



# NORTHERN COLORADO REGIONAL AIRPORT COMMISSION

4900 EARHART ROAD • LOVELAND, CO 80538

## MEETING AGENDA THURSDAY, NOVEMBER 16, 2023 3:30PM – 5:00PM

### CALL TO ORDER

### ROLL CALL

### PUBLIC COMMENT

### CONSENT AGENDA

1. OCTOBER 19 MEETING MINUTES – P. 2
2. OCTOBER FINANCIAL STATEMENT – P. 6
3. OCTOBER DIRECTOR'S REPORT – P. 8
4. UTILITY EASEMENT FOR NEW TERMINAL FACILITY – P. 52
5. TAXIWAY B&D AND TAXILANE REHABILITATION DESIGN AND ENVIRONMENTAL – P. 58

### APPROVAL OF CONSENT AGENDA

### AIRPORT DIRECTOR'S REPORT HIGHLIGHTS

### REGULAR AGENDA

6. REMOTE TOWER UPDATE – P. 144
7. 2024 RATES AND FEES RECOMMENDATION TO CITY COUNCILS FOR ADOPTION – P. 150
8. BUSINESS FROM MEMBERS

### PULLED CONSENT AGENDA ITEMS

### ADJOURN

## Meeting Planning Calendar

<u>December 21</u>	<u>January 18</u>	<u>February 15</u>
<ul style="list-style-type: none"><li>•Draft Land Use/Development Review Plan</li><li>•Legal: Commission Roles and Responsibilities Training</li><li>•Election of Officers for 2024</li><li>•Meeting Schedule for 2024</li></ul>	<ul style="list-style-type: none"><li>•2023-2024 Strategic Plan Update</li><li>•Planning &amp; Development Subcommittee (PDSC) Charter Update</li></ul>	<ul style="list-style-type: none"><li>•Terminal Construction Update</li></ul>

**October 19, 2023 REGULAR MEETING SIGN IN SHEET**

**Please Print Your:**

**NAME**

**ORGANIZATION**

NAME	ORGANIZATION
Dallas Heltzell	BizWest
Jack Marsh	City of Loveland
Pat Farmer	Choradom
Kelly Freeland	The Flying School
Cayland Bode	N/A
Henry Scherer	FNL Pilots Assoc
Nicole Yost	City of Loveland
James Ates	THangartenant - Future buyer?
Martin Lim	Discovery
Theo Banker	Pilot/Hangar owner
Adam Woodward	EVTRA
Robert Carmosino	LFRA
BOB MASSARO	SELF
Erin Black	



## Meeting Minutes for October 19, 2023

### CALL TO ORDER

Chair Overcash called the meeting to order at 3:31 p.m.

### ROLL CALL

Chair Overcash, Commissioners Adams, Burgener, DiMartino, Stooksbury, and Williams were present. Commissioner Arndt was absent.

**Chair Overcash welcomed the new Commissioner, Mick Williams, as the Fort Collins Appointed Citizen Member.**

**Chair Overcash requested to move the Director's Report prior to Public Comment. All Commissioners present consented.**

### MONTHLY REPORT

David Ulane, Director of CDOT Aeronautics, provided an update regarding Searidge's resignation from the Remote Tower project.

- The Remote Tower is the FAA's project, and they have not yet provided a response to Searidge's letter. The FAA selected Searidge and the FNL site, and they own the equipment.
- It is prudent to take the first steps toward building a physical tower while still moving forward with the Remote Tower project.
- CDOT continues to pursue the Remote Tower and sees value in utilizing technology as other countries have.
- Currently, a timeline is not available for a physical tower.
- Jackie Marsh, Mayor to the City of Loveland, requested notes and meeting minutes for the Remote Tower Update Meeting held on August 2, 2023.

The RFP for C-hangar repairs is open for submittals until October 26th. The environmental study for hangar demolition is underway.

Terminal construction is on track with Hensel Phelps.

Snow and Ice Control Plan training with staff and stakeholders is complete.

Pavement repairs are in progress in multiple locations.

### PUBLIC COMMENT

Martin Lind with Discovery Air suggested abandoning the remote tower project to build a brick-and-mortar tower and expressed safety concerns for air traffic.

Kelly Freeland with the Flying School requested information on what the airport is doing to oversee hangar use for non-aeronautical purposes, as well as clarification on runway 6-24 landing procedures



and 15-33 widening impacts.

Erin Black stated that there needs to be a safe place for students to practice.

Bob Massaro stated that the tower is essential and encouraged the Commission to make moves now to quit losing money from commercial service providers.

Gayland Bode presented a noise complaint caused by student pilots flying too low over his residence repeatedly.

## CONSENT AGENDA

**Commissioner Williams moved to approve Consent Agenda. The motion, seconded by Commissioner DiMartino, carried with all Commissioners present voting in favor thereof.**

Pulled Items: None  
Consent Follow up: None  
Public Comments: None

## REGULAR AGENDA

### **6. 5-Year Capital Improvement Plan (ACIP) Draft Review**

Aaron Ehle, Airport Planning and Development Specialist, presented this item in accordance with the staff report.

The Airport Capital Improvement Plan is updated annually to identify and prioritize projects for the next five years while maintaining accurate project cost estimates and the status of available resources. Projects must be identified on the 2020 Master Plan for the FAA to evaluate and potentially fund them.

The Airport will request reimbursement for the brick and mortar tower survey and environmental study if the CIP needs to be amended due to changes with the remote tower project.

The new fuel farm site pre-construction work was pushed to 2025 at the direction of the FAA. The City would have to fund any environmental and design work conducted in 2024, and then potentially be reimbursed later on.

Commissioner Williams requested to have a project manager from the FAA visit the remote tower on-site.

Martin Lind with Discovery Air commented that the private sector may be interested in funding a parallel runway if they have a say in timeline, decisions, and other factors since the airport does not currently have the infrastructure to support commercial service.





Commissioner Stooksbury moved to approve the draft ACIP. The motion, seconded by Commissioner Williams, carried with all Commissioners present voting in favor thereof.

**7. Planning and Development Subcommittee (PDSC) Charter Update**                      Item tabled for a future Commission meeting.

**10. Business from Members**                                      None.

**ADJOURNMENT**                                      Chair Overcash adjourned the meeting at 5:12 p.m.

Respectfully Submitted,

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Commission Chair, Don Overcash

DRAFT



# NORTHERN COLORADO REGIONAL AIRPORT

4900 Earhart Rd • Loveland, Colorado 80538

(970) 962-2850 • FAX (970) 962-2855 • TDD (970) 962-2620

**ITEM NUMBER:** 2

**MEETING DATE:** November 16, 2023

**PREPARED BY:** Francis Robbins, Operations & Maintenance Manager

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## **TITLE**

Monthly Financial Statement

## **RECOMMENDED AIRPORT COMMISSION ACTION**

Staff recommend acceptance of the preliminary financial statement as presented.

## **BUDGET IMPACT**

Neutral

## **SUMMARY**

Financial highlights for the month of October include:

- The monthly statement indicates just over \$6.76 million within the net position available for use. This amount includes \$6 million as approved by the Airport Commission and City Councils to be applied toward the terminal project. Within this amount \$2 million is from the CARES Act operations and maintenance grant, which has been fully drawn down and input in the account, \$2 million for the local matching contribution, and \$2 million in City Contributions.
  - An accurate net position available for use is \$760,000. Grant reimbursement requests will continue throughout the terminal project and this figure will vary depending on timing of pavements to contractors and reimbursements from the FAA.

## **ATTACHMENT**

Preliminary monthly financial statement for October.



NORTHERN COLORADO  
REGIONAL AIRPORT

Airport Statement of Revenues and Expenses  
From 01/01/2023 - 10/31/2023

PRELIMINARY

	Y-T-D 2023 Actual	Y-T-D 2022 Actual	Y-T-D 2023 Budget	2023 Total Budget	% of Total Budget
<b>OPERATING REVENUES</b>					
Hangar Rental	175,497	179,332	191,250	255,000	69%
FBO Rent	78,476	70,629	70,603	94,134	83%
Gas and Oil Commissions	226,272	253,767	142,497	190,000	119%
Aviation Fuel Tax Reimbursement	214,602	145,392	124,875	166,500	129%
Land Lease	522,465	399,077	375,003	500,000	104%
Land Lease PD Training Ctr	309,128	285,114	293,706	391,600	79%
Terminal Lease and Landing Fees	35,823	8,999	9,306	12,400	289%
Parking	0	0	0	0	0%
Miscellaneous	69,730	84,803	108,675	144,900	48%
<b>TOTAL OPERATING REVENUES</b>	<b>1,631,993</b>	<b>1,427,112</b>	<b>1,315,915</b>	<b>1,754,534</b>	<b>93%</b>
<b>OPERATING EXPENSES</b>					
Personal Services	691,043	539,793.28	817,155.00	1,089,540	63%
Supplies	74,139	77,495.20	96,062.00	124,900	59%
Purchased Services	503,148	345,667.46	1,120,267.03	1,496,860	34%
<b>TOTAL OPERATING EXPENSES</b>	<b>1,268,330</b>	<b>962,956</b>	<b>2,033,484</b>	<b>2,711,300</b>	<b>47%</b>
<b>OPERATING GAIN (LOSS)</b>	<b>363,662</b>	<b>464,156</b>	<b>(717,569)</b>	<b>(956,766)</b>	
<b>NONOPERATING REVENUES (EXPENSES)</b>					
City Contributions	2,000,000	0	2,000,000	2,000,000	100%
Passenger Facility Charge	0	0	0	0	
Interest Income	59,207	18,040	38,250	51,000	116%
Capital Expenditures	(3,202,927)	(831,319)	(23,168,754)	(30,891,667)	10%
<b>TOTAL NONOPERATING REVENUES (EXPENSES)</b>	<b>(1,143,720)</b>	<b>(813,279)</b>	<b>(21,130,504)</b>	<b>(28,840,667)</b>	
<b>NET INCOME (LOSS) BEFORE CAPITAL CONTRIBUTIONS</b>	<b>(780,058)</b>	<b>(349,122)</b>	<b>(21,848,073)</b>	<b>(29,797,433)</b>	
Capital Contributions	1,743,119	637,740	23,436,000	31,248,000	6%
<b>CHANGE IN NET POSITION</b>	<b>963,061</b>	<b>288,618</b>	<b>1,587,927</b>	<b>1,450,567</b>	
NET POSITION, Beginning	21,237,480	19,864,422			
NET POSITION, Ending	22,200,541	20,153,040			
Investment in Capital Assets	15,440,026	15,805,175			
Net Position Available for use	6,760,515	4,347,865			



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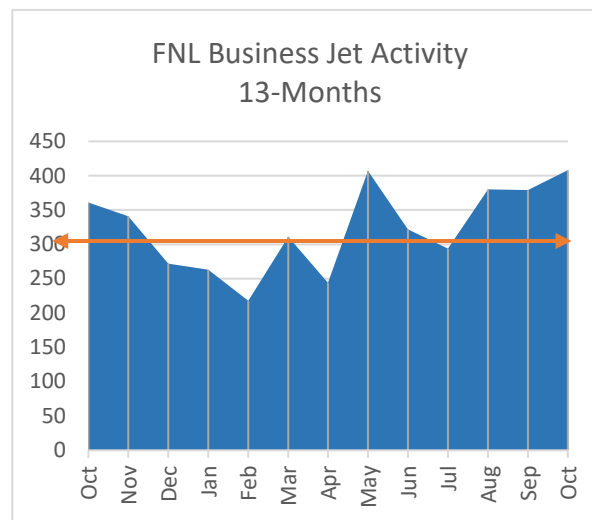
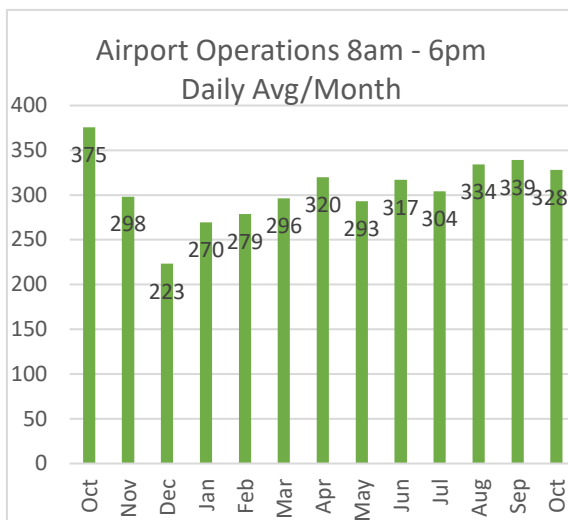
Date: November 16, 2023  
 To: Northern Colorado Regional Airport Commission  
 From: David Ruppel, Airport Director  
 Re: October Airport Report

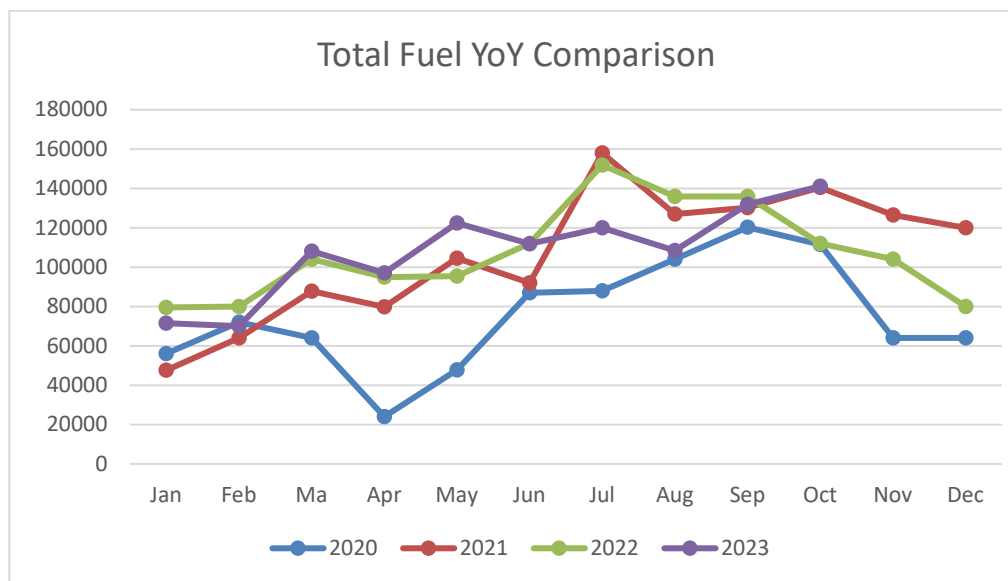
## Report Highlights

- The C-Hangar repair requirements are being evaluated by the contractor, Iron Fly Steel Fabrication, to determine phasing and scheduling. The work is expected to be completed in January.
- Environmental review of the A and B Hangar demolition is ongoing. Asbestos and lead paint testing has been completed and sent out for evaluation. Coring and soils testing is underway this week.
- The Remote Tower Project Team is working with the FAA to identify a follow-on vendor to replace Searidge, who submitted a letter in October stating its intention to withdraw from the project.
- Hensel Phelps has been running a couple of weeks ahead of schedule but has had to reset to their original schedule due to construction delays. Slabs will be installed in early December and steel erection will begin in late December or early January.

## Airport Activity Dashboard

- Flight operations for the month of October averaged 328 per day, and the twelve-month rolling average is 306.
- Wholesale fuel ordered by the jetCenter FBO was 141,103 gallons for the month of October, a decrease of just over 1% compared to the previous October at 142,981 gallons.
  - Total year to date fuel for jetCenter is down 14% year over year.
  - Total fuel flowage through October is 1,121,628 gallons compared to 1,298,163 gallons in 2022.
- Business jet activity for October compared to the same month in 2022 was up 12%, going from 361 to 408 operations.





### Airport Owned T-Hangars Update

Iron Fly Steel Fabrication, the company that won the C-Hangar Repair contract, is evaluating what will be required for the repairs on each hangar and determining phasing and scheduling. They will be working with the individual tenants concerning whether they will need to be moved into a vacant hangar or merely move their plane out for the repairs. Some repairs are expected to take less than a day and Iron Fly will be developing an overall plan and schedule. The work is expected to be completed in January.

### Remote Tower

The Remote Tower Project Team continues to work with the FAA to identify a follow-on vendor to replace Searidge, who submitted a letter in October stating its intention to withdraw from the project. A company named Frequentis who is partnered with Raytheon for the development of Remote Tower Technology, has been accepted into the FAA Tech Center in Atlantic City and is evaluating the opportunity to run a parallel track for their airport system at FNL. This is a tactic that the FAA is open to and would significantly accelerate the certification process for Frequentis. Frequentis has already completed the document intake portion of the System Design Approval process and visited FNL this week to evaluate their options here.

### Terminal

Foundation work continues with installation of the final Grade Beams to support the slab installation in early December. Grade Beams, concrete placement and formwork removal are complete on about most of the project. Backfilling and final preparation for the slab installation is underway. Construction is on schedule to begin steel installation in late December or early January.

The DiTesco construction summary is attached.

### Mobile Tower Line-of-Sight

Serco, the company that provides the ATC Controllers, is still working with the FAA on whether FNL will need to continue to NOTAM Runway 6/24 closed during Tower operation hours. We are expecting a response from the FAA on the final determination by the ATO to resolve this issue.

FNL is still working with the FAA and the Remote Tower Project Team to get approval for a STARS repeater display in the Mobile ATCT. The controllers and Air Traffic are in favor of this proposal since it will support

better situational awareness and a safer operating environment at FNL. Installation of a STARS display in a Mobile ATCT is considered a non-standard configuration and must be approved by ATO. STARS is the Airport Radar system installed with the Remote Tower System.

### **Governance Study**

The internal support team is working with both Cities to determine the best format for evaluating the Governance options presented by DSR LLC. Once the two Cities agree on the best structure for evaluation of the options, DSR LLC and the two Cities legal staffs will facilitate those discussions to determine the best path forward for Airport Governance.

### **Parking Lot Pavement**

The airport has contracted with Goltz Asphalt to replace the failing asphalt in the bus lane with compacted asphalt millings that can be repaired more easily than the existing asphalt. Airport staff have also been working with TSA to obtain a change to our Security Program that would allow the LandLine buses to pick up and drop off on the airside. The approval for that change came through this month and we are working with LandLine to train drivers and other staff for the new operation. The training is expected to be completed after Thanksgiving and the airside operation will begin at that time. Passengers will proceed through the Terminal and load on the buses similar to airline passenger loading.

### **Airport Scheduled Events**

- None this month.
- Airport Administration Offices will be closed on November 23 and 24 for the Thanksgiving Holiday.

### **Attachments**

1. Northern Colorado Regional Airport Terminal Construction Report
2. Loveland Fire and Rescue Authority ARFF monthly report
3. Remote Air Traffic Control Contract Progress Report #28
1. Snow and Ice Training for Pilots



# Northern Colorado Regional Airport Terminal



Building foundation progress



Underslab conduit installation



Underslab sanitary drain installation

## MAJOR MILESTONES

- Site water, storm, and sanitary utility installation is complete.
- Building foundation grade beam formwork, reinforcement, and concrete placement is underway.
- Underslab utility installation is underway.

## WORK UPCOMING

- Foundation waterproofing application.
- Foundation backfill.
- Building slab concrete placement.
- Building steel frame erection.



**EXPENDITURE TO DATE**  
**\$2,589,594**  
CONTRACT VALUE: \$15,036,433

**CHANGE ORDER PERCENTAGE**  
**1%**  
**DAYS CHARGED TO DATE**  
**106**  
ORIGINAL CONTRACT: 422 DAYS

## LOOK AHEAD SCHEDULE

	OCTOBER	NOVEMBER	DECEMBER	JANUARY
Building foundation grade beam concrete placement				
Underslab utility installation				
Foundation backfill				
Building slab concrete placement				
Building steel frame erection				





## Weekly Report - FNL Airport Terminal 11/10/23

Tasks underway/completed 11/06/23 - 11/10/23: Grade beam seven concrete placement. Pier cap concrete placement at D-6 and D-7. Pier condition verification and repair work underway. Work scheduled for 11/13/23 - 11/17/23: Backfill of piers following condition verification and repair completion. Remaining under slab electrical installation. Grade beam waterproofing application and insulation installation.

### Photos

Weekly Report

**Taken On**  
11/08/2023

**Description**  
Pier exposure and condition verification.



Weekly Report

**Taken On**  
11/09/2023

**Description**  
Under slab utility trench backfill.





Weekly Report

**Taken On**  
11/09/2023

**Description**  
Grade beam seven  
concrete placement.



Weekly Report

**Taken On**  
11/09/2023

**Description**  
Pier cap concrete  
placement



## Weekly Report - FNL Airport Terminal 11/03/23

Tasks underway/completed 10/30/23-11/03/23: Grade beam four and six concrete placement completed. Under slab plumbing trench excavation and bedding installation underway. Pier condition verification underway. Work Scheduled for 11/06/23-11/10/23: Remaining pier verification, remediation and backfill. Under slab plumbing installation. Under slab electric installation. Grade beam seven formwork, reinforcement, and concrete placement.

### Photos

Weekly Report

**Taken On**  
11/02/2023

**Description**  
Grade beam six  
concrete placement.



Weekly Report

**Taken On**  
11/02/2023

**Description**  
Under slab sanitary  
drain installation.



Weekly Report

**Taken On**  
11/02/2023

**Description**  
Grade beam four  
concrete placement.



Weekly Report

**Taken On**  
11/02/2023

**Description**  
Under slab  
electrical/  
communication  
conduit installation.





## Weekly Report - FNL Airport Terminal 10/20/23

Tasks underway/completed 10/20/23-10/27/23: Grade beam 4 and 6 reinforcement installation completed. Under slab plumbing trench excavation and bedding installation underway. Work Scheduled for 10/30/23-11/03/23: Drilled pier placement condition verification and remediation prior to grade beam 4 and 6 concrete placement. Under slab plumbing installation. Under slab electric installation.

### Photos

[Weekly Report](#)

**Taken On**  
10/24/2023

**Description**  
Grade beam  
formwork and  
reinforcement  
installation.



[Weekly Report](#)

**Taken On**  
10/25/2023

**Description**  
Electrical conduit  
installation





Weekly Report

**Taken On**  
10/25/2023

**Description**  
Grade beam  
formwork and  
reinforcement



Weekly Report

**Taken On**  
10/26/2023

**Description**  
Underslab sanitary  
drain trench  
excavation and  
bedding placement.



## Weekly Report - FNL Airport Terminal 10/20/23

Tasks underway/completed 10/16/23-10/20/23: Grade beam 4 concrete placement and formwork removal complete. Grade beam 5 form work and reinforcement installation underway. Under slab utility trenching underway. Work Scheduled for 10/23/23-10/27/23: Grade beam 5 concrete placement. Under slab plumbing excavation.

### Photos

[Weekly Report](#)

**Taken On**  
10/18/2023

**Description**  
Grade beam 4  
concrete placement.



[Weekly Report](#)

**Taken On**  
10/19/2023

**Description**  
Grade beam 4  
formwork removal.





Weekly Report

**Taken On**  
10/19/2023

**Description**  
Grade beam 5  
formwork and  
reinforcement



Weekly Report

**Taken On**  
10/19/2023

**Description**  
Underslab electrical  
conduit installation.



Happy November!

**Airport:**

- With regards to the notification of Searidge leaving the Remote Tower... **please note that the mobile ATC tower is NOT going anywhere. We will continue ATC operation as it has been since 2020.** The Remote Tower Project will be on hold until there is a new operational company to oversee it. There will be no change to our response procedures.
- Get connected to Denver flights through Landline! You can search your favorite travel site (ie. [Priceline](#), [Expedia](#)) and enter Fort Collins (FNL) as your departure airport.
  - Kids ride free and parking at NoCo Regional is free! There are over 8 trips a day to Denver International!
  - <https://landline.com/>
- Airport Commission meeting will be held on **November 16th, 3:30-5:00pm** at the Fire Station conference room
- Airport terminal construction is ahead of schedule and well underway! Please see the [www.flynoco.com](http://www.flynoco.com) website for all airport commission updates involving the terminal construction!



**ARFF:**

- So far in 2023, we've had-
  - 16 Alert incidents
  - 10 Diversion flights from DIA due to weather
  - 51 Scheduled air-carrier flights
- We have already matched our incident numbers from 2022.

**\*\*\*Scheduled Air-Carrier Flights for November:**

\*\*\*\*Squad 46 will be assigned to scheduled air-carrier flights unless otherwise assigned by the LFRA Shift BC.

Day	Date	Flight #	Airline	Arrival Time	Departure Time	Aircraft	Team/Notes
Fri	Nov. 3	4951	Allegiant	1624	RON	A320/19	Idaho Football IN
Sat	Nov. 4	8237	Sun Country	1049	1135	B737-800	Casino Charter IN
Sat	Nov. 4	4952	Allegiant	RON	1830	A320/19	Idaho Football OUT, JC Crew here 1600
Fri	Nov. 10	4670/4671	Allegiant	1030	1230	A320/19	UNC Football OUT
Fri	Nov. 10	8611	Sun Country	1605	RON	B737-800	San Diego St Football IN
Sat	Nov. 11	4672/4673	Allegiant	1958	2048	A320/19	UNC Football IN
Sat	Nov. 11	8611	Sun Country	RON	2200	B737-800	San Diego State FB OUT
Fri	Nov. 17	4066	Allegiant	1515	RON	A320/19	Nevada Football IN
Sat	Nov. 18	4067	Allegiant	RON	1830	A320/19	Nevada Football OUT, JC Crew here 1630
Mon	Nov. 27	8237	Sun Country	1855	1945	B737-800	Casino Charter
Fri	Dec. 1	8241	Sun Country	0950	1035	B737-800	Casino Charter
				<b>Color Codes</b>			
				Casino	RON = Remain Overnight	Recent Time Change	
				UNC Football			



				CSU Football			
				CSU/UNC/ Wyo Opp.			

*Have a great month!!!*

**Gina Gonzales**

**ARFF Lead Engineer**

Loveland Fire Rescue Authority

LFRA Fire Station 4, Northern Colorado Regional Airport



970-568-6026 – business cell – for messages as well

[gina.gonzales@lfra.org](mailto:gina.gonzales@lfra.org) - email

[www.lfra.org](http://www.lfra.org)



NORTHERN COLORADO  
REGIONAL AIRPORT

[www.flynoco.com](http://www.flynoco.com)

*\*\*Like the flight attendant says, "First put the oxygen mask on yourself... only then can you help someone else with theirs"*



October 31, 2023

From: William E. Payne, P.E.  
 To: Colorado Division of Aeronautics

**Section A – Remote Air Traffic Control Contract Progress Report #28**

Re: Period: October 1 through October 31, 2023

<b>Colorado Remote Tower Project</b>			
<b>Activity Status</b>			
Activity	Status/Start Date (Projected)	Finish Date (Projected)	Remarks
<b>Remote Tower Implementation</b>			
STARS Operational at FNL	11/25/2022	12/15/2022	Local Adaption and Mapping Complete
<b>Remote Tower System</b>			
System Upgrade - Tech Refresh	In-Progress		
<b>Remote Tower Testing</b>			
<b>FAA Stop Work Order</b>	<b>10/7/2022</b>	<b>11/11/2022</b>	<b>Vendor Addressing Deficiencies</b>
OVR Ver 2.1	3/4/2023	3/4/2023	Delivered to Vendors
4K Camera and Display Test at FNL	3/27/2023	3/31/2023	Complete
Vendor Requests Extension of Stop Work Order	4/14/2023	4/14/2023	FAA Consider Request on 4/27/2023
FAA Considers Stop Work Order Extension	4/27/2023	4/27/2023	FAA Grants 6 Month Extension
Install Full System Upgrades			
<b>October 3, 2023 Searidge Sends letter to FAA withdrawing from the Project</b>			
Meet with NextGen	10/16/2023	10/16/2023	Complete
<b>Meeting with sucesor vendor - Site Survey</b>	<b>11/2023</b>	<b>11/2023</b>	
Phase 1B - Passive Re-testing	TBD	TBD	
Safety Risk Manage Panel	TBD	TBD	FAA Forecast Schedule 1 week duration
Safety Risk Management Document Signed	TBD	TBD	FAA Forecast Schedule 6 months
Phase 2 - Active Testing	TBD	TBD	Subject to FAA Phase 1 SRMD Signatures
Safety Risk Manage Panel	TBD	TBD	
Safety Risk Management Document Signed	TBD	TBD	
Phase 3 - Validation & Verification	TBD	TBD	Subject to FAA Phase 2 SRMD Signatures
Safety Risk Manage Panel	TBD	TBD	
Safety Risk Management Document Signed	TBD	TBD	
Operational Viability Decision (OVD)	TBD	TBD	
Phase 4 - Post OVD Validation & Verification	TBD	TBD	Subject to FAA Phase 3 SRMD Signatures
Safety Risk Manage Panel	TBD	TBD	
Safety Risk Management Document Signed	TBD	TBD	
<b>Certification/Commissioning</b>	<b>TBD</b>	<b>TBD</b>	

Note: All dates reflect latest FAA proposed schedule and are subject to change based on FAA SME's ability to travel to FNL

## **Remote Tower Project Narrative:**

As of this writing the FAA has not formally responded to the Searidge letter of October 8, 2023, indicating its desire to withdraw from the remote tower project unless FAA lifts the Stop Work Order. In the letter, Searidge indicated its desire to continue discussions with an eye toward co-funding the project in order to keep it moving. The FAA can either elect to lift the Stop Work Order and permit Searidge to complete the project or, failing to do so, accept Searidge's withdrawal which will pause the project until a suitable alternative can be implemented to allow airport traffic control to continue at the Northern Colorado Regional Airport (FNL).

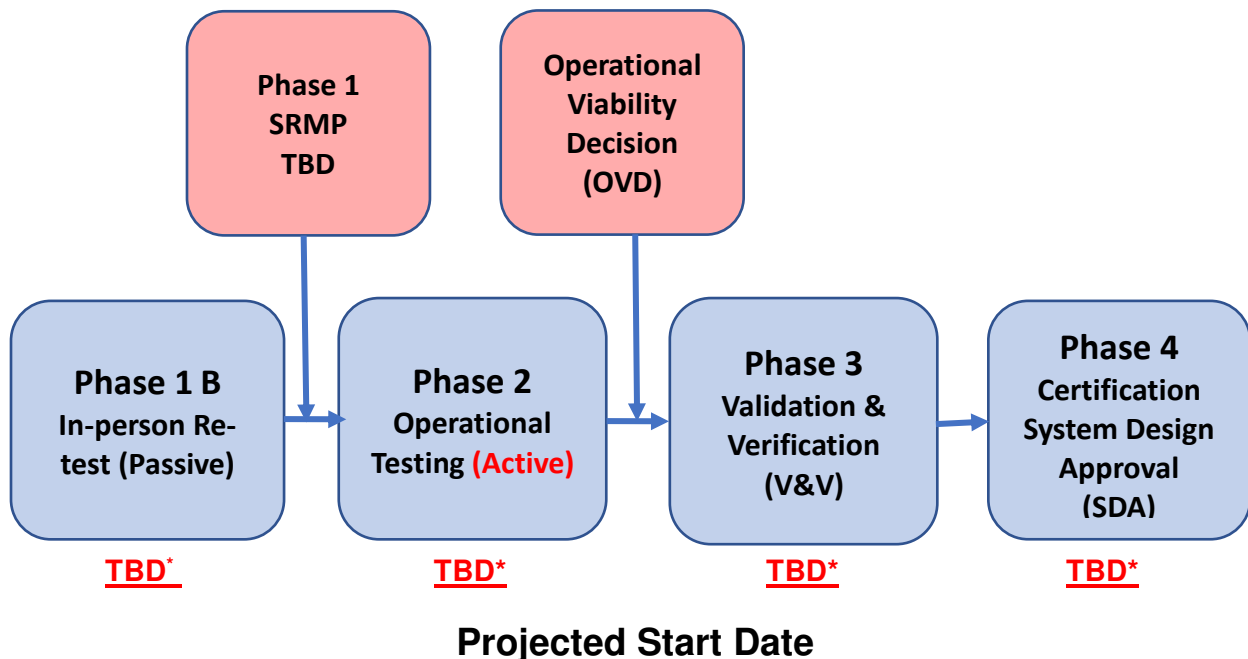
On October 16<sup>th</sup> the Aeronautics Director, FNL interim Manager and I met with NextGen leadership to begin to discuss the path forward. We sent the attached proposal outlining the two options that would preserve airport traffic control at FNL. The preferred option, should Searidge not continue, would be to bring on a successor vendor to complete the project. To that end, I have been meeting with a series of candidate vendors for the past several months in anticipation of the eventuality of Searidge not being in a position to complete the project.

The airport is understandably anxious over the prospect of losing airport traffic control. In the proposal, we requested that the FAA admit the airport into the Federal Contract Tower Program with an operational mobile ATCT until such time as they implement a permanent solution. It should be realized that FNL has been the beneficiary of airport traffic control, at no cost to the airport, since March 2020 as a result of being selected as the site for the Colorado Remote Tower Program in September 2015.

The attached presentation was prepared to present the two options in the eventuality the FAA elects not to move forward with Searidge. It lays out the advantages and disadvantages of each and shows a draft timeline for each as well as the process that will be followed at the FAA's Technical Center to qualify the follow-on vendor. To support the decision, I am preparing a detailed cost estimate for each option and comparative analysis to illustrate the economic impacts of each.

The State of Colorado and the FAA have invested significant funds in the remote tower project at FNL. If the FAA will support the State's efforts to enlist a successor vendor to complete the project, it will be a win for the State, FAA and FNL--the State by realizing a tangible return on its investment, the FAA by having a successful remote tower project and FNL which will receive, at a fraction of the cost of a traditional ATCT, airport traffic control services.

## Proposed Remote Tower Testing Phases:



**\*Dependent on local resources' ability to travel to FNL and COVID status.**

**Schedule Note:** This status is based on the latest proposed schedule and is dependent upon availability of FAA resources to staff the remote tower and support the Phase 1 SRMP.

Note: The FAA has replaced the term Initial Operating Capability (IOC) with Operational Viability Decision (OVD). This may change again as the terminology of remote tower certification is in flux.

## REMOTE TOWER PROJECT PROGRAM MANAGEMENT

### Program Description/Background

The Program Manager for this project, William E. Payne, will serve as a technical subject matter expert to represent the Division's investment and interest in the Remote Tower and facilitate the project's forward progress to FAA certification and deployment. The Program Manager will participate in and assist with the development of all evaluation, testing, and certification activities, as well as attend all project meetings, and will serve as the technical representative for the Division of Aeronautics during all phases of the project as enumerated below.

Tasks:

**1. Provide Technical Representation and Oversight of the Project**

Effort this Period: Completed.

**2. Participate in Development of the FAA's Operational Safety Assessment (OSA) Basis for Evaluation of Non-Federal Remote Tower Equipment**

Effort this Period: The OSA is still in draft form and is continuing to be developed as the project proceeds toward System Design Approval.

**3. Participate in Development of the Operational Visual Requirements (OVR)**

Effort this Period: The OVR Version 2.1 has been issued.

**4. Participate in Development of the Requirements/Specifications for Non-Federal Tower Equipment**

Effort this Period: Participated in the FAA TechOps review and commented on the Remote Tower Requirements Document and prepared comments on OVR 2.1. Completed.

**5. Assist with Development of System Configuration**

Effort this Period: The system configuration will be modified based on lessons learned 4K cameras and displays for demonstration on March 27, 2023.

**6. Modify System Configuration Based on Testing Phase Comments**

Effort this Period: Completed by Searidge.

**7. Run Periodic Tests of the Remote Air Traffic Control Tower System During Periods of Evaluation/Testing Inactivity**

Effort this Period: Complete.

**8. Attend System FAA Technical Interchange Meetings (TIM)**

Effort this Period: Provided SME representation in the recent FAA discussion of OVR 2.1. Completed.

**9. Participate in FAA Configuration Review Board (CRB) Activities**

Effort this Period: NextGen has yet to establish the CRB. This effort may be rolled into development of the Remote Tower AC.

**10. Evaluate an Air Situation Display in Preparation for Testing Against Standard Terminal Automation Replacement System Radar Equipment (STARS).**

Effort this Period: Complete.

**11. Collaborate with FAA on Alternate Phase 1 Virtual/Remote Testing**

Effort this Period: Complete

**12. Work with FAA to develop and Implement Phase 1 Passive Remote Tower Testing**

Effort this Period: Complete

**13. Work with FAA to Develop and Implement Phase 2 Active Remote Tower Testing**

Effort this Period: There has been no activity on this task this period.

**14. Work with FAA and FNL on Phase 3 Industry-Led Initial Operational Capability (IOC)**

Effort this Period: This task has been renamed Validation & Verification (V&V.) There has been no activity on this task this period. Phase 3 Active Remote Tower Testing will begin after Phase 2 Active Remote Tower testing is complete and the SRMD has been signed.

**15. Work with FAA on Phase 4 Remote Tower System Certification and Commissioning**

Effort this Period: There has been no activity on this task this period. Phase 4 System Design Approval and Commissioning will begin after the conclusion of Phase 3 V&V and the SRMD has been signed.

**16. Participate in Development of the FAA's Advisory Circular (AC) for Remote Tower Systems for Non-Federal Applications**

Effort this Period: Continue participation in the FAA TechOps TIM to review and comment on the Remote Tower Advisory Circular.

**17. Provision of Regular Written Reports, Presentations and Updates on the Project's Progress to Internal and External Stakeholders**

Effort this Period: Preparation of the monthly Program status report.

**18. Travel as Needed (In-State and Out of State) for Meetings with FAA, Airport and Division Personnel**

Effort this Period: Travel to FNL for meetings with Airport Board and the Cities of Fort Collins and Loveland.

## **DEVELOPMENT OF POTENTIAL ENHANCED SITUATIONAL AWARENESS TOOLS FOR NON-TOWERED AIRPORTS**

### Tasks:

- 1. Explore the Potential Development of a System Consisting of Existing and New Surveillance Sources that can be Deployed, Owned and Operated by Non-Towered Airports to Provide Airport Staff with Improved Visibility into the Local Airspace and on the Airport Surface, with the Ultimate Goal of Improving Aviation Safety and System Efficiency.**

Effort this Period: No activity this period.

- 2. Prepare System Requirements to be Used by Airports and/or the Division when Seeking Vendor Proposals to Implement a Situational Awareness System.**

Effort this Period: No activity this period.

## Glossary of Project Technical Acronyms

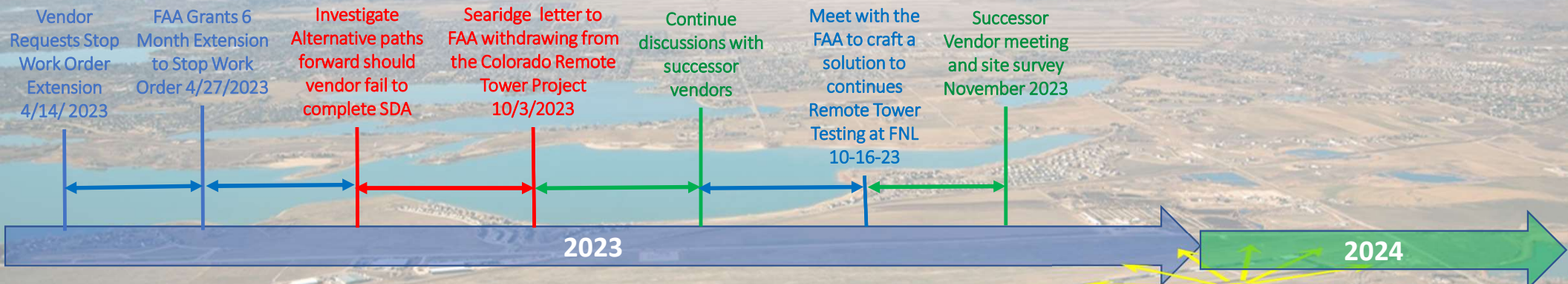
ADS-B	Automatic Dependent Surveillance – Broadcast
AGL	Above Ground Level
ARTCC	Air Route Traffic Control Center
ASDE-X	Airport Surface Detection Equipment – Model X
ASOS	Automatic Surface Observation System
ASR-9	Airport Surveillance Radar – Model 9
AWOS	Automatic Weather Observation System
ATC	Air Traffic Control
ATIS	Automatic Terminal Information System
AJT	Air Traffic Services
AJI	Safety Technical Training Services
AJV	Mission Support Policies and Procedures
CTAF	Common Traffic Advisory Frequency
ERAM	En Route Automation Modernization
FAA	Federal Aviation Administration
FAT	Factory Acceptance Test (alternately - First Article Test)
FDIO	Flight Data Input/Output
FTI	Federal Communications Infrastructure (Harris Corp.)
GA	General Aviation
HITL	Human In the Loop
HMI	Human Machine Interface
ILS	Instrument Landing System
IOC	Initial Operating Capability
IMC	Instrument Meteorological Condition
LOA	Letter of Agreement
MLAT	Multilateration
MSL	Mean Sea Level (above)
NAS	National Air Space
NATCA	National Air Traffic Controllers Association
NESG	NAS Enterprise Security Gateway
NextGen	Next Generation Air Transportation System
NORDO	No Radio
OSA	Operational Safety Assessment
OTW	Out of the Window
OVD	Operational Viability Decision
RSA	Runway Safety Area
SAT	Site Acceptance Test
SDA	System Design Approval
SMR	Surface Movement Radar
SMS	Safety Management System
SRA	Safety Risk Assessment
SRMD	Safety Risk Management Document
SRMDM	Safety Risk Management Document Memorandum
SRMP	Safety Risk Management Panel
SHA	System Hazard Analysis
SSHA	Sub-System Hazard Analysis
STARS	Standard Terminal Automation Replacement System
SWIM	System Wide Information Management
TAMR	Terminal Automation Modernization and Replacement
TRACON	Terminal Radar Control Facility
UHF	Ultra High Frequency
VFR	Visual Flight Rules
VHF	Very High Frequency
VMC	Visual Meteorological Condition



## ATTACHMENTS

1. FNL "Draft Graphic Remote Tower Timeline" as of October 31, 2023.
2. FAA Proposal.
3. Presentation of FNL Options for the Colorado Aeronautics Board.

# Colorado Remote Tower Timeline (Draft)



- Abbreviation Key**
- SRMP - Safety Risk Management Panel
  - SRMD – Safety Risk Management Document
  - STARS – Standard Terminal Automation Replacement System
  - SDA – System Design Approval (System Type Certification)
  - Ops – Operations
  - TBD – To Be Determined
  - OVD – Operational Viability Decision
  - V&V – Validation & Verification

- Upcoming activity
- Complete
- Critical Path Item



# COLORADO Remote Tower PROJECT



**COLORADO**  
Department of Transportation  
Division of Aeronautics



**NORTHERN COLORADO**  
REGIONAL AIRPORT

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October 9, 2023

## **Background:**

On October 3, 2023, Searidge Technologies sent the attached letter to the FAA withdrawing from the cooperative remote tower project at the Northern Colorado Regional Airport (FNL) if an agreement cannot not be reached to remove the stop work order. This places the FAA in a difficult position. Without a vendor to continue the remote tower project, the FAA will not be able to continue to support the mobile airport traffic control tower (ATCT) that became operational in March 2020 as the safety mitigator during testing of the remote tower at FNL. This situation places the airport in the untenable position of possibly losing its airport traffic control services upon which the airport users rely for safe operation.

Termination of airport traffic control services represents a significant safety hazard that will result in an unacceptable level of risk given the airport's operational level. FNL has between 300-350 operations daily from training aircraft, corporate jets, Part 135, and charter operations. This level of activity, as a non-towered airport, will present challenges to both local and transient traffic. Illustrating this point, prior to installation of the mobile ATCT at FNL, two accidents occurred that could have been prevented had the airport been controlled:

1. On December 14, 2014, a Cirrus S-22 was damaged from the downwash of an Army UH-60 Black Hawk helicopter, due to inadequate separation.
2. On January 26, 2018, a midair collision between a Beechcraft Bonanza and a helicopter occurred on Runway 15-33. Both aircraft sustained substantial damage, but no serious injuries resulted.

## **Proposed Path Forward:**

As a financial partner of this paradigm shifting project, the State of Colorado and the Northern Colorado Regional Airport request the following be considered to maintain continuity of airport traffic control services at FNL and to explore a path forward to make the remote tower system at FNL a success. The State and the airport would propose the following to reach these goals:

1. As FNL has been accepted as a candidate into the Federal Contract Tower (FCT) Program (see attached letter), the State and the airport request that the FAA allow FNL into the FCT Program based on air traffic control being provided by the mobile ATCT for a period of 5 years until a suitable alternative solution can be determined.
2. As Colorado values its early role in the FAA's development of emerging remote tower initiatives across the nation, and given its \$8.8 million investment in this project, the

State and the airport are keenly interested in working with the FAA to pursue identification of a suitable successor vendor to continue and complete the remote tower project at FNL.

3. Simultaneously, FNL will pursue siting of a traditional ATCT as an additional alternative to continue airport traffic control services.
4. Until a permanent solution can be implemented, the airport will fund the lease of the mobile tower.

**Equipment and Infrastructure Disposition:** The equipment and infrastructure that is government furnished equipment (GFE) including the camera tower masts, remote tower facility and FCT minimum equipment list (MEL) will remain to support the interim and final solution.

# FNL Air Traffic Control Options Draft

## 1. Remote Tower Implementation at FNL: (Preferred Option)

### a. Advantages:

- 1) Shortest path to permanent air traffic control 12-18 months.
- 2) Most economical path to permanent air traffic control.
- 3) Existing infrastructure and equipment.
- 4) Minimal on airport construction, least disruption to airport.

### b. Disadvantages:

- 1) Risk that successor vendor does not achieve SDA at the Tech Center
- 2) Will require additional funding
- 3) FAA must agree to this approach.
- 4) Will require funding the mobile tower for a period of 12-18 months at \$10,200/month

## 2. Traditional ATCT - Site, Design and Construct: (Alternative Option)

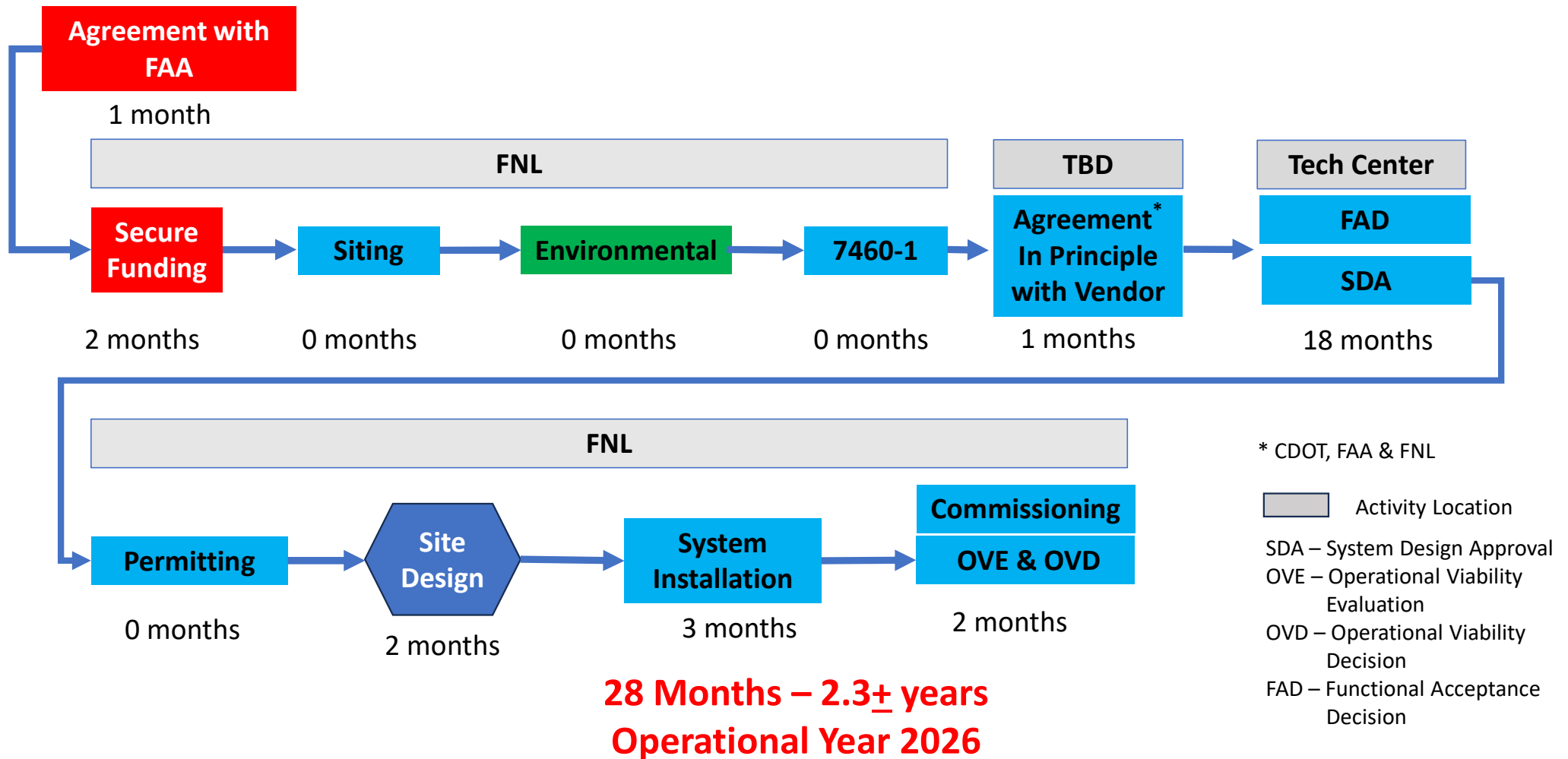
### a. Advantages:

- 1) Well understood process.
- 2) Least risk.

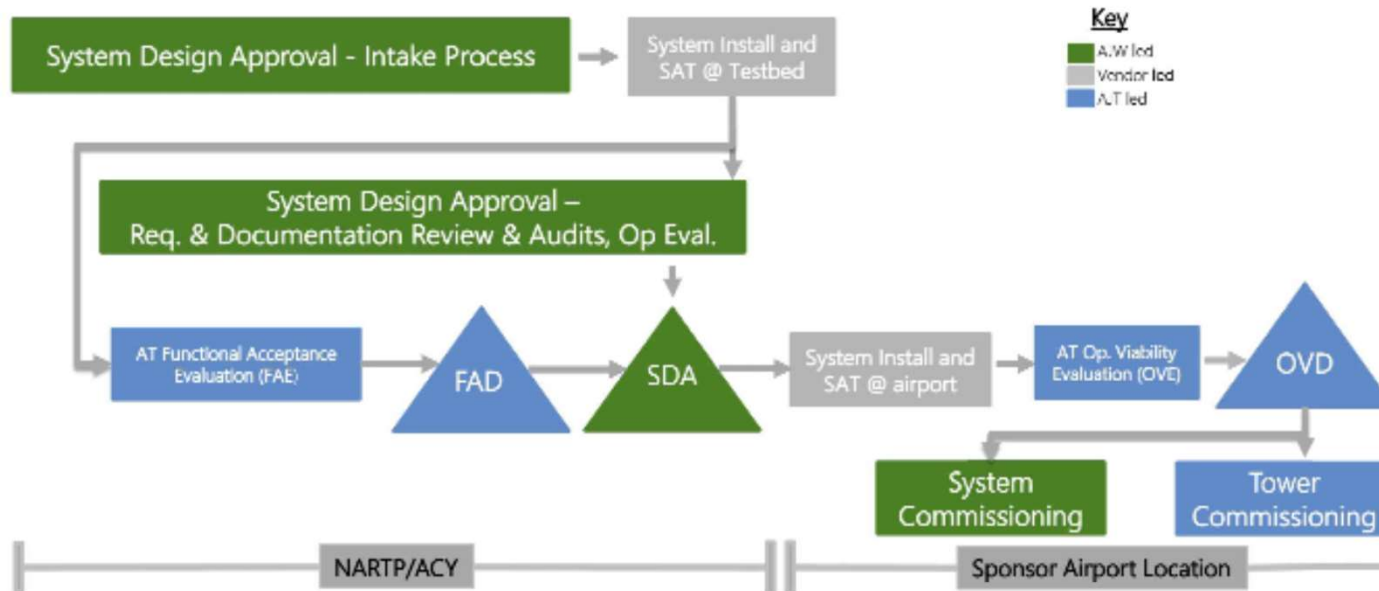
### b. Disadvantages:

- 1) Cost - \$8.5 - \$11 Million.
- 2) FAA must agree to this process
- 3) Must secure funding.
- 4) Longer process 5-7years.
- 5) Will require funding the mobile tower for at least 5 years at \$10,200/month.
- 6) Requires FAA to support FNL inclusion into the FCT program based on the mobile tower in.
- 7) Colorado Division of Aeronautics and the State of Colorado get zero return on their \$8.8 million program investment in 2014.

# Remote Tower Process and Timeline



# SDA & Commissioning Process Overview



For a system to become operational in the NAS, the vendor system must obtain SDA AND successfully complete all Commissioning Activities

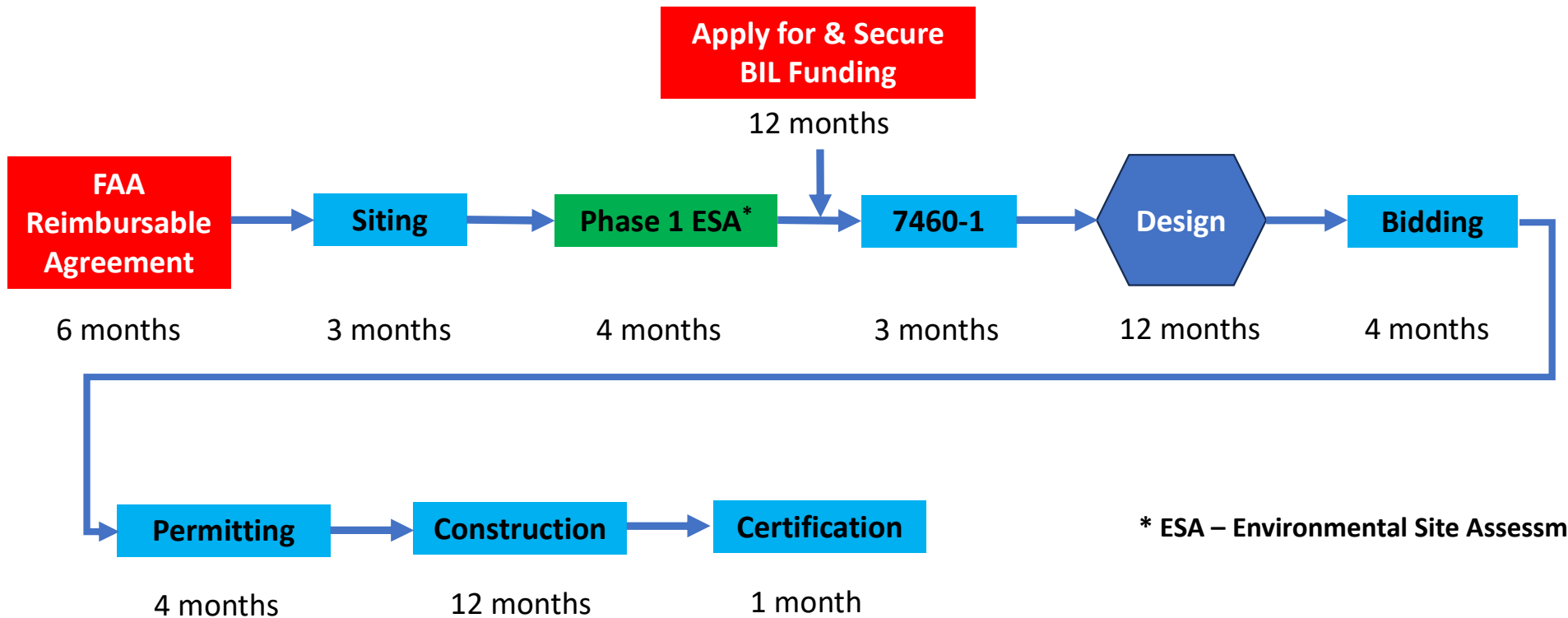
**Notes:**

- SDA requires positive **AT Functional Acceptance Decision (FAD)**; FAD and SDA are achieved at the NARTP/ACY Testbed
- Once SDA is achieved system will be added to QVSL
- Commissioning requires positive **AT Operational Viability Decision (OVD)**; OVD happens during the site acceptance and is site dependent (after SDA and QVSL)



Federal Aviation Administration

# Traditional ATCT Process and Timeline Draft



**61 Months – 5± years  
Operational Year 2029**



# FNL Winter Operations Annual Operator Training

September 2023



- Introduction
- Winter Operations
  - What's New?
  - FAA Requirements
  - Winter Weather Event Planning
  - Pavement Prioritization
  - Equipment and Tactics
  - Runway Condition Code (RwyCC) and Runway Condition Assessment Matrix (RCAM) Communication
  - NOTAM Manager
- ATC Update
- Open to additional questions
- Equipment Familiarization



- Purpose: Provide information needed to maintain safe operations and understand airport procedures during winter conditions.
  - Safety is paramount
- Provide information on Airport Security



- Mobile ATC tower will remain active during the 2023/24 winter 0800-1800 Local
  - TOWER/CTAF 118.400 MHz                                  GROUND 121.650 MHz
- Aircraft De-Ice Frequency
  - JetCenter 130.575 MHz \*ICEMAN\*
  - Type I Safewing MP1 Mixed 50/50 Hot    Type IV Safewing MP IV Cold
  - Deicing location now expanded commercial apron area or stall #3
- FNL Snow Bosses
  - Francis Robbins - Manager                                  Simeon Anderson – Lead OPS Tech
  - Office: 970.962.2853    Office: 970.962.2860
  - Mobile: 970.699.2893    Mobile: 970.531.5590
  - [Francis.Robbins@cityofloveland.org](mailto:Francis.Robbins@cityofloveland.org)                      [Simeon.Anderson@cityofloveland.org](mailto:Simeon.Anderson@cityofloveland.org)

- FNL is classified as a certificated airport under Title 14 of the Code of Federal Regulations (CFR/FAR) Part 139
  - Requires the highest levels of safety and security practices to include a FAA approved Snow and Ice Control Plan.
- Regulations guide our standards and priorities.
  - FNL is required to have sufficient equipment to clear the primary runway and movement area taxiways of 1 inch of snow in ½ hour.
  - Runway 15/33 will be closed during NIL breaking action (or Runway Condition Code of 0) and remain closed until conditions are improved.
  - Runway 6/24 does not receive an RCAM code



# Snow Event Planning



- **Snow Boss**

- Designated prior to the start of the snow event
- Has authority to:
  - Close and/or open any surface (Runway or Taxiway),
  - Assign personnel to duties (Equipment, Location)
  - Call for De-ice chemical
  - Ensures sufficient food and bathroom breaks for staff
  - Primary contact point for pilots
  - Never needs sleep, food, or bathroom breaks

- **Communication**

- Use CTAF only during hours that the tower is not operating (118.4) and Cell Phones

# Pre-Planning Snow Event

- Determine scope of snow event
  - Overnight vs multi day
- Check scheduled flights
  - Based Operators
  - Scheduled with FBO
- Determine initial attack plan
  - Start Time (Immediate vs Overnight Runway Closure)
- Communicate plan with stakeholders
  - Direct contact (phone and email)
  - NOTAMS (In advanced where possible)
- TRACON once on Runway







# Snow Removal Equipment



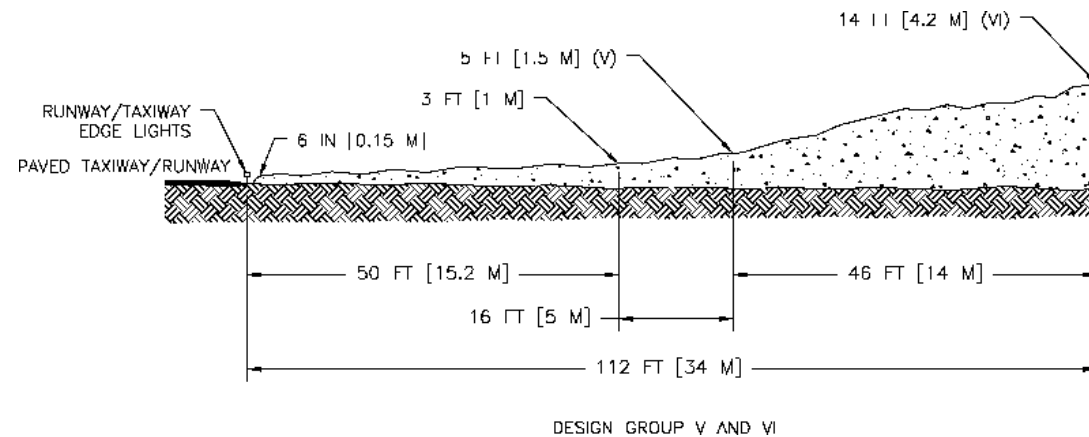


# Airfield Snow Removal Equipment

- Broom Trucks QTY: 2
  - Best removing up to ½ inch snow
- Runway Plows QTY: 3
  - Best removing over ½ inch snow
- High Speed Blower QTY: 1
  - Best removing piled snow
- Articulating Plow QTY: 1
  - Best removing snow on apron and hangars
- De-Ice Machines QTY: 3
  - 1 Granular with Pre-wet and 2 Liquid



## Safe Snow Piles



## Unsafe Snow Piles



# Runway Condition Reporting Changes

- Advisory Circular 150/5200-30D issued 2016
  - **Does Away with reporting Mu values**
  - Runway condition based on contaminant type and depth
  - Evaluate surface with Runway Condition Assessment Matrix (RCAM)
    - Evaluate each third of the runway based on contaminate
    - FNL Touchdown, Midpoint, Rollout
  - NOTAMs will include Runway Condition Codes (RwyCC)
    - RwyCC 6 = Clear Dry Pavement
    - RwyCC Publishable Range 5-1
    - RwyCC 0 = Nil Breaking Action **RUNWAY REQUIRED TO BE CLOSED**
  - TRACON Notification



# R C A M

Assessment Criteria		Downgrade Assessment Criteria		
Runway Condition Description	Code	Mu ( $\mu$ ) <sup>1</sup>	Vehicle Deceleration or Directional Control Observation	Pilot Reported Braking Action
<ul style="list-style-type: none"> <li>Dry</li> </ul>	6	40 or Higher	---	---
<ul style="list-style-type: none"> <li>Frost</li> <li>Wet (Includes Damp and 1/8 inch depth or less of water)</li> </ul> <p><b>1/8 inch (3mm) depth or less of:</b></p> <ul style="list-style-type: none"> <li>Slush</li> <li>Dry Snow</li> <li>Wet Snow</li> </ul>	5		Braking deceleration is normal for the wheel braking effort applied AND directional control is normal.	Good
<p><b>5° F (-15°C) and Colder outside air temperature:</b></p> <ul style="list-style-type: none"> <li>Compacted Snow</li> </ul>	4	39 to 30	Braking deceleration OR directional control is between Good and Medium.	Good to Medium
<ul style="list-style-type: none"> <li>Slippery When Wet (wet runway)</li> <li>Dry Snow or Wet Snow (Any depth) over Compacted Snow</li> </ul> <p><b>Greater than 1/8 inch (3mm) depth of:</b></p> <ul style="list-style-type: none"> <li>Dry Snow</li> <li>Wet Snow</li> </ul> <p><b>Warmer than 5° F (-15°C) outside air temperature:</b></p> <ul style="list-style-type: none"> <li>Compacted Snow</li> </ul>	3		Braking deceleration is noticeably reduced for the wheel braking effort applied OR directional control is noticeably reduced.	Medium
<p><b>Greater than 1/8 (3mm) inch depth of:</b></p> <ul style="list-style-type: none"> <li>Water</li> <li>Slush</li> </ul>	2	29 to 21	Braking deceleration OR directional control is between Medium and Poor.	Medium to Poor
<ul style="list-style-type: none"> <li>Ice<sup>2</sup></li> </ul>	1		Braking deceleration is significantly reduced for the wheel braking effort applied OR directional control is significantly reduced.	Poor
<ul style="list-style-type: none"> <li>Wet Ice<sup>2</sup></li> <li>Slush over Ice</li> <li>Water over Compacted Snow<sup>2</sup></li> <li>Dry Snow or Wet Snow over Ice<sup>2</sup></li> </ul>	0	20 or Lower	Braking deceleration is minimal to non-existent for the wheel braking effort applied OR directional control is uncertain.	Nil



NORTHERN COLORADO  
REGIONAL AIRPORT

# Additional Questions?



NORTHERN COLORADO  
REGIONAL AIRPORT



# NORTHERN COLORADO REGIONAL AIRPORT

4900 Earhart Rd • Loveland, Colorado 80538

(970) 962-2850 • FAX (970) 962-2855 • TDD (970) 962-2620

**ITEM NUMBER:** 4

**MEETING DATE:** November 16, 2023

**PREPARED BY:** Aaron Ehle, Airport Planning & Development Specialist

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## **TITLE**

Utility Easement for New Terminal Facility

## **RECOMMENDED AIRPORT COMMISSION ACTION**

Provide recommendation to Fort Collins City Council to approve easement

## **BUDGET IMPACT**

Neutral

## **SUMMARY**

Northern Colorado Regional Airport is jointly owned and operated by the Cities of Fort Collins and Loveland. In 2015, the Cities entered into an intergovernmental agreement (IGA) that formed the Northern Colorado Regional Airport Commission, which is delegated certain powers and authority to operate and maintain the Airport. However, only the City Councils have the authority to grant easements as permanent property rights at the Airport.

In connection with the planned Airport Terminal Project, the City of Loveland has requested a permanent non-exclusive easement for electrical infrastructure.

## **ATTACHMENT**

Utility Easement

## GRANT OF UTILITY EASEMENT

THIS GRANT OF UTILITY EASEMENT is made and entered into by and between the City of Loveland, Colorado, a municipal corporation, with an address of 500 E Third Street, Loveland, CO 80537, and the CITY OF FORT COLLINS, COLORADO, a municipal corporation (“Grantors”), with an address of 300 Laporte Ave, Fort Collins, CO 80521, and the CITY OF LOVELAND, COLORADO, a Colorado home rule municipal corporation (“City”), with an address of 500 E Third Street, Loveland, Colorado 80537. This Grant of Utility Easement is effective as of the date of the City’s Official Acceptance in the City’s signature block below.

### WITNESSETH:

FOR GOOD AND VALUABLE CONSIDERATION, the adequacy and receipt of which is hereby acknowledged, Grantors have this day bargained, sold, conveyed, transferred, and delivered unto the City, its successors, and assigns, in perpetuity, a non-exclusive easement in, over, under, through, and across the real property described below for purposes of constructing, repairing, replacing, relocating, inspecting, operating, maintaining, and accessing City-owned utility systems across, through, upon, and under the real property described on the attached Exhibits A and B (the “Easement Area”); provided, however, that the City shall restore the ground surface to its prior condition after any disturbance of such surface. The term “City-owned utility systems,” means above and below ground wires, lines, cables, ducts, conduits, pipes, pumps, pedestals, risers, poles, vaults, manholes, fire hydrants, pull boxes, and any other equipment, appurtenances, and structures associated with electric systems that are owned and operated by the City.

Grantors are prohibited from constructing or placing on any part of the Easement Area without prior written approval from the City any fence or gate, building, above or below ground utility systems or appurtenances not owned or maintained by the City, or any other permanent or substantial structure. Grantors are prohibited from making or permitting any use of the Easement Area that would impair, impede, or interfere with the City’s access to or along the easement, or the City’s full free use and exercise of the easement. The City shall be permitted to immediately remove without liability for damages any obstruction prohibited by this easement that interferes with the City’s access to the City-owned utility systems or impairs the City’s full free use and exercise of the easement.

This easement is and shall be subordinate to the provision of existing and future agreements between the Grantors and the United States relative to the operation or maintenance of the Northern Colorado Regional Airport (the “Airport”), the execution of which has been or may be required as a condition precedent to the obtaining or expenditure of federal funds for the benefit of the Airport.

The Grantors or their successors and assigns owns the trees and other vegetation on the Easement Area, and the Grantors acknowledge, for themselves and for all successors and assigns, that this easement provides the City with the authority to cut and remove trees and other vegetation that encroaches upon the Easement Area if, in the sole discretion of the City, such trees or vegetation interfere with the City’s use and enjoyment of this easement.

The Easement Area hereby granted, situated in Larimer County, Colorado, is described as follows:

- Exhibit A – Easement Description
- Exhibit B – Easement Drawing

TO HAVE AND TO HOLD said easement unto the City, its successors, and assigns forever. This perpetual easement and the rights, benefits, and obligations created hereby constitute a burden upon the estate of Grantors in the underlying lands and shall run with the land and be binding upon Grantors and their successors, personal representatives, assigns, and heirs. Grantors doe hereby covenant with the City that it is lawfully seized and possessed of the real property above described, that it has a good and lawful right to convey the easement herein granted, that the easement is free and clear of all liens and encumbrances, and that it will forever warrant and defend the title thereto against lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, Grantor has executed this Grant of Utility Easement on the date below.

**GRANTOR:**

By: \_\_\_\_\_

Date: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

State of \_\_\_\_\_ )  
 ) ss  
 County of \_\_\_\_\_ )

Acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_, by (Name) \_\_\_\_\_ as (Title) \_\_\_\_\_.

Witness my hand and seal. My commission expires: \_\_\_\_\_.

(S E A L) \_\_\_\_\_  
Notary Public

**OFFICIAL ACCEPTANCE BY THE CITY OF LOVELAND**

APPROVED AS TO FORM:

\_\_\_\_\_



Stephen C. Adams, City Manager

Assistant City Attorney

ATTEST:

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Date

**DESCRIPTION**

A tract of land being a portion of Tract "B" of Barnstorm Second Addition, recorded August 12, 1986, as Reception No. 19860044345 of the Records of Larimer County and situate within Sections Twenty-eight (28) and Thirty-three (33), Township Seven North (T.6N.), Range Sixty-eight West (R.67W.) of the Sixth Principal Meridian (6<sup>th</sup> P.M.), City of Loveland, County of Larimer, State of Colorado, being more particularly described as follows;

Considering the easterly line of the Southeast Quarter of the said Section 28 as bearing North 00° 07' 30" East, an assumed bearing, and with all bearings contained herein relative thereto:

**COMMENCING** at the Southeast Corner of the said Section 28, THENCE along said easterly line, North 00° 07' 30" East for a distance of 40.00 feet to the northerly line of the right-of-way of Earhart Road; THENCE continuing along said northerly right-of-way line South 86° 23' 26" West for a distance of 501.01 feet; THENCE North 89° 01' 49" West for a distance of 864.74 feet to the beginning of a non-tangential curve; said curve being concave to the south, with a Delta of 118° 34' 06", having a radius of 50.00 feet, a length of 103.47 feet and a long chord bearing South 84° 48' 58" West for a distance of 85.97 feet to the **POINT OF BEGINNING**;

THENCE continuing said curve, being concave to the southeast, with a Delta of 11° 42' 44", having a radius of 50.00 feet, a length of 10.22 feet and a long chord bearing South 19° 40' 33" West for a distance of 10.20 feet;

THENCE departing said right-of way North 58° 52' 32" West for a distance of 45.90 feet;

THENCE North 54° 29' 20" West for a distance of 41.93 feet;

THENCE North 72° 52' 32" West for a distance of 36.35 feet;

THENCE North 82° 18' 50" West for a distance of 36.39 feet;

THENCE North 78° 52' 32" West for a distance of 29.97 feet;

THENCE North 71° 34' 33" West for a distance of 66.11 feet;

THENCE South 31° 34' 41" West for a distance of 12.79 feet;

THENCE South 70° 07' 28" West for a distance of 46.59 feet;

THENCE South 19° 52' 32" East for a distance of 2.50 feet;

THENCE South 70° 07' 28" West for a distance of 15.00 feet;

THENCE North 19° 52' 32" West for a distance of 15.00 feet;

THENCE North 70° 07' 28" East for a distance of 15.00 feet;

THENCE South 19° 52' 32" East for a distance of 2.50 feet;

THENCE North 70° 07' 28" East for a distance of 43.10 feet;

THENCE North 31° 34' 41" East for a distance of 7.92 feet;

THENCE North 19° 52' 32" West for a distance of 10.59 feet;

THENCE North 70° 07' 28" East for a distance of 2.59 feet;

THENCE North 19° 52' 32" West for a distance of 69.71 feet;

THENCE South 70° 07' 28" West for a distance of 2.50 feet;

THENCE North 19° 52' 32" West for a distance of 16.00 feet;

THENCE North 70° 07' 28" East for a distance of 15.00 feet;

THENCE South 19° 52' 32" East for a distance of 16.00 feet;

THENCE South 70° 07' 28" West for a distance of 2.50 feet;

THENCE South 19° 52' 32" East for a distance of 69.71 feet;

THENCE North 70° 07' 28" East for a distance of 2.41 feet;

THENCE South 19° 52' 32" East for a distance of 10.89 feet;

THENCE South 71° 34' 33" East for a distance of 63.56 feet;

THENCE South 78° 52' 32" East for a distance of 29.03 feet;

THENCE South 82° 18' 50" East for a distance of 36.92 feet;

THENCE South 72° 52' 32" East for a distance of 38.79 feet;

THENCE South 54° 29' 20" East for a distance of 43.16 feet;

THENCE South 58° 52' 32" East for a distance of 43.49 feet to the **POINT OF BEGINNING**.

The above-described tract of land contains 4,483 square feet or 0.10 acres, more or less (±), is meant to surround the as-constructed location of the utility, and may be subject to easements and rights-of-way now on record or existing.

Exhibit attached hereto and made a part hereof.

**NORTHERN ENGINEERING**

301 North Howes Street, Suite 100  
Fort Collins, Colorado 80521  
(970) 221-4158

September 11, 2023

TJK

S:\Survey Jobs\297-012\Dwg\Descriptions\297-012 Easement Description.docx

# EXHIBIT

A TRACT OF LAND BEING A PORTION OF TRACT "B" OF BARNSTORM SECOND ADDITION, BEING SITUATE WITHIN SECTIONS 28 & 33, TOWNSHIP 6 NORTH, RANGE 68 WEST OF THE 6th P.M., CITY OF LOVELAND, COUNTY OF LARIMER, STATE OF COLORADO

NOTE: THIS EXHIBIT IS NOT INTENDED TO BE A MONUMENTED LAND SURVEY. ITS SOLE PURPOSE IS AS A GRAPHIC REPRESENTATION TO AID IN THE VISUALIZATION OF THE WRITTEN PROPERTY DESCRIPTION WHICH IT ACCOMPANIES. THE WRITTEN PROPERTY DESCRIPTION SUPERCEDES THE EXHIBIT DRAWING.

LINE TABLE		
LINE	BEARING	LENGTH
L1	N58° 52' 32"W	45.90'
L2	N54° 29' 20"W	41.93'
L3	N72° 52' 32"W	36.35'
L4	N82° 18' 50"W	36.39'
L5	N78° 52' 32"W	29.97'
L6	N71° 34' 33"W	66.11'
L7	S31° 34' 41"W	12.79'
L8	S70° 07' 28"W	46.59'
L9	S19° 52' 32"E	2.50'
L10	S70° 07' 28"W	15.00'
L11	N19° 52' 32"W	15.00'

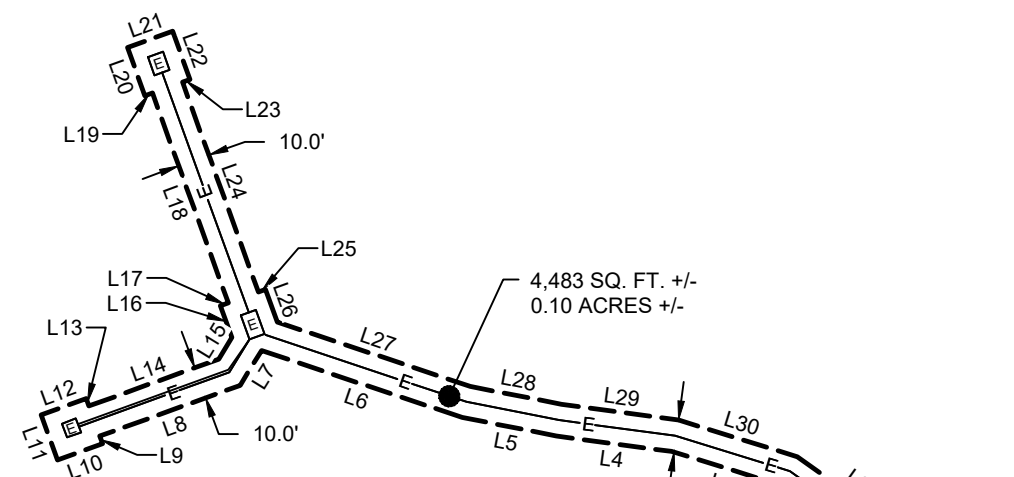
LINE TABLE		
LINE	BEARING	LENGTH
L12	N70° 07' 28"E	15.00'
L13	S19° 52' 32"E	2.50'
L14	N70° 07' 28"E	43.10'
L15	N31° 34' 41"E	7.92'
L16	N19° 52' 32"W	10.59'
L17	N70° 07' 28"E	2.59'
L18	N19° 52' 32"W	69.71'
L19	S70° 07' 28"W	2.50'
L20	N19° 52' 32"W	16.00'
L21	N70° 07' 28"E	15.00'
L22	S19° 52' 32"E	16.00'

LINE TABLE		
LINE	BEARING	LENGTH
L23	S70° 07' 28"W	2.50'
L24	S19° 52' 32"E	69.71'
L25	N70° 07' 28"E	2.41'
L26	S19° 52' 32"E	10.89'
L27	S71° 34' 33"E	63.56'
L28	S78° 52' 32"E	29.03'
L29	S82° 18' 50"E	36.92'
L30	S72° 52' 32"E	38.79'
L31	S54° 29' 20"E	43.16'
L32	S58° 52' 32"E	43.49'

SYMBOL LEGEND	
	SECTION CORNER
	ELECTRIC EQUIPMENT

LINE LEGEND	
	EASEMENT LINE
	RIGHT OF WAY
	PROPOSED ELECTRIC CONDUIT
	SECTION LINE

CURVE TABLE					
CURVE	DELTA	RADIUS	LENGTH	BEARING	CHORD
C1	118°34'06"	50.00'	103.47'	S84°48'58"W	85.97'
C2	11°42'44"	50.00'	10.22'	S19°40'33"W	10.20'

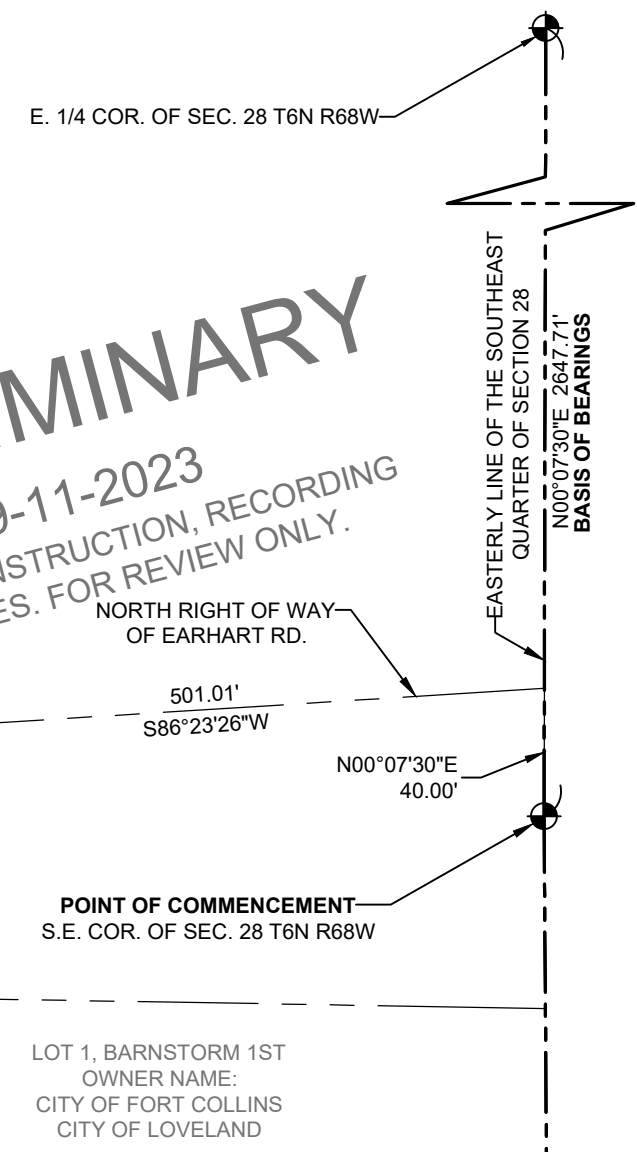


TRACT "B"  
BARNSTORM 2ND ADDITION  
OWNER NAME:  
CITY OF FORT COLLINS  
CITY OF LOVELAND

TRACT "B"  
BARNSTORM 2ND ADDITION  
OWNER NAME:  
CITY OF FORT COLLINS  
CITY OF LOVELAND

**NE** | **NORTHERN ENGINEERING**  
SURVEY | MUNICIPAL | LAND DEVELOPMENT  
FORT COLLINS | GREELEY 970.221.4198 NORTHERNENGINEERING.COM

**PRELIMINARY**  
09-11-2023  
NOT FOR CONSTRUCTION, RECORDING PURPOSES. FOR REVIEW ONLY.



LOT 1, BARNSTORM 1ST  
OWNER NAME:  
CITY OF FORT COLLINS  
CITY OF LOVELAND

60 0 60 Feet  
( IN U.S. SURVEY FEET )  
1 inch = 60 ft.  
S:\SURVEY JOBS\297-012\DWG\EXHIBITS\297-012 EASEMENT EXHIBIT.DWG



# NORTHERN COLORADO REGIONAL AIRPORT

4900 Earhart Rd • Loveland, Colorado 80538

(970) 962-2850 • FAX (970) 962-2855 • TDD (970) 962-2620

**ITEM NUMBER:** 5

**MEETING DATE:** November 16, 2023

**PREPARED BY:** Francis Robbins, Operations & Maintenance Manager

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## **TITLE**

Taxiway B&D and Taxilane Rehabilitation Design and Environmental

## **RECOMMENDED AIRPORT COMMISSION ACTION**

Make a motion to recommend the Loveland City Manager execute a contract with Dibble Engineering for Design and Bid Phase Services for the Taxiway B&D and Taxilane Rehabilitation

## **BUDGET IMPACT**

Negative, the contract amount is \$234,040.38.  
\$155,473 is eligible for grant reimbursement.

## **SUMMARY**

This is an administrative item requesting for the Commission to recommend that the Loveland City Manager approve a contract with Dibble Engineering for professional services totaling \$234,040.38. The Airport currently has an on-call contract with Dibble Engineering as its consultant on record through 2024. The contract was awarded after a thorough qualification-based selection process that included staff from both Cities serving on the selection committee.

This project is important for general aviation aircraft safety and pavement longevity. Construction is scheduled for 2024. The project is included in the adopted Airport Master Plan and Capital Improvement Plan. The rehabilitation is planned to include an asphalt mill and overlay with localized reconstruction.

The Federal Aviation Administration (FAA) will provide the Airport with a grant funding the eligible portion of the project design and construction in 2024. The project is organized in two schedules to separate FAA eligible and non-eligible areas of work. The Taxiway B and D area is defined as Schedule I and is eligible for Federal grant reimbursement to the amount listed in the table below. The General Aviation (GA) Taxilanes rehabilitation is not eligible for federal or state grant programs and will be funded locally. The rehabilitation will include asphalt milling and resurfacing with localized areas of reconstruction where pavements are at are near failure point.

Constructing both phases in a single project bid leverages economies of scale and reduces downtime to affected users.


<b>Scope</b>	<b>FAA Grant</b>	<b>State Grant</b>	<b>Local</b>	<b>Total</b>
Taxiway B And D	\$147,291	\$8,182	\$8,182	\$163,656
GA Taxilanes	\$0	\$0	\$70,354	\$70,354
<b>Total</b>	<b>\$147,291</b>	<b>\$8,182</b>	<b>\$78,536</b>	<b>\$234,040</b>

\*Amounts rounded to nearest dollar

**ATTACHMENT**

Project Presentation Slides

Airport Services Contract with Dibble




NORTHERN COLORADO  
REGIONAL AIRPORT

# Taxiway & Taxilane Rehabilitation

Presentation to the Northern Colorado Regional Airport Commission  
November 16, 2023.

1



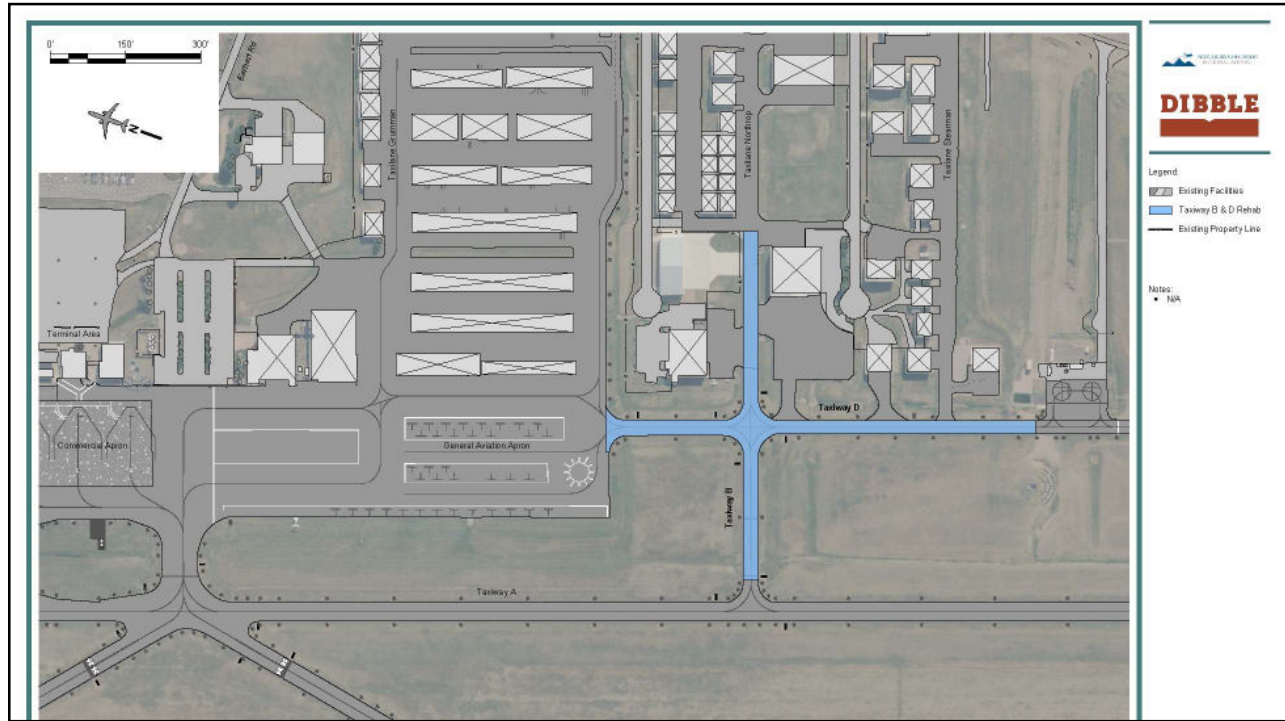
NORTHERN COLORADO  
REGIONAL AIRPORT

## Background

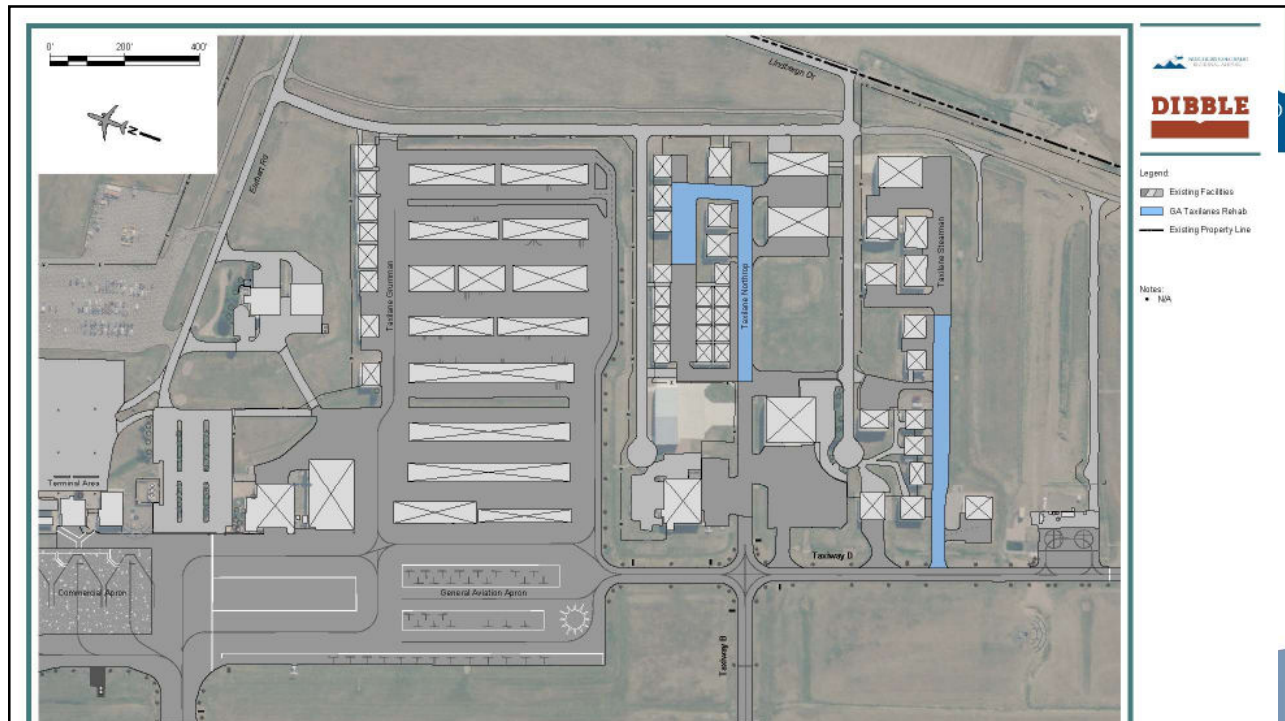
- Rehabilitation of these pavements is identified in the Airport Master Plan
- It is a project identified in the Capital Improvement Plan adopted on October 19, 2023.
- The pavements have been regularly maintained with crack seal and seal coat to increase longevity.
- Current pavement condition is aging beyond the help of crack seal/seal coat effectiveness and rehabilitation is next maintenance step.
- FAA Kick off meeting held October 25<sup>th</sup>

2





3



4

# Timeline



- Contracting November 2023
- Environmental Cat Ex Determination December 2023
- Grant Application and 30% design January 2024.
- Final bid documents February 2024
- Bid Construction Award March 2024
- Construction Second Quarter 2024

5

# Financial Impact



## Design and Bid Phase (Quoted)

Scope	FAA Grant	State Grant	Local	Total
Taxiway B And D	\$147,291	\$8,182	\$8,182	\$163,656
GA Taxilanes	\$0	\$0	\$70,354	\$70,354
<b>Total</b>	<b>\$147,291</b>	<b>\$8,182</b>	<b>\$78,536</b>	<b>\$234,040</b>

## Total Project thru Construction (estimated)

Scope	FAA Grant	State Grant	Local	Total
Taxiway B And D	\$925,000	\$51,288	\$51,288	\$1,027,776
GA Taxilanes	\$0	\$0	\$600,000	\$600,000
<b>Total</b>	<b>\$925,000</b>	<b>\$51,288</b>	<b>\$651,288</b>	<b>\$1,627,776</b>

6

## Staff Recommendation



- Make a motion to recommend the Loveland City Manager execute a contract with Dibble Engineering for Design and Bid Phase Services for the taxiway and taxilane rehabilitation project.

## AIRPORT SERVICES CONTRACT

This contract ("Contract") is entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_, by and between the City of Loveland and the City of Fort Collins (the "Cities"), acting by and through the **Northern Colorado Regional Airport Commission** ("NCRAC"), and **Dibble Engineering** ("Contractor").

Whereas, the Cities and the Contractor, referred to herein jointly as the "parties," desire to contract with one another to complete the following project: **Taxiway B & D Rehabilitation**.

Now, therefore, in consideration of the mutual covenants and agreements contained herein, the parties agree as follows:

1. Services. The Contractor shall perform the services set forth in Exhibit A, attached hereto and incorporated herein by reference ("Services"). The Contractor represents that it has the authority, capacity, experience, and expertise to perform the Services in compliance with the provisions of this Contract and all applicable laws. The Contractor shall be solely responsible for performance of all duties hereunder. The Cities reserve the right to remove any of the Services and costs associated with such Services from Exhibit A upon written notice to the Contractor. In the event of any conflict between this Contract and Exhibit A, the provisions of this Contract shall prevail.

2. Price. The City of Loveland shall pay the Contractor a sum not to exceed **\$234,040.38**. The City of Loveland shall make payment within thirty (30) days of receipt and approval of monthly invoices, which shall identify the specific Services performed for which payment is requested. Upon final payment, all work completed by the Contractor, including but not limited to all designs, plans, reports, specifications, drawings, data, analysis, and other services rendered by the Contractor, shall become the sole property of the Cities.

3. Term. This Contract shall be effective from **November 16, 2023 through November 30, 2024**. This Contract may be extended or renewed by written agreement of the parties.

4. Appropriation. To the extent this Contract constitutes a multiple fiscal year debt or financial obligation of either of the Cities, it shall be subject to annual appropriations pursuant to the Municipal Charters of each of the Cities and Article X, Section 20 of the Colorado Constitution. Neither of the Cities shall have any obligation to continue this Contract in any fiscal year in which no such appropriation is made and a termination in such a fiscal year shall not be considered default.

5. Independent Contractor. The parties agree that the Contractor is an independent contractor and is not an employee of either of the Cities. **The Contractor is not entitled to workers' compensation benefits from the Cities. The Contractor is obligated to pay federal and state income tax on any money earned pursuant to this Contract.**

6. Insurance Requirements.

a. Policies. The Contractor and its subcontractors, if any, shall procure and keep in force during the duration of this Contract the following insurance policies, and shall provide the Cities with a certificate of insurance evidencing the same upon execution of this Contract:

(i) Comprehensive general liability insurance insuring the Contractor and naming the Cities as additional insureds with minimum combined single limits of \$1,000,000 each occurrence and \$1,000,000 aggregate. The policy shall be applicable to all premises and operations. The policy shall include coverage for bodily injury, broad form property damage (including completed operations), personal injury (including coverage for contractual and employee acts), blanket contractual, independent contractors, products, and completed operations. The policy shall contain a severability of interests provision.

(ii) Comprehensive automobile liability insurance insuring the Contractor and naming the Cities as additional insureds against any liability for personal injury, bodily injury, or death arising out of the use of motor vehicles and covering operations on or off the site of all motor vehicles controlled by the Contractor which are used in connection with this Contract, whether the motor vehicles are owned, non-owned, or hired, with a combined single limit of at least \$1,000,000.

(iii) Professional liability insurance insuring the Contractor against any professional liability with a limit of at least \$1,000,000 per claim and annual aggregate. *(Note: this policy shall only be required if the Contractor is an architect, engineer, surveyor, appraiser, physician, attorney, accountant, or other licensed professional.)*

(iv) Workers' compensation insurance and all other insurance required by any applicable law. *(Note: if under Colorado law the Contractor is not required to carry workers' compensation insurance, the Contractor shall execute a Certificate of Exemption and Waiver, attached hereto as Exhibit B and incorporated herein by reference.)*

Page 2

*Form Approved by Loveland City Attorney 7/7/2022[Laurie Wilson, LW, 7/7/22]  
Form Approved by Fort Collins City Attorney 7/7/2022[Judy Schmidt, JS, 7/7/22]  
For use in accordance with Section 4.A of Amended and Restated Intergovernmental Agreement for the Joint  
Operation of the Fort Collins-Loveland Airport dated January 22, 2015 (the "IGA"), as amended by First  
Amendment dated June 7, 2016 ,*



b. Requirements. Required insurance policies shall be with companies qualified to do business in Colorado with a general policyholder's financial rating acceptable to the Cities. Said policies shall not be cancelable or subject to reduction in coverage limits or other modification except after thirty (30) days prior written notice to the Cities. The Contractor shall identify whether the type of coverage is "occurrence" or "claims made." If the type of coverage is "claims made," which at renewal the Contractor changes to "occurrence," the Contractor shall carry a six-month tail. Comprehensive general and automobile policies shall be for the mutual and joint benefit and protection of the Contractor and the Cities. Such policies shall provide that the Cities, although named as additional insureds, shall nevertheless be entitled to recover under said policies for any loss occasioned to it, its officers, employees, and agents by reason of negligence of the Contractor, its officers, employees, agents, subcontractors, or business invitees. Such policies shall be written as primary policies not contributing to and not in excess of coverage of the Cities.

7. Data Security. Pursuant to the Colorado Protections for Consumer Data Privacy Act, C.R.S. §24-73-101, et seq., Contractor will destroy all paper and electronic documents containing personal identifying information within six (6) months of termination of this agreement, unless otherwise required under the law. If other laws are applicable, such information will be securely destroyed to protect personal identifying information. Contractor shall implement and maintain security procedures that are consistent with generally accepted industry standards to protect personal identifying information and that are designed to protect the information from unauthorized access, use, modification, disclosure, or destruction. If Contractor discovers or is informed of a security breach, Contractor will give the Cities notice in the most expedient time and without unreasonable delay, no later than fifteen (15) calendar days after it is determined a security breach occurred. Contractor shall cooperate with the Cities in the event of a security breach that compromises computerized data, if misuse of personal information about a Colorado resident occurred or is likely to occur. Cooperation includes sharing with the Cities information relevant to the security breach. Contractors shall be liable for any damages caused by such security breach.

8. Indemnification. The Contractor agrees to indemnify and hold harmless the Cities, their officers, employees, and agents, including members of the NCRAC, as applicable, from and against all liability, claims, and demands on account of any injury, loss, or damage arising out of or connected with the Services, if such injury, loss, or damage, or any portion thereof, is caused by, or claimed to be caused by, the act, omission, or other fault of the Contractor or any subcontractor of the Contractor, or any officer, employee, or agent of the Contractor or any subcontractor, or any other person for whom the Contractor is responsible. The Contractor shall investigate, handle, respond to, and defend against any such liability, claims, and demands, and shall bear all other costs and expenses related thereto, including court costs and attorneys' fees. If the Contractor is providing architectural, engineering, design, or surveying services, the obligation

to indemnify and pay costs, expenses, and attorneys' fees, is limited to the amount represented by the degree or percentage of negligence or fault attributable to the Contractor, or the Contractor's agents, representatives, employees, servants, subcontractors, or suppliers as determined by adjudication, alternative dispute resolution, or otherwise resolved by mutual agreement between the Contractor and the Cities. The Contractor shall notify Cities and provide a copy of any and all written claims or demands within two (2) business days of receipt. The Contractor's indemnification obligation shall not be construed to extend to any injury, loss, or damage to the extent caused by the act, omission, or other fault of the Cities. This paragraph shall survive the termination or expiration of this Contract.

9. Governmental Immunity Act. No term or condition of this Contract shall be construed or interpreted as a waiver, express or implied, of any of the notices, requirements, immunities, rights, benefits, protections, limitations of liability, and other provisions of the Colorado Governmental Immunity Act, C.R.S. § 24-10-101 *et seq.* and under any other applicable law.

10. Colorado Open Records Act. The parties understand that all the material provided or produced under this Contract, including items marked Proprietary or Confidential, may be subject to the Colorado Open Records Act, section 24-72-201 *et seq.* of the Colorado Revised Statutes. If the Contractor objects to the disclosure of any information in its statement of work, Exhibit A, or other document provided to the Cities under this Contract, the Contractor must mark it clearly as confidential. The Cities are required to make a determination under the Colorado Open Records Act, and may only withhold documents that are confidential under the law. If the Cities release records in compliance with the Colorado Open Records Act, the Contractor waives any claims for liability or damages. Contractor further agrees to defend, indemnify, save and hold harmless the Cities, its officers, agents and employees from any claim, damages, expense, loss, or costs arising out of the Contractor's intervention to protect and assert its claim of privilege against disclosure under this Paragraph, including but not limited to prompt reimbursement to the Cities of all reasonable attorney's fees, costs, and damages that the Cities may incur directly or may be ordered to pay by such court.

11. Prohibited Terms. Any term included in Exhibit A, or any other exhibit, that requires the Cities to indemnify or hold the Contractor harmless; requires the Cities to agree to binding arbitration; limits the Contractor's liability for damages caused by the Contractor; determines choice of law, conflicts of law, or venue and forum-selection, or defense or control of litigation or settlement; requires the Cities to pay attorneys' fees or costs; requires the Cities to name the Contractor as an additional insured; requires the Cities to agree to confidentiality; or that conflicts with this provision in any way shall be void *ab initio*. Designations of venue, choice of law, enforcement actions, and similar provisions shall not be construed as a waiver of sovereign immunity. The parties agree that any ambiguity in this Contract shall not be strictly construed,

either against or for either party, except that any ambiguity as to sovereign immunity shall be construed in favor of the Cities.

12. Online Agreement Disclaimer and Additional Terms. Notwithstanding anything to the contrary herein, the Cities shall not be subject to any provision included in any terms, conditions, or agreements appearing on the Contractor's website or any provision incorporated into any click-through or online agreements related to the Services. Any terms the Contractor wishes to include must be directly included in Exhibit A or another exhibit to this Contract, not referenced as a website, separate set of terms, included as a clicked-through agreement, or any similar set of additional terms not attached hereto.

13. Compliance with Applicable Laws. The Contractor shall comply with all applicable federal, state, and local laws, including the ordinances, resolutions, rules, and regulations of the Cities, as applicable. The Contractor shall solely be responsible for payment of all applicable taxes and for obtaining and keeping in force all applicable permits and approvals.

14. Termination.

a. Without Cause. NCRAC, acting on behalf of the Cities, the Cities, acting jointly on their own behalves, or the Contractor may terminate this Contract without cause upon fifteen (15) days prior written notice to the other. The Cities shall be liable to pay the Contractor for Services satisfactorily performed as of the effective date of termination, but shall not be liable to the Contractor for anticipated profits.

b. For Default. Each and every term and condition hereof shall be deemed to be a material element of this Contract. In the event either party fails to perform according to the terms of this Contract, such party may be declared in default. If the defaulting party does not cure said breach within ten (10) days of written notice thereof, the non-defaulting party may terminate this Contract immediately upon written notice of termination to the other. In the event of such termination, Cities shall be liable to pay the Contractor for Services satisfactorily performed as of the effective date of termination, but the Cities shall not be liable to Contractor for anticipated profits or consequential damages; provided, however, that the Contractor shall not be relieved of liability to the Cities for any damages sustained by the Cities by virtue of any default under this Contract, and NCRAC, acting on behalf of the Cities, or the Cities may withhold payment to the Contractor for the purposes of setoff until such time as the exact amount of damages is determined.

15. Notices. Written notices shall be directed as follows and shall be deemed received when hand-delivered or emailed, or three (3) days after being sent by certified mail, return receipt requested:

To the City of Loveland:  
David Ruppel  
City of Loveland  
4900 Earhart Road  
Loveland, CO 80538  
Email:  
David.Ruppel@cityofloveland.org

To the Contractor:  
Kenneth Snyder  
Dibble Engineering  
2696 S Colorado Blvd, Suite 330  
Denver, CO 80222  
Email: ken.snyder@dibblecorp.com

To the City of Fort Collins:  
City Attorney  
PO Box 580  
Fort Collins, CO 80522

16. Special Provisions. This contract is awarded to the Engineer of Record as established by Airport Engineering and Architectural Services agreement entered into January 23<sup>rd</sup>, 2020. In the event of any conflict between this Contract and the contract dated January 23<sup>rd</sup>, 2020, the provisions of this Contract shall prevail.

17. Time of the Essence. Time is of the essence in performance of the Services and is a significant and material term of this Contract.

18. Miscellaneous. This Contract contains the entire agreement of the parties relating to the subject matter hereof and, except as provided herein, may not be modified or amended except by written agreement of the parties. In the event a court of competent jurisdiction holds any provision of this Contract invalid or unenforceable, such holding shall not invalidate or render unenforceable any other provision of this Contract. The Contractor shall not assign this Contract without the Cities' prior written consent. This Contract shall be governed by the laws of the State of Colorado, and venue shall be in the County of Larimer, State of Colorado.

19. Personal Services and Non-Assignment. It is understood that the Cities enter into this Contract based on the special abilities of the Contractor and that this Contract shall be considered as an agreement for personal services. Accordingly, the Contractor shall neither assign any responsibilities nor delegate any duties arising under this Contract without the prior written consent of the Cities.

20. Subcontractors. Contractor may not subcontract any of the Services without the prior written consent of the Cities, which shall not be unreasonably withheld. If any of the Services are subcontracted hereunder (with the consent of the Cities), then the following provisions shall apply: (a) the subcontractor must be a reputable, qualified firm with an established record of successful performance in its respective trade performing identical or substantially similar work, (b) the subcontractor will be required to comply with all applicable terms of this Contract, (c) the

subcontract will not create any contractual relationship between any such subcontractor and the Cities, nor will it obligate the Cities to pay or see to the payment of any subcontractor, and (d) the work of the subcontractor will be subject to inspection by the Cities to the same extent as the work of the Contractor.

21. Acceptance Not Waiver. The approval by the Cities of any documents, reports, and incidental work or materials furnished hereunder shall not in any way relieve the Contractor of responsibility for the quality or technical accuracy of the Services. The Cities approval or acceptance of, or payment for, any of the Services shall not be construed to operate as a waiver of any rights or benefits provided to the Cities under this Contract.

22. Representative. The Cities designate the Airport Manager as its project representative who shall make, within the scope of his or her authority, all necessary and proper decisions with reference to the Services. All requests for contract interpretations, change orders, and other clarification or instruction shall be directed to the representative. The Cities may change its designated representative by written notice to the Contractor.

23. Legal Authority. The person signing and executing this Contract on behalf of the Contractor hereby warrants and guarantees that they have been fully authorized by the Contractor to execute this Contract on the Contractor's behalf and to validly and legally bind the Contractor to all terms, performances, and provisions set forth herein.

24. Signatures. This Contract may be executed in two or more counterparts, including by facsimile or electronic mail, each of which shall be deemed an original and all of which shall constitute one and the same Contract. By affixing an image of one's own signature to this Contract in an electronic format, the person is signing the Contract as if it were an original, wet ink signature.

Signed by the parties on the date written above.

**Contractor**

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_



**Northern Colorado Regional Airport Commission  
acting on behalf of the City of Loveland, Colorado  
and the City of Fort Collins, Colorado**

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

ATTEST:

\_\_\_\_\_  
City Clerk

APPROVED AS TO FORM:

\_\_\_\_\_  
Assistant City Attorney

**The City of Loveland and City of Fort Collins are committed to providing an equal opportunity for services, programs and activities and does not discriminate on the basis of disability, race, age, color, national origin, religion, sexual orientation or gender. For more information on non-discrimination or for translation assistance, please contact the City of Loveland's Title VI Coordinator at [TitleSix@cityofloveland.org](mailto:TitleSix@cityofloveland.org) or 970-962-2372. The City of Loveland will make reasonable accommodations for citizens in accordance with the Americans with Disabilities Act (ADA). For more information on ADA or accommodations, please contact the City of Loveland's ADA Coordinator at [jason.smitherman@cityofloveland.org](mailto:jason.smitherman@cityofloveland.org) or 970-962-3319.**

La Ciudad de Loveland y la Ciudad de Fort Collins están comprometidas a proporcionar igualdad de oportunidades para los servicios, programas y actividades y no discriminar en base a discapacidad, raza, edad, color, origen nacional, religión, orientación sexual o género. Para más información sobre la no discriminación o para asistencia en traducción, favor contacte al Coordinador Título VI de la Ciudad de Loveland al [TitleSix@cityofloveland.org](mailto:TitleSix@cityofloveland.org) o al 970-962-2372. La Ciudad realizará las acomodaciones razonables para los ciudadanos de acuerdo con la Ley de Discapacidades para americanos (ADA). Para más información sobre ADA o acomodaciones, favor contacte al Coordinador de ADA de la Ciudad de Loveland en [jason.smitherman@cityofloveland.org](mailto:jason.smitherman@cityofloveland.org) o al 970-962-3319.

## **EXHIBIT A – SERVICES**

Engineering Services Proposal Taxiways B and D Rehabilitation 37 pages *and*  
Engineering Services Proposal GA Taxilanes Rehabilitation 33 pages

**Page 9**

*Form Approved by Loveland City Attorney 7/7/2022[Laurie Wilson, LW, 7/7/22]  
Form Approved by Fort Collins City Attorney 7/7/2022[Judy Schmidt, JS, 7/7/22]  
For use in accordance with Section 4.A of Amended and Restated Intergovernmental Agreement for the Joint  
Operation of the Fort Collins-Loveland Airport dated January 22, 2015 (the "IGA"), as amended by First  
Amendment dated June 7, 2016 ,*

October 27, 2023

Northern Colorado Regional Airport  
4900 Earhart Road  
Loveland, CO 80538

Attention: David Rupel  
Interim Airport Director

RE: ENGINEERING SERVICES PROPOSAL  
City Project Number: TBD  
FAA AIP No. TBD  
Design and Bid Phase Services  
**Taxiways B and D Rehabilitation**

We appreciate the opportunity to provide design and bid services for the *Taxiways B and D Rehabilitation* project at the Northern CO Regional Airport (FNL). This proposal has been prepared in accordance with the direction provided by the FAA and FNL and with the information discussed during the FAA Project Kick-Off Meeting held on October 25<sup>th</sup>.

Dibble, as the prime consultant, is proposing to complete the Scope of Work as included in this proposal for as follows:

**A. Design and Bid Phase Services:**

1. Dibble (Civil).....	\$ 126,456.72
2. NorthStar Engineering and Surveying (Survey).....	\$9,800.00
3. Terracon (Geotechnical).....	\$27,400.00
<b>Subtotal.....</b>	<b><u>\$163,656.72</u></b>

Transmitted herewith is our proposed Scope of Work, Project Exhibit, Pre-design Construction Cost Estimate, Preliminary Project Schedule, Fee Summary, Derivation of Fee Proposal, Estimated Manhours matrix, Estimated Direct Costs worksheet, and full subconsultant proposals for your review.

We are very grateful for the opportunity to work with FNL on this project. If you need additional information or have questions, please do not hesitate to contact us.

Sincerely,



Jared Bass, P.E.  
Vice President - Sr. Project Manager





## SCOPE OF WORK Northern CO Regional Airport Taxiways B and D Rehabilitation FAA AIP No. TBD October 27, 2023

### Introduction

Dibble (Engineer) has been requested by the Northern CO Regional Airport (FNL or Airport) to provide design and bid phase services for the *Taxiways B and D Rehabilitation* project.

CDOT Aeronautics last performed a surface pavement inspection in 2022 and determined the Taxiway B Pavement Condition Index (PCI) to be 64, with a projected PCI of 62 in 2024. The Taxiway D PCI was 36 in 2022, with a projected PCI of 30 in 2024. Dibble performed another site visit and inspected the pavement in August 2023 and found the pavement to be in the same general condition as expected from the CDOT PCI report.

Dibble also gathered the project history on the two taxiways, which was limited. Taxiways B and D were constructed around the year 1980. No pavement rehabilitation has been recorded, although the pavement condition does show that crack seals and seal coats have been performed in the past. CH2M performed a Pavement Condition inspection in 2013 and documented the pavement section of Taxiways B and D to be 4-inches AC (P-401) on 10-inches ABC (P-209) on 12-inches P-158 (Fly-Ash Stabilized Subgrade). The estimated subgrade CBR was 12 in 2013.

This project will consist of a minimum 2-inch mill and overlay of approximately 8,800 square yards of existing pavement along Taxiways B and D. It is anticipated that there will be a few areas where full depth pavement rehabilitation will be needed due to the width of existing full-depth cracking and localized pavement failures. See pictures below and reference the Project Exhibit included after the scope of work document.



**Taxiway B**



**Taxiway D**

FNL anticipates funding the design and bid phases locally, while seeking reimbursement with a 2024 federal grant, that will also cover the construction costs. The current estimated total project cost is \$1.027M, see attached Pre-Design Cost Estimate.

It should also be noted that this project will be combined with a locally-funded (FNL only) GA Taxilanes project. That project Exhibit is included with this project for reference. The Taxiways B and D project will be Bid Schedule I and the GA Taxilanes project will be Bid Schedule II.

This proposal (design and bid phase services only) is based on a 4-month design phase (December 2023 – March 2024). The bid phase is anticipated to occur March-April 2024 with a bid hold of 120-calendar days (notice of award required around the end of August 2024).

The following Dibble staff are expected on this project:

- Project Principal and Quality Manager – Ken Snyder
- Senior Project Manager – Jared Bass
- Senior Engineer – Nora Sami
- Project Engineer – Derek Williams
- Senior Designer – Travis Woodman
- Administrative Support – Jim Hodge

The following subconsultants are anticipated on this project (their respective proposals are attached):

- Survey: NorthStar Engineering and Surveying
- Geotechnical: Terracon

## Design Phase Services (Lump Sum)

### 1) General Project Management and Pre-Design Tasks:

- a) Project Management and Administration: provide and direct all project management and coordination of the design team and provide coordination between design team members, the Airport, and other interested stakeholders, including the FAA. Administration tasks such as file coordination and miscellaneous project communications throughout the course of the design phase and project printing and packaging at each submittal level will also be included under this task.
- b) Project Meetings: The following are anticipated meetings throughout the design phase:
  - i. FAA Design Kick-Off Meeting: this meeting is generally held prior to the development of the full proposal with FAA and FNL staff to review and finalize the scope of work required by the FAA in the Design, Bid, and Construction Phases.
  - ii. Internal Design Kick-Off Meeting: this meeting will be held at the beginning of the project with FNL to review the scope of work, design schedule, design budget, and critical design elements that require coordination with various airport stakeholders. The team will also coordinate the Survey and Geotechnical efforts with FNL staff.
  - iii. 30% Design Review Meeting: this meeting will be held with FNL, FAA, CDOT Aeronautics, and Dibble Team members to review comments received on the 30% design documents and the next critical steps in the process.
  - iv. 100% Design Review Meeting: this meeting will be held with FNL, FAA, CDOT Aeronautics, and Dibble Team members to review the final submittal items and obtain approval to move into the Bid Phase.
- c) Disadvantaged Business Enterprise (DBE) Annual Goal and Program: Dibble will assist with the development of the 2023/2024 DBE program and goals related to this project. Additionally, Dibble will assist in tracking the DBE participation throughout the course of the project in preparation and submittal of the final, year-end DBE Performance in 2024 to the FAA Civil Rights Office (i.e. Sonia Cruz).
- d) Federal Grant Application: Dibble will create the 2024 FAA Grant Application required for this project to cover Design, Bid, and Construction Phase services. This task item will also include effort to help with the coordination and submittal to the FAA, as well as address any review comments from the FAA. The following elements shall be included in the development of the FAA Grant Application (varies for the design and construction applications):
  - Standard 424 Form
  - Project Exhibit
  - Detailed Construction Cost Estimate
  - Exhibit “A” (colored exhibit with AIP identification)
  - Federal Grant Assurances
  - Verification of Sponsor’s UEI and SAMS (CCR numbers)
  - Project Approval Information
  - SF 5100-100, Parts II, III and IV



- CIP Pre-application Data Sheet for Construction Projects
- Standard DOT Title VI Assurances
- Certification for Contracts, Grants, Loans, and Cooperative Agreements
- Title VI Pre-Award Sponsor Checklist

## 2) Design Start-Up and Data Collection:

- Existing As-Built Document Research and Review: gather and review all available as-built or record drawings, utility maps, surveys, design plans, studies, reports and miscellaneous projects at the airport, relevant to this project. This item shall also consist of reviewing the existing data available for the current pavement and subsoil conditions. All of this information will be coordinated with the surveyors and geotechnical engineers so that any specific data important to the design of this project can be identified and obtained during the field activities.
- Private and City Utility Coordination: coordinate with the known private and City utilities that are on the airport (Water, Wastewater, Drainage, and Electrical, and Public Works Departments), specifically within or adjacent to the project limits. Plans shall be modified to include all received information from those departments on the plans.
- Survey and Coordination and Review: all survey work shall be conducted in compliance with FAA AC 150-5300-16/ 17/ 18. Survey efforts shall include documentation of the survey methodology used for data collection and accuracies thereof, along with use of existing Airport Geodetic Control, Primary and Secondary Airport Control benchmarks, (PACS and SACS). The survey shall utilize a robotic total station, GPS, and differential leveling, collecting topographic features along the project areas, (NAD 83 and NAVD 88, US Survey Feet).

All survey data shall meet or exceed the Level 1A horizontal and vertical minimum requirements for submittal to the OE/ AAA website.

It is anticipated that the survey will be conducted during the daytime.

- Base Map Development and Coordination: develop multiple CAD basemaps including demolition, geometric layouts, grading and drainage, pavement elevations, and utility infrastructure features collected from the topographic field survey, existing design files, field investigations (pictures and notes), and record drawings. Also included in this item is the setup of all construction plan sheets including survey, pavement sections, pavement marking details, notes, etc. All work will be consistent with FAA and City standards, as applicable.
- Geotechnical and Coordination and Review: investigations in the form of drilling test borings will be conducted in accordance with FAA AC 150/5320-6F. Preparatory work will include coordinating access, conducting site reconnaissance of existing conditions and obtaining utility clearances for field borings. The FAA AC 150/5320-6G *Pavement Design* recommends cores taken every 200-feet for new or full reconstruction of taxiways. Given this is a mill and overlay project we will take two (2) cores along Taxiway B and four (4) cores along Taxiway D.

It is anticipated that the geotechnical investigations will be conducted during the daytime.

The geotechnical consultant shall sample six (6) test borings along the existing taxiways to adequately determine pavement and subsoil conditions and provide samples for laboratory testing. Pavement cores will be cut before digging and patched after completion. Non-shrink grout shall be used to fill the cores. Depth of investigation shall be 10-feet below existing ground surface, or auger refusal, whichever comes first.

Laboratory Analysis: Conduct sufficient laboratory tests to properly classify soils encountered and provide data for engineering design, including:

- Taxiway Pavement Depths
- Grain Size Analysis
- Plasticity Index

- Moisture Density Relations
- Existing CBR
- Existing PCR
- In-place Density
- Moisture Content

Geotechnical Report: Analyze the data obtained from field and laboratory testing and prepare a draft and final report presenting all data obtained, including individual Log of Test Borings, and Tabulation of Test Data.

### 3) 30% Progress Submittal:

- a) 30% Design Plans: progress the design to the 30% level. 30% plans are anticipated to include the following:
- Cover Sheet
  - General Construction Notes (FAA and City)
  - Design Legend, Abbreviations, Sheet Index
  - Quantities Sheet
  - Survey Control Plan (establishment of survey control)
  - Stormwater Pollution Prevention Plan and Details (1 sheet)
  - Airport Site Plan
  - Project Site Plan
  - Construction Phasing and Barricade Plan (2 sheets)
  - Pavement Section and Typical Section Details and Profiles
  - Demolition Plan (1 sheet)
  - Geometric Control Plans (2 sheets)
  - Paving and Grading Plans (2 sheets)
  - Pavement Marking Plans and Details (2 Sheets)
  - Geotechnical Boring Location Map and Boring Logs (2 sheets)

Total Sheet Count estimated at the 30% Submittal = 20

- b) Draft Engineer's Design Report: the draft Engineer's Design Report shall be prepared in accordance with the latest FAA – Northwest Region suggested outline. The Draft Report shall provide design criteria and standards anticipated to be used in developing the construction documents (i.e. plans and technical specifications). The Draft Report shall document the upfront investigative results such as taxiway conditions, geotechnical investigations, and design concepts. The report shall cover the following (at a minimum), however, some of the sections below may not be included in the Draft Report but will be covered in the Final Report and are identified below for consistency:
- Project Background
  - History of Applicable Airport Facilities
  - Project Scope of Work
  - Photographs of the Project Site
  - List of anticipated and applicable Design Standards (FAA AC 150/5300-13B)
  - Discussion of Environmental Actions and Determinations (see CATEX Section 3.e)
  - Geotechnical Investigations (Pavement and Soils Conditions and Site Requirements)
  - Pavement Design and Standards (FAA AC 150/5320-6G)
  - Material Availability
  - Pavement Markings (FAA AC 150/5340-1M)
  - FAA Owned Facilities (as applicable)
  - Non-AIP Work (as applicable)
  - Engineer's Cost Estimate (i.e. Total Project and Construction Cost)
  - DBE Participation
  - Construction Safety and Phasing
  - Miscellaneous Work Items
  - Pre-Design Meeting Minutes

- Reference Documents (i.e. applicable FAA Advisory Circulars, ALP, etc.)
- c) FAA Categorical Exclusion (CATEX): A federal CATEX has been developed and approved previously for this project. There will be minor coordination with FAA over the course of the design phase. Dibble will include a discussion on the history of the federal environmental process that took place and the FAA's overall approval. The FAA's determination (CATEX) will be included as an appendix to the overall engineer's design report.
- d) 30% Quantities and Engineer's OPCC: based on the 30% construction plans and technical specifications, the Engineer will develop a 30% Opinion of Probable Construction Cost (OPCC). The unit pricing for each line item will be based on recent bid tabulations from comparative projects, locations, materials, and quantities available at that time.
- e) Draft Contract Documents and Technical Specification: The draft contract documents, and technical specifications will be developed by the Engineer in a manner consistent with the regulations and standards set forth by the funding agencies anticipated for construction, (i.e. FAA and City). Contract documents shall include all bidding requirements, Federal General Provisions that control the work of the Contractor, Federal Assurances specific to this project, Federal Wage Rates, Buy American Provisions, City Special Provisions (if any), and Federal Technical Specifications for the materials with measurement and payment controlled on a unit price basis. The Draft Contract Documents will be submitted to the City for review of legality and then submitted for review by the FAA. The Technical Specifications will be consistent with the latest, available version of FAA AC 150/5370-10. Technical Specifications will include the following (at a minimum):
- C-100 Contractor Quality Control Program
  - C-102 Temporary Air and Water Pollution, Soil Erosion and Siltation Control
  - C-105 Mobilization
  - C-110 Method of Estimating Percent Within Specification Limits
  - P-101 Preparation/Removal of Existing Pavement
  - P-152 Excavation and Embankment
  - P-401 Hot Mix Asphalt (HMA) Pavements
  - P-603 Bituminous Tack Coat
  - P-608 Emulsified Asphalt Seal Coat
  - P-620 Airfield Pavement Marking
- f) FAA FAARFIELD Existing Pavement Section Analysis: the Engineer will coordinate the data from the geotechnical investigations and provide an analysis of the existing pavement sections and subgrade conditions. The Engineer will also calculate new Pavement Condition Ratings (PCR) for the existing pavement taxiway sections and anticipated life cycle.
- g) Draft Construction Safety and Phasing Plan (CSPP): a Draft CSPP will be developed to be included in the contract documents as guidance to the contractor on important safety standards and regulations that are typically required on airport construction projects. The CSPP will be prepared in accordance with the latest, available FAA AC 150/5370-2. Guidance will be provided to direct the Contractor awarded the project for standards and safety while performing construction activities on an airport. Construction phasing and barricade plans will also be provided in this report for reference during construction.
- This Plan will be submitted to the FAA for review and any comments received by the FAA will be addressed. Once finalized, the Engineer will submit the Plan on the FAA airspace review website, *Obstruction Evaluation and Airport Airspace Analysis (OE/AAA)*, (after the 30% Submittal).
- h) 30% Internal QA/QC Project Review: in addition to the continual quality assurance reviews performed by senior practice staff, Dibble will perform additional quality control reviews prior to each submittal utilizing standardized checking processes by a Senior QC Manager. Each subconsultant will be responsible for their own Quality Control, however, the Senior QC Manager will review all combined project documents for consistency amongst the design elements before each submittal as well.

- i) 30% Plan-In-Hand Site Visit: perform a plans-in-hand site visit to visually compare the plans and survey data to existing field conditions. Design elements will be reviewed and/or confirmed in the field such as utility infrastructure and structures (visible in the field), pavement markings, grades, project limits, drainage conditions, etc. Inconsistencies found during the field investigations (if any) will be corrected on the construction documents.

#### **4) 100% Final Documents ( Bid Ready) :**

- a) 100% Final Plans: sealed, 100% plans shall have all internal and external review comments by the Airport and FAA incorporated and addressed. The plans will be prepared for the bidding phase.
- b) Final Contract Documents and Technical Specification: the final bid contract documents and technical specifications shall have all internal and external review comments by the Airport, City, and FAA incorporated and addressed. The contract documents and technical specifications will be prepared for the bidding phase.
- c) 100% Quantities and Engineer's OPCC: based on the final construction plans and technical specifications, the Engineer shall provide a final bidding schedule in the contract documents and an OPCC based on a unit price basis, reflecting recent bid tabulations from comparative projects, locations, materials, and quantities available at that time.
- d) Final Engineer's Design Report: The Final Engineer's Design Report shall provide all the design criteria and standards used in developing the construction documents (i.e. plans and technical specifications) and document the work and results of investigative efforts. The final report shall also address any review comments received from all internal and external reviews, including the Airport, City, and FAA.
- e) Final Internal QA/QC Project Review: in addition to the continual quality assurance reviews performed by senior practice staff, Dibble will perform additional quality control reviews prior to each submittal utilizing standardized checking processes by a Senior QC Manager. Each subconsultant will be responsible for their own Quality Control, however, the Senior QC Manager will review all combined project documents for consistency amongst the design elements before each submittal as well.

#### **Bid Phase Services ( Lump Sum)**

##### **5) Bid Phase Services:**

- a) Bid Phase Management and Administration: Provide all project management and coordination of the design team and the FNL and FAA during the 1-month bidding phase.
- b) Pre-Bid Meeting and Site Visit: Attend the pre-bid meeting and assist the Airport in conducting the meeting. The Engineer, upon the direction of the Airport, will provide a brief overview of the project and contract components, identifying important elements within the documents that the Contractors should be particularly familiar with prior to submitting a bid. The Engineer shall also assist the Airport in developing and submitting the pre-bid meeting minutes to all plan holders.

The Engineer will also assist the Airport with the airfield site visit for all interested parties.

- c) Contractor Questions: The Engineer will coordinate, address, and appropriately respond to all contractor communications and questions during the bidding process. Responses will be submitted through addenda as needed. All communication will be in compliance with the Airport regulations and requirements.
- d) Bid Addenda: Pending contractors' reviews, comments, and questions, the Engineer will assist the Airport in developing, issuing any necessary addenda, and notifying all planholders/bidders. Addenda may include revision to construction documents (i.e. plans and technical specifications). It is anticipated that a maximum of two (2) addenda will be issued for this project.

- e) **Bid Opening Meeting**: The Engineer will attend the bid opening meeting to assist the Airport and City in reviewing and organizing the bidding documents from each contractor.
- f) **Bid Tabulation and Letter of Recommendation of Award**: The Engineer will evaluate each bid submitted for mathematical/calculative errors and for comparative purposes against the Engineer's OPCC and other bids submitted. The Engineer will provide a bid summary letter stating all inconsistencies and results and a recommendation for the lowest responsible, responsive bidder. Included with this effort will be the review and evaluation support of the other contract components such as the DBE subcontractor evaluation.

The Engineer will further assist the Airport and City with review of the bidder's compliance with the other required contract documents included in the bidding documents.

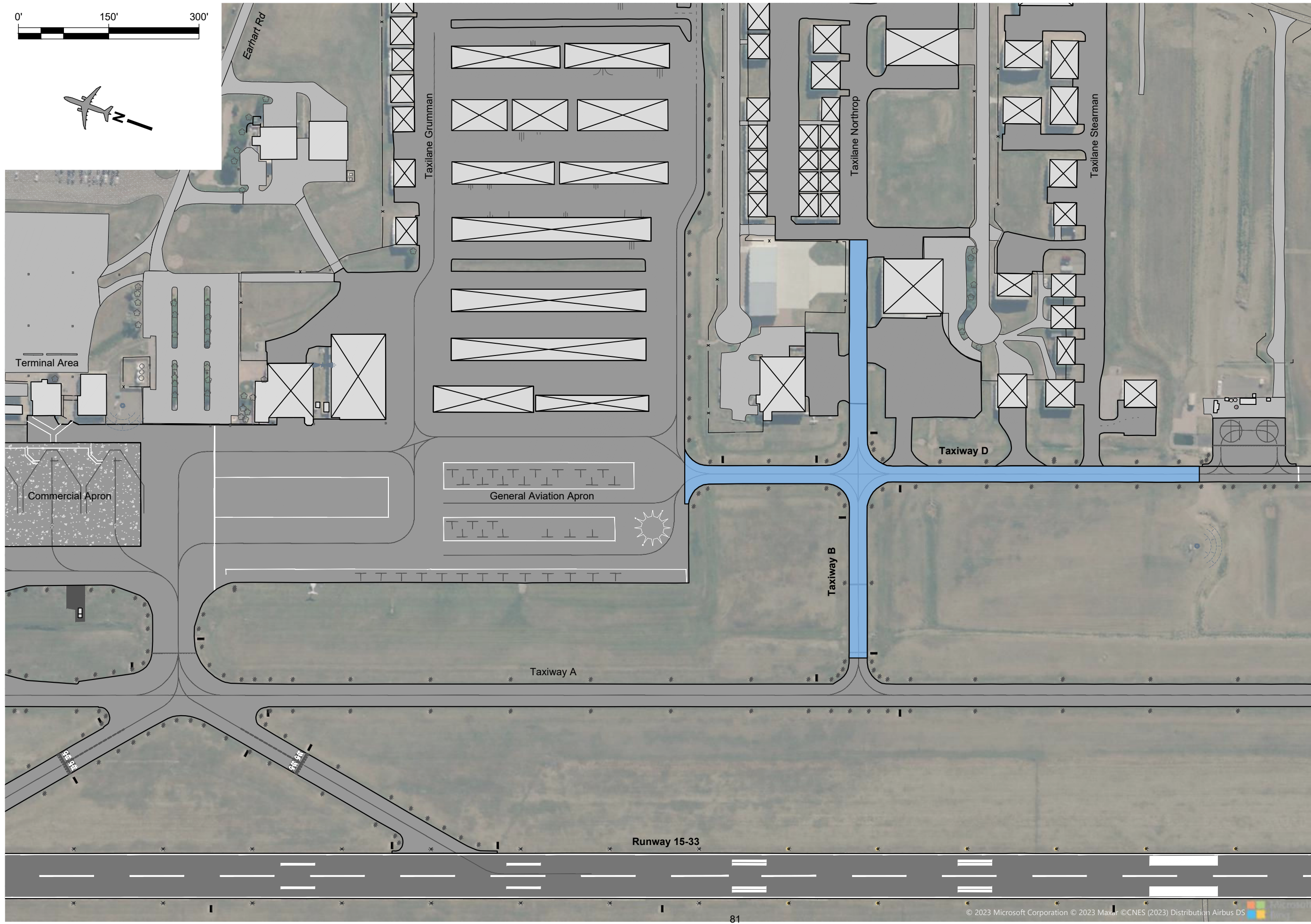
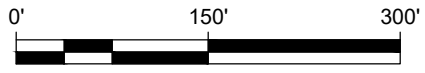
## **6) Miscellaneous and Assumptions:**

- a) Design Schedule: this proposal (design and bid phase only) is based on a 4-month design phase (December 2023 – March 2024). The bid phase is anticipated to occur March-April 2024 with a bid hold of 120-calendar days (notice of award required by end of August 2024).
- b) All plans are to be prepared in AutoCAD Civil 3D 2021.
- c) This proposal has been prepared to reflect effort to produce plans and specifications for a single bid package, (i.e. no alternates).
- d) The following number of trips are anticipated by the Project Manager for the Design Phase to cover all the on-site meetings identified in this scope:
  - 1. Design Phase – 3 Trips (two staff members each trip):
    - i. Project Kick-Off Meeting
    - ii. 30% Project Review Meeting and Site Visit
    - iii. Final Site Visit and Plan Review
  - 2. Bid Phase – 2 Trips
    - i. Pre-Bid Meeting
    - ii. Bid Submittal

## **7) Exclusions To This Scope of Work:**

- a) Construction Phase Services.
- b) Landscape, Irrigation, and Environmental Design Services.
- c) Structural Engineering, Mechanical, or Architectural Design Services.
- d) Revisions to the most current offsite watershed hydrology model(s).
- e) Drainage design.
- f) FEMA Letters of Map Revision.
- g) Permit-Ready Storm Water Pollution Prevention Plans (SWPPP) (Contractor's Responsibility).
- h) Single bid Phase effort (Bid Phase in early 2024)
- i) Attending or participation in a Safety Risk Management Meeting (SRM) or developing the SRM report.
- j) Utility Locating or potholing.
- k) FAA Modifications to Standards.
- l) FAA Title VI and Community Participation Plan (FAA Form 5100-145).





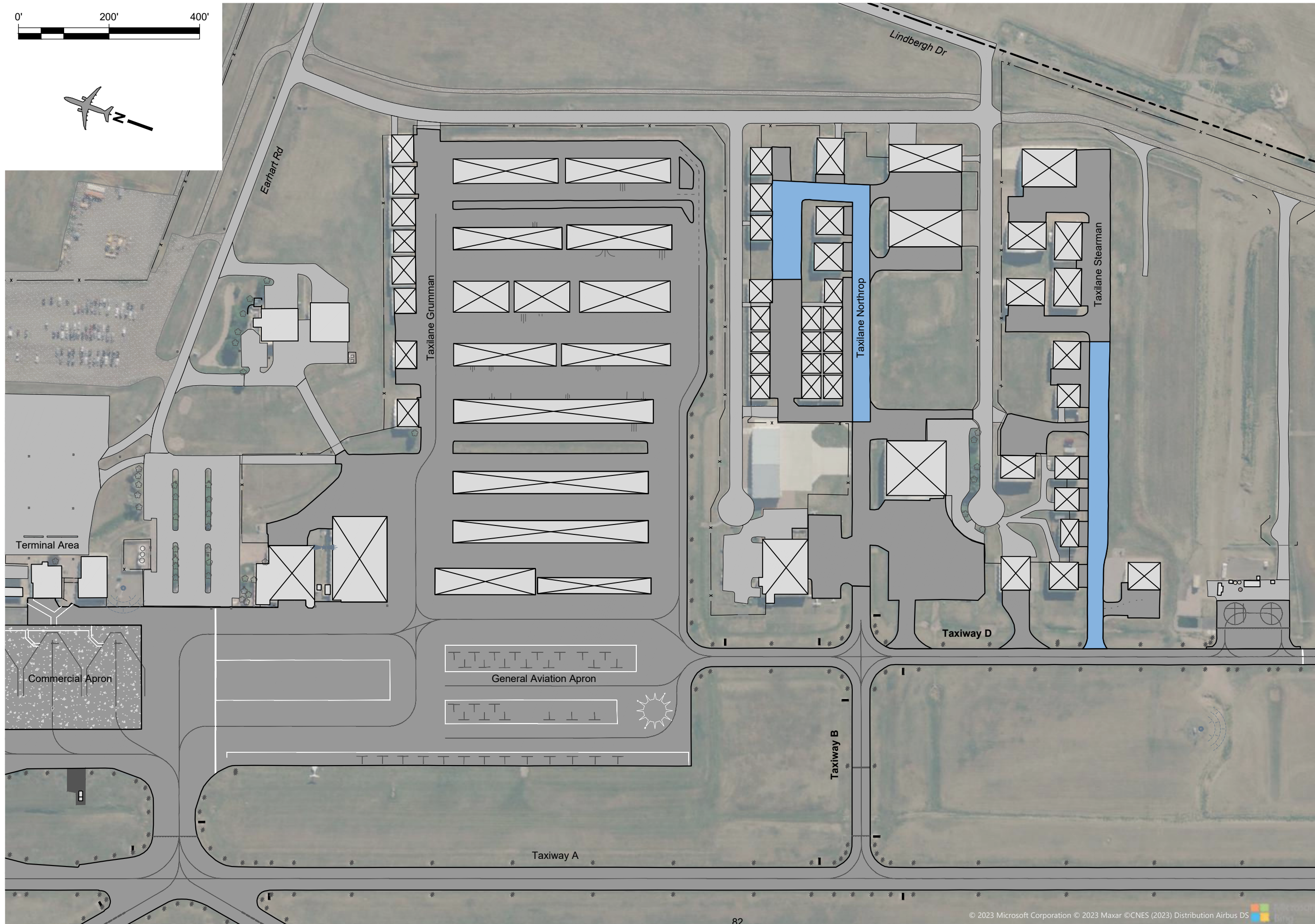
- Legend:
- Existing Facilities
  - Taxiway B & D Rehab
  - Existing Property Line

- Notes:
- N/A

Scale based on a 11"x17" sheet.

**Northern Colorado Rgnl'**  
 Taxiway B & D Rehabilitation  
 Project Exhibit  
 Date: 10.17.23





Legend:

- Existing Facilities
- GA Taxilanes Rehab
- Existing Property Line

Notes:

- N/A

Scale based on a 11"x17" sheet.

**Northern Colorado Rgnl'**  
GA Taxilanes Rehabilitation  
Project Exhibit  
Date: 10.17.23



NORTHERN CO REGIONAL AIRPORT  
TAXIWAYS B & D Mill and Overlay  
PRE-DESIGN COST ESTIMATE

LINE No.	DESCRIPTION	APPROX. QTY.	UNIT	UNIT PRICE	AMOUNT
<b>CIVIL</b>					
1	Contractor Quality Control	1	LS	\$20,000.00	\$20,000.00
2	Mobilization	1	LS	\$40,000.00	\$40,000.00
3	SWPPP	1	LS	\$12,000.00	\$12,000.00
4	Airfield Safety/ Security	1	LS	\$25,000.00	\$25,000.00
5	Sawcut AC Pavement (2-inch Depth)	600	LF	\$10.00	\$6,000.00
6	Mill AC Pavement (2-inch Depth)	8,800	SY	\$20.00	\$176,000.00
7	AC Pavement (2-inch Depth)	1,000	TON	\$185.00	\$185,000.00
8	Crack Seal	1,600	LF	\$20.00	\$32,000.00
9	Tack Coat	8,800	SY	\$4.00	\$35,200.00
10	Pavement Marking	1,500	SF	\$4.00	\$6,000.00
<b>Civil Subtotal</b>					<b>\$537,200.00</b>
<b>Electrical</b>					
11	Electrical	0	LS	\$0.00	\$0.00
<b>Electrical Subtotal</b>					<b>\$0.00</b>
<b>CONSTRUCTION SUBTOTAL</b>					<b>\$537,200.00</b>
Misc & Other Unknown Items					\$190,000.00
<b>CONSTRUCTION TOTAL</b>					<b>\$727,200.00</b>
Engineering					\$175,000.00
Construction Admin					\$125,000.00
Airport Admin					\$0.00
<b>PROJECT TOTAL</b>					<b>\$1,027,200.00</b>

Firm: Dibble Engineering  
 On-Call Engineering  
 Project: **Taxiway B & D**  
**Design and Bid Phase Services**  
 Northern Colorado Regional Airport  
 Date: 10/27/2023



NORTHERN COLORADO  
 REGIONAL AIRPORT



Contract Number: TBD  
 Project Number: TBD  
 Task Number: TBD  
 Amendment Number: N/A  
 FAA Number: TBD  
 CDOT Number: TBD

**Summary**

**Dibble**

**Subs**

**A. Design and Bid Phase Services**

	<b>Fee</b>	<b>Type</b>		
1 Dibble Engineering.....	\$126,456.72	Lump Sum	\$126,456.72	
2 NorthStar Engineering and Surveying (Survey).....	\$9,800.00	Lump Sum		\$9,800.00
3 Terracon (Geotech).....	\$27,400.00	Lump Sum		\$27,400.00

	<b>TOTAL</b>		<b>Dibble</b>	<b>Subconsultants</b>
<b>Total.....</b>	<b>\$163,656.72</b>		<b>\$126,456.72</b>	<b>\$37,200.00</b>

Firm: Dibble Engineering On-Call Engineering	Contract Number: TBD
Project: <b>Taxiway B &amp; D</b> <b>Design and Bid Phase Services</b>	Project Number: TBD
Northern Colorado Regional Airport	Task Number: TBD
Date: 10/27/2023	Amendment Number: N/A
	FAA Number: TBD
	CDOT Number: TBD

**DESIGN PHASE SERVICES SUMMARY**

Classification	Total Hours	Billing Rates	Total Costs
1 Principal	8	\$295.00	\$2,360.00
2 Senior Project Manager	140	\$225.01	\$31,501.40
3 Project Manager	0	\$205.02	\$0.00
4 Senior Engineer	138	\$205.02	\$28,292.76
5 QA/QC Manager	16	\$295.00	\$4,720.00
6 Project Engineer	170	\$172.01	\$29,241.70
7 Senior Designer	164	\$146.99	\$24,106.36
8 Admin Assistant	50	\$85.01	\$4,250.50

<b>Totals:</b>	<b>686</b>		<b>\$124,472.72</b>
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**DESIGN PHASE SERVICES DIRECT COSTS**

Item	Cost	Type of Compensation
1 Submittal Printing (Dibble).....	\$868.00	Direct Cost
2 Travel (Dibble).....	\$426.00	Direct Cost
3 Meals (Dibble).....	\$690.00	Direct Cost
Sub-Total for Direct Costs.....		<b>\$1,984.00</b>

**DESIGN PHASE SERVICES SUBCONSULTANTS**

Firm	Cost	Type of Compensation
1 NorthStar Engineering and Surveying (Survey).....	\$9,800.00	Lump Sum
2 Terracon (Geotech).....	\$27,400.00	Lump Sum
Sub-Total for Subconsultants: .....		<b>\$37,200.00</b>

**DESIGN PHASE SERVICES TOTAL FEE**

<b>TOTAL FEE.....</b>	<b>\$163,656.72</b>
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Firm: Dibble Engineering  
 On-Call Engineering  
 Project: **Taxiway B & D**  
**Design and Bid Phase Services**  
 Northern Colorado Regional Airport  
 Date: 10/27/2023

Contract Number: TBD  
 Project Number: TBD  
 Task Number: TBD  
 Amendment Number: N/A  
 FAA Number: TBD  
 CDOT Number: TBD

DESIGN PHASE SERVICES - ESTIMATED MANHOURS									
TASK	PRINCIPAL	SENIOR PROJECT MANAGER	PROJECT MANAGER	SENIOR ENGINEER	QUALITY MANAGER	PROJECT ENGINEER	SENIOR DESIGNER	ADMIN ASSISTANT	TOTAL HOURS BY TASK
<b>1 General Project Management and Pre-Design Tasks</b>									
1a Project Management & Administration		40						10	50
1b Project Meetings	8	8		8		8	8	8	48
1c Disadvantage Business Enterprise (DBE) Annual Goal and Program		2						8	10
1d Federal Grant Application		2				8		8	18
<b>2 Design Start-Up and Data Collection</b>									
2a Existing As-Built Document Research and Review		4		12					16
2b Private and City Utility Coordination				4		6		6	16
2c Survey and Coordination and Review		4					6		10
2d Base Map Development and Coordination						8	40		48
2g Geotechnical Coordination and Review		8		8					16
<b>3 30% Progress Submittal</b>									
3a 30% Design Plans		8		12		24	60		104
3b Draft Engineer's Design Report		4		24		8	4		40
3c FAA Categorical Exclusion (CATEX)		2		2		12		2	18
3d 30% Quantities and Engineer's OPCC		2		2		8	8		20
3e Draft Contract Documents and Technical Specifications		4		16		24			44
3f FAA FAARFIELD Existing Pavement Section Analysis		4		8					12
3g Draft Construction Safety and Phasing Plan (CSPP)		4				32	4		40
3h 30% Internal QA/QC Project Review					8				8
3i 30% Plan-In-Hand Site Visit		4		4					8
<b>4 100% Final Documents (Bid Ready)</b>									
4a 100% Final Plans		8		8		12	24		52
4b Final Contract Documents and Technical Specifications		6		8		8			22
4c 100% Quantities and Engineer's OPCC		2		2		6	6		16
4d Final Engineer's Design Report		4		8			4		16
4e Final Internal QA/QC Project Review					8				8
<b>5 Bid Phase Services</b>									
5a Bid Phase Management and Administration		8						2	10
5b Pre-Bid Meeting and Site Visit		2		2					4
5c Contractor Questions		2		4					6
5d Bid Addenda		4							4
5e Bid Opening Meeting		2							2
5f Bid Tabulation and Letter of Recommendation of Award		2		6		6		6	20
<b>TOTAL HOURS BY CLASSIFICATION</b>	<b>8</b>	<b>140</b>	<b>0</b>	<b>138</b>	<b>16</b>	<b>170</b>	<b>164</b>	<b>50</b>	<b>686</b>



Firm:	Dibble Engineering On-Call Engineering	Contract Number:	TBD
Project:	<b>Taxiway B &amp; D</b> <b>Design and Bid Phase Services</b> Northern Colorado Regional Airport	Project Number:	TBD
Date:	10/27/2023	Task Number:	TBD
		Amendment Number:	N/A
		FAA Number:	TBD
		CDOT Number:	TBD

**DESIGN AND BID PHASE SERVICES DIRECT COSTS**

**1. PRINTING ( 30% and 100% 'Bid Set' Submittals)**

a.	2 Submittals of (2 Copies Full-Size Bond Plans)	20 sheets =	20 Sheets @	\$1.50 /sheet	\$120
b.	2 Submittals (4 Copies Scaled 1/2-Size Plans)	20 sheets =	20 Sheets @	\$0.30 /sheet	\$48
c.	2 Plotting	20 sheets =	20 Sheets @	\$1.50 /sheet	\$120
d.	2 Submittals for Spec Book (2 copies @ 650 pages each)	@	700 Sheets @ (double-sided)	\$0.10 /sheet	\$280
e.	2 Submittals for Eng. Report (2 copies @ 300 pages each)	@	300 Sheets @ (single-sided)	\$0.25 /sheet	\$300

**2. Lodging**

a.	0 Day	0 Staff	\$113.00 /Day (2023 Federal Per Diem)	\$0
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**3. Travel**

a.	5 Trips	130 miles	\$0.655 /mile (2023 Federal Per Diem)	\$426
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**4. Meals**

a.	5 Days	2 Staff	\$69.00 /Day (2023 Federal Per Diem)	\$690
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**DESIGN AND BID PHASE TOTAL** \$1,984



111 E. 5<sup>th</sup> Street  
Pueblo, CO 81003

(719) 544-6823  
(719) 544-6825 Fax

Michael L Cuppy, P.E., P.L.S.

17 015 14  
October 20, 2023

Dibble Engineering  
2696 South Colorado Boulevard, Suite 585  
Denver, CO 80222

Attn: Jared Bass, Senior Project Manager

Via: email: <jared.bass@dibblecorp.com>

Re: Loveland FNL TW B and D Rehab Surveying Support services.

We are pleased to present this "Work Authorization Agreement" for performing Professional Engineering and Surveying services with regard to the above referenced project. Please find a list below of the services that are to be provided:

**TASK A: ASBUILT AREAS OF TAXIWAYS B AND D, THE LIMITS OF WHICH ARE DESCRIBED BELOW AND ON EXHIBIT PROVIDED BY DIBBLE INCLUDING:**

1. All survey work to be executed in compliance with FAA AC 150-5300-16/17/18, documenting the survey methodology used for data collection and accuracies thereof (Pictures and Notes), along with use of existing Airport Geodetic Control, PACS and SACS. The survey shall utilize a robotic total station, GPS, and differential leveling, collecting topographic features along the project areas based on NAD 83 Horizontal coordinates and NAVD 88 vertical datum. Coordinates shall be area ground modified State Plane, Colorado South Zone. The survey shall meet the vertical and horizontal tolerances of a Level 1A survey.
2. Edge of asphalt in highlighted area
3. Taxiway pavement 50' grid, and centerline
4. All electrical lighting, signage, and handholds/manholes
5. All pavement markings
6. Locations of soil samples/cores on runway pavement, if applicable
7. Final deliverable: preconstruction "Asbuilt" basemap in AutoCAD 2021 or later format.

**TOTAL TASK A: (lump sum) ..... \$8,200.00**

**TASK B: Survey Control Sheet, to include:**

1. Prepare Survey Control Sheet and update for 2 submittals per FAA criteria and specifications.
2. Survey Control sheet to meet all requirements outline in Task A item 1.

**TOTAL TASK B: (lump sum) ..... \$1,600.00**

**THE FOLLOWING ITEMS ARE NOT INCLUDED IN THIS PROPOSAL (A formal Proposal for any of these services can and will be prepared at Client request):**

1. Asbuilt survey of any item not specifically listed above.

**General Conditions**

NorthStar Engineering and Surveying, Inc. ("NorthStar") will perform the services listed above, subject to the conditions listed below. Our fees for providing these services will be as indicated above. Any additional services required to complete the project will be billed per our current Time and Materials rates. Any additional work required by NorthStar or by the Client to complete the project shall be acknowledged by the Client and made a portion of the Work Authorization Agreement ("Agreement"). This Agreement may not be amended, nor any obligations hereunder waived, except by written agreement signed by all parties to the Agreement.

**NorthStar Services**

NorthStar will perform its services in a manner consistent with the level of care and skill ordinarily exercised by other design professionals in the same geographic area as the underlying project.

NorthStar does not have control over, and is not responsible for, construction means, methods, techniques, sequences, or procedures.

Construction observation services are not a part of this Agreement unless specifically identified above. Construction staking or survey control staking is not construction observation, nor is it an inspection, ratification, or approval of prior work performed by others, including but not limited to, design and/or construction professionals.

Estimates of cost are NorthStar's opinions of probable cost, based on NorthStar's experience and familiarity with the construction industry. NorthStar cannot guarantee that bids or final construction costs will not vary from NorthStar's estimate or opinion.

**Payment**

Any permit fees or title company fees are the responsibility of the client and are not included in this Agreement. Also, all direct reimbursable expenses incurred in performance of this project will be invoiced at cost plus ten percent.

NorthStar's policy is to invoice the address listed above by the 1st day of every month. Payment is due on receipt of invoice and to be received no later than the 25th day of that month. Client shall advise if a different invoice date is required.

The Client agrees that the balance stated on the invoice from NorthStar to Client is correct, conclusive, and binding on the Client, unless the Client notifies NorthStar of objections or inaccuracies within 30 days of receipt of the invoice.

Payment not received by NorthStar by the 25<sup>th</sup> day of the month will cause all work to stop on the project, and an assessment of interest at the rate of two percent monthly.

Client agrees to pay NorthStar's costs of collection, including reasonable attorney's fees, for any amounts that remain unpaid 90 days after billing.

In the event the Client wishes to terminate the services of NorthStar, the Client shall pay NorthStar Time and Materials rates up to the date of termination.

#### Limitation of Liability/Damages

NorthStar's total liability to Client, for any and all injuries, claims, losses, expenses, or damages arising out of this Agreement shall not exceed the amount of the fee paid by Client to NorthStar. NorthStar's tender of payment in this amount shall constitute a fulfillment and complete satisfaction of any and all of NorthStar's liabilities, obligations, representations or warranties related to or arising from this Agreement.

NorthStar and Client mutually agree to waive all claims of consequential damages arising from claims, disputes, or other matters related to this Agreement.

#### Statute of Limitations

The statute of limitations for any claims arising from NorthStar's work shall begin to run as of the date that NorthStar submits an invoice for 100% of the fee listed above.

#### Indemnity

The Client shall defend, indemnify and hold harmless NorthStar and its personnel from and against any and all claims, damages, losses and expenses, including reasonable attorney's fees, arising out of or resulting from the performance of NorthStar's work, provided that any such claim, damage, loss, or expense is caused in whole or in part by the negligent act or omission of the Client, or anyone directly or indirectly retained or employed by the Client (except NorthStar). This indemnification includes, but is not limited to, claims or losses due to the presence of hazardous materials. This indemnification includes, but is not limited to, claims alleged to have arisen from the contractor's performance or the alleged failure of the contractor's work to conform to the design intent and the contract or project documents.

#### Instruments of Service

NorthStar provides services, the scope of which are set forth above, not a product. Sketches, designs, computations, survey notes, reports, specifications, and other original documents of any sort are instruments of that service; they are the written depiction of NorthStar's intellectual process. NorthStar retains sole and exclusive ownership of these documents, unless the documents are required to be filed for public record by a governmental agency having proper jurisdiction.

Any use or reuse of original or altered physical documents or electronic files or CADD adaptation of NorthStar plans or documents for any use other than the specific purpose intended by NorthStar, without the prior written permission of NorthStar, is prohibited. The Client agrees to indemnify, defend, and hold harmless NorthStar from any and all claims, suits,

or liability arising from the unauthorized use of NorthStar's work by person or entities not party to this Agreement.

Additional Provisions

Client agrees that NorthStar shall be entitled to recover all costs incurred in enforcing any provision of this Agreement, including court costs and attorney's fees.

This Agreement is not intended to be, and shall be construed to be, intended for the benefit of any person or entity that is not a signatory party to this Agreement. No person or entity, other than signatory parties, will have any right or cause of action under this Agreement.

This Agreement shall be governed by the laws of the State of Colorado. Venue for any litigation arising from this Agreement shall be in the Pueblo County District Court.

With the exception of actions by NorthStar to recover amounts due and owing, all other disputes or claims arising from this Agreement shall be submitted first to non-binding mediation, and then to binding arbitration if mediation is unsuccessful. Arbitration shall be conducted by a single arbitrator, mutually chosen by the parties. If the parties cannot agree on an arbitrator, a party seeking enforcement of this arbitration agreement may request, as part of a petition for enforcement, that a Pueblo County District Court judge appoint an arbitrator.

If any clause or provision of this Agreement is determined to be illegal, invalid, or unenforceable by a court of competent jurisdiction, the remainder of this Agreement shall not be affected thereby and shall remain in full force and effect.

Please review this Work Authorization Agreement carefully, for it represents a binding contract when signed. If this Agreement is acceptable, please have a duly authorized representative sign on the space provided below and return the original to us as notice of authorization to proceed. We appreciate the opportunity to be of service to you.

NorthStar Engineering and Surveying, Inc.



Michael L. Cuppy, P.E., P.L.S.  
President/Principal

Accepted By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

111 East 5<sup>th</sup>  
Street p



(719) 544-6823  
Fax (719) 544-6825

Michael L. Cuppy, P.E., P.L.S.

**SCHEDULE OF STANDARD TIME AND MATERIAL RATES**  
(January 1, 2023 to January 1, 2024)

**OFFICE ENGINEERING AND PLANNING:**

Principal .....	\$180.00/hr.
Registered Professional Engineer (Project Manager) .....	\$150.00/hr.
Licensed Land Surveyor (Project Manager). .....	\$140.00/hr.
Project Engineer (EI)/Surveyor (SI) .....	\$125.00/hr.
Engineer/Planner .....	\$110.00/hr.
Designer / GIS .....	\$ 100.00/hr.
AutoCAD Technician .....	\$ 90.00/hr.
Accounting .....	\$ 70.00/hr.
Clerical .....	\$ 50.00/hr.
Messenger .....	\$ 35.00/hr.

**FIELD ENGINEERING AND SURVEYING:**

3-Man Survey Crew .....	\$175.00/hr.
Overtime Rate .....	\$200.00/hr.
2-Man Survey Crew .....	\$160.00/hr.
Overtime Rate .....	\$180.00/hr.
1-Man Survey Crew .....	\$125.00/hr.
Overtime Rate .....	\$145.00/hr.
Construction Manager .....	\$130.00/hr.
Construction Inspector .....	\$115.00/hr.
Survey Crew – Out of Town Drive Time .....	\$120.00/hr.
GPS Equipment: Standard Survey Crew Rate Plus .....	\$ 50.00/hr.

**REIMBURSABLE RATES:**

Blueline Prints .....	\$ 0.70/sq.ft.
Mylar Prints .....	\$ 2.85/sq.ft.
Color Bond .....	\$ 2.20/sq.ft.
Xerox Copies .....	\$ 0.20/ea.
Color Copies (8.5x11) .....	\$ 2.25/ea.
Large Xerox Copies .....	\$ 2.20/ea.

**SUBCONTRACTED EXPENSES AND SPECIAL EQUIPMENT:**

Mileage – Trucks and Autos .....	\$ 0.60/mile
Direct Costs plus 15%	

**NOTE:** In the event Principals are involved for an extended period on a project, rates charged will be commensurate with work performed.





1901 Sharp Point Drive, Suite C  
 Fort Collins, Colorado 80525  
 P (970) 484-0359  
 F (970) 484-0454  
[Terracon.com](http://Terracon.com)

October 27, 2023

Dibble & Associates Consulting Engineers, Inc.  
 2696 South Colorado Boulevard, Suite 585  
 Denver, Colorado 80222

**Attn:** Mr. Jared Bass, P.E.  
 P: (303) 872-5756  
 E: [jared.bass@dibblecorp.com](mailto:jared.bass@dibblecorp.com)

**RE:** Proposal for Geotechnical Engineering Services  
 Northern Colorado Regional Airport Taxiway B & D Rehabilitation  
 4900 Earhart Road  
 Loveland, Colorado  
 Terracon Proposal No. P20235064

Dear Mr. Bass:

We appreciate the opportunity to submit this proposal to Dibble & Associates Consulting Engineers, Inc. (Dibble) to provide Geotechnical Engineering services for the project referenced above. The following are exhibits to this proposal.

Exhibit A	Project Understanding
Exhibit B	Scope of Services
Exhibit C	Compensation and Project Schedule
Exhibit D	Site Location and Nearby Geotechnical Data
Exhibit E	Anticipated Exploration Plan

Our estimated base fee to perform the Scope of Services described in this proposal is \$27,400. Fees associated with private utility locating and pavement coring services are included in our estimated base fee provided above. However, they will be invoiced at cost plus 15 percent so our proposed fee may change slightly. Exhibit C includes details of our fees and consideration of additional services as well as a general breakdown of our anticipated schedule.

**Proposal for Geotechnical Engineering Services**

Northern Colorado Regional Airport Taxiway B & D Rehabilitation | Loveland, Colorado  
October 27, 2023 | Terracon Proposal No. P20235064



Your authorization for Terracon Consultants, Inc. (Terracon) to proceed in accordance with this proposal can be issued by providing us with an Independent Consultant Agreement form for our review. We anticipate the agreement can be executed once Terracon and Dibble have agreed to mutually acceptable contract terms and conditions.

Sincerely,

**Terracon**

A handwritten signature in blue ink that reads 'Alec N. Strassburg'.

Alec N. Strassburg, P.E.  
Project Engineer

A handwritten signature in blue ink that reads 'Eric D. Bernhardt'.

Eric D. Bernhardt, P.E.  
Regional Geotechnical Manager



## Exhibit A – Project Understanding

Our Scope of Services is based on our understanding of the project as described by Dibble and the anticipated conditions as described below. We have not visited the project site to confirm the information provided. Aspects of the project, undefined or assumed, are highlighted as shown below. We request Dibble and/or the design team verify all information prior to our initiation of field exploration activities.

### Planned Construction

Item	Description
<b>Information Provided</b>	<p>The project information described below is based on the following:</p> <ul style="list-style-type: none"> <li>■ Emailed request for a proposal received from Dibble on October 17, 2023 with a detailed scope of work</li> <li>■ FNL TW B&amp;D Rehab – Project Exhibit.pdf</li> </ul>
<b>Project Description</b>	<p>Taxiways B and D at the Northern Colorado (NoCo) Regional Airport are constructed of asphalt pavement. The project includes the planned rehabilitation of the two taxiways by mill and overlay. Approximately 925 feet of Taxiway B and 1,150 feet of Taxiway D are planned for rehabilitation. We understand the mill and overlay will be non-structural and no changes are planned to the overall pavement thicknesses. We also understand no pavement condition assessment is required for this work. A pavement condition assessment of airport pavements was performed in 2022 by the Colorado Department of Transportation (CDOT). The planned mill and overlay operation is based on the results of CDOT's assessment.</p> <p>We do not anticipate any other improvements (i.e., structures, utilities, etc.) are planned as part of this project.</p>
<b>Grading/ Slopes</b>	<p>Due to the planned method of rehabilitation, we anticipate minor cuts and fills on the order of 1 foot or less (if any) will be required to achieve proposed grades for this project.</p>



Item	Description
<b>Pavements</b>	New taxiway pavement planned as part of this project will consist of flexible asphalt pavement via mill and overlay of existing pavement. We assume Dibble will provide the estimated aircraft fleet mix (including the type and weight of each aircraft and growth rates) to be used in the FAARFIELD pavement analysis of the Pavement Classification Rating (PCR) of the existing taxiway pavement. No additional pavement thickness design services were requested at this time.
<b>Funding Source</b>	We understand the funding for this project will come from Federal Aviation Administration (FAA) moneys.
<b>Design Schedule</b>	We understand authorization to perform the Geotechnical Engineering Services presented in this proposal will very likely be provided in December 2023.

### Site Location and Anticipated Conditions

Item	Description
<b>Project Location Information</b>	The project is located at Northern Colorado (NoCo) Regional Airport at 4900 Earhart Road in Loveland, Colorado. Taxiways B and D are located south of the existing airport terminal area and east of Runway 15-33. Latitude/Longitude (approximate): 40.4458° N, 105.0064° W (see Exhibit D)
<b>Existing Improvements</b>	The site is an existing airport with an asphalt-surfaced runway, taxiways, and taxiway connectors. The site also includes features typical of airports, such as lighted signage, infield drainage areas, parked aircraft, hangar structures, and associated support vehicles, such as fuel trucks, tugs, and luggage transports.
<b>Current Ground Cover</b>	The existing runway, shoulders, taxiways, and taxiway connectors are surfaced with asphalt. The infield drainage areas are vegetated with grass.
<b>Existing Topography</b>	Based on publicly available USGS topographic maps, ground surface elevations along Taxiway B gradually slope down from the east towards the west and along Taxiway D gradually slope down from the south towards the north.
<b>Site Access</b>	We expect the site, and all exploration locations, are accessible with our truck-mounted drilling equipment and support vehicles.



Item	Description
<b>Expected Subsurface Conditions</b>	<p>Our experience near the vicinity of the proposed project and review of geologic maps indicate subsurface conditions will likely consist of medium to high plasticity clay soils with low to high swell potential over claystone bedrock. Bedrock is anticipated at depths of about 11 to 17 feet below existing grades. Groundwater levels are anticipated to be about 10 to 20 feet below existing grades.</p>
<b>Previous Geotechnical Studies</b>	<p>Previously, Terracon has prepared multiple Geotechnical Engineering Reports for the different airport improvement projects within the past 25+ years. Data from these previous studies were considered during preparation of this proposal.</p>

## Exhibit B - Scope of Services

Our proposed Scope of Services consists of field exploration, laboratory testing, and engineering/project delivery. These services are described in the following sections.

### Field Exploration

Based on input provided by Dibble, and our experience with similar projects in the vicinity of the project site, we propose the following field exploration program which is anticipated to be completed with 1 to 1½ days of on-site activities.

Number of Borings	Planned Boring Depth (feet) <sup>1</sup>	Planned Location <sup>2</sup>
2 <sup>3</sup>	10	Along Existing Taxiway B
4 <sup>3</sup>	10	Along Existing Taxiway D

1. Indicates depth below ground surface at the time of our field exploration. Although not anticipated based on the geology in the vicinity of the project site, borings would be terminated at shallower depths if refusal is encountered.
2. The planned boring locations are shown on the attached **Anticipated Exploration Plan**.
3. Terracon will retain the services of a subcontractor to core through the existing taxiway pavement at the planned 6 boring locations with a portable coring machine to provide access to complete the borings into the subgrade below the existing pavement.

**Pre-Exploration Safety Meeting and Site Visit:** We anticipate Dibble and the airport will require all field exploration crew members including drill crew members, field engineers, and coring subcontractor to attend a pre-exploration meeting to discuss safety and planned operations for the day. We anticipate this meeting is planned to be conducted the day when field operations are scheduled. We have included 1 hour in our budget for this meeting.

In addition to the pre-exploration safety meeting and prior to mobilizing our drilling equipment to the project site, we also anticipate a Terracon representative will visit the site one time to meet with representatives of Dibble and the airport (as needed) to coordinate our field work, stake/mark boring locations, assess drill rig access/regress to and from the boring locations, and confirm public and private utilities have been appropriately marked or cleared. If conditions identified during our pre-mobilization site visit that could negatively impact the field exploration, relative to private utilities and/or equipment access, we will contact you to discuss our concerns and options, and additional fees may apply. Any visits to the site beyond 1 will require additional fees.



**Site Access:** Based on available aerial imagery, we expect the planned boring locations are accessible to our truck-mounted drilling equipment and no site clearing, tree or shrub clearing, creating (or regrading) any access roads or drill pads, repair of landscape damage, or location of underground utilities beyond contacting Colorado 811 is required.

Terracon must be granted access to the site by the property owner. Without information to the contrary, we consider acceptance of this proposal as authorization to access the property for conducting field exploration in accordance with the Scope of Services. Our proposed fees do not include time to negotiate and coordinate access with landowners or tenants. Terracon will conduct field services during normal business hours (Monday through Friday between 7:00 am and 5:00 pm). If our exploration must take place over a weekend or at night, please contact us so we can adjust our schedule and fee.

**Boring Layout and Elevations:** We will use handheld GPS equipment to locate borings with an estimated horizontal accuracy of +/-20 feet. Field measurements from existing site features may be utilized. If available, approximate ground surface elevations at the boring locations will be obtained by interpolation from a site specific, surveyed topographic map. We can alternatively coordinate with your Project Surveyor to include locations and surface elevations in project information, if requested.

**Subsurface Exploration Procedures:** After coring through the existing pavement section with a portable coring machine operated by trained personnel, we will advance borings with a truck-mounted drill rig using continuous-flight augers (solid-stem and/or hollow-stem, as necessary, depending on subsurface conditions). Four samples will be obtained in each boring. Soil sampling is typically performed using modified California barrel and split-barrel sampling procedures. We will also obtain bulk samples of subsurface materials from auger cuttings for California Bearing Ratio (CBR) testing. The split-barrel samplers are driven in accordance with the standard penetration test (SPT). For the modified California barrel sampling procedure, a 2½-inch outer diameter, split-barrel sampling spoon is used for sampling. Modified California barrel sampling procedures are similar to standard split-barrel sampling procedures; however, blow counts are typically recorded for 6-inch intervals for a total of 12 inches of penetration. The samples will be placed in appropriate containers, taken to our soil laboratory for testing, and classified by a Geotechnical Engineer.

In addition, we will observe and record groundwater levels during drilling operations. Due to the planned locations of the borings in existing taxiways, no provisions have been made to obtain delayed groundwater measurements.

Our proposed fee assumes a drill rig can advance borings to the proposed depths using the methods described previously. If difficult drilling conditions are encountered, we will notify Dibble as soon as it appears costs will exceed our proposed fee to discuss other drilling alternatives.

Our exploration team will prepare field boring logs as part of standard drilling operations including sampling depths, penetration distances, and other relevant sampling information. Field logs include visual classifications of materials observed during drilling and our interpretation of subsurface conditions between samples.

One Dynamic Cone Penetrometer (DCP) test will be performed at each boring location using a Kessler Dual-Mass or Single-Mass DCP in general accordance with ASTM D6951 Standard Test method for Use of the Dynamic Cone Penetrometer in Shallow Pavement Applications. The results of the DCP testing will be used to supplement our recommendations for the subgrade support characteristics of the taxiway pavements.

**Property Disturbance:** Terracon will take reasonable efforts to reduce damage to the property. However, it should be understood that in the normal course of our work some disturbance could occur including rutting of the ground surface and damage to landscaping, and/or pavements. Rutting on the order of 3 to 4 inches or more may be possible under dry surface conditions. Our drill rigs will advance an approximately 4 to 8-inch diameter vertical borehole at the test locations.

We will backfill borings with cementitious flowable backfill upon completion. Pavements will be patched with non-shrink grout dyed black. Patched concrete will likely not entirely match the existing pavement color or texture. Our services do not include repair of the site beyond backfilling our boreholes and patching existing pavements/surfaces. Excess auger cuttings will be placed in steel drums and disposed of off-site.

## Safety

The geotechnical exploration is proposed to be conducted on the airside of the fence at an active airport during the authorized work hours of about 7 am to 5 pm. We have assumed coordination efforts with the airport and the FAA will be conducted by Dibble to provide the exploration crews safe access to the taxiways. Terracon will abide by all safety and regulatory requirements prior to and during the exploration. We assume Terracon will be notified of any requirements with reasonable notice to accommodate the requirements in the exploration activities. All drilling rigs and support vehicles will be equipped with flashing yellow beacons. The mast of the drill rig will be affixed with an orange and white checkered flag to alert approaching aircraft. We assume a specific maximum drill rig mast height is not required. Terracon and our subcontractors will take reasonable measures to prevent the introduction of foreign object debris (FOD) which may damage aircraft.

Terracon is not aware of environmental concerns at this project site that would create health or safety hazards associated with our exploration program; thus, our Scope considers standard OSHA Level D Personal Protection Equipment (PPE) appropriate. Our Scope of Services does not include environmental site assessment services, but

identification of unusual or unnatural materials observed while drilling will be noted on our logs and discussed in our report.

Exploration efforts require borings into the subsurface; therefore, Terracon will comply with local regulations to request a utility location service through Colorado 811 (CO811). We will consult with the owner/client regarding potential utilities or other unmarked underground hazards. Based upon the results of this consultation, we will consider the need for alternative subsurface exploration methods as the safety of our field crew is a priority.

Due to the presence of existing structures near the planned boring locations, Terracon will hire a private utility locating company to locate private utilities in the vicinity of the proposed borings. However, we note that the private utility company cannot locate private utilities that do not have tracer wires. Utilities that may not include tracer wires include utilities utilizing PVC pipe, such as storm sewers, sanitary sewers, etc. It will be the responsibility of the owner to locate these utilities and provide the locations to Terracon. Terracon will not be responsible for damage to utilities that Colorado 811 and the private utility company could not locate.

The detection of underground utilities is dependent upon the composition and construction of the utility line; some utilities are comprised of non-electrically conductive materials and may not be readily detected. The use of a private utility locate service would not relieve the landowner/client of their responsibilities in identifying private underground utilities.

## Laboratory Testing

The project engineer/geologist will review field data and assign laboratory tests to understand the engineering properties of various soil and rock (if any) strata. Exact types and number of tests cannot be defined until completion of fieldwork, but we anticipate the following laboratory testing may be performed:

- Visual classification
- Water content
- Dry unit weight
- Atterberg limits
- Grain size analysis
- One-dimensional swell
- Unconfined compressive strength
- Chemical analyses – pH, sulfates, chloride ion, sulfide ion, redox, total salts, and electrical resistivity

- Moisture-density relationship (modified Proctor)
- California Bearing Ratio (CBR; 3 point)

Our laboratory testing program includes examination of soil samples and asphalt cores by an engineer. Based on the results of our field and laboratory programs, we will describe and classify soil samples in accordance with the Unified Soil Classification System (USCS).

If bedrock samples are obtained, rock classification will be conducted using locally accepted practices for engineering purposes.

Soil and rock (if any) samples obtained during our fieldwork will be disposed of after laboratory testing is complete unless a specific request is made to temporarily store the samples for a longer period.

## Engineering and Project Delivery

The results of our field and laboratory programs will be evaluated, and a geotechnical engineering report will be prepared under the supervision of a licensed professional engineer. The geotechnical engineering report will provide the following:

- Site and project descriptions
- Boring logs with field and laboratory data
- Asphalt core photographs
- DCP test results
- Stratification based on visual soil (and rock, if any) classification
- Groundwater levels observed during and after the completion of drilling
- Site Location and Exploration Plans
- Subsurface exploration procedures
- Description of subsurface conditions
- Recommendations regarding the Pavement Classification Rating (PCR) as determined in general accordance with the procedures of AC 150/5335-5D using the FAARFIELD pavement software
- Recommendations regarding pavement materials specifications (as needed)

In addition to an emailed report, your project will also be delivered using our **Client Portal**. Upon initiation, we provide you and your design team the necessary link and password to access the website (if not previously registered). Each project includes a calendar to track the schedule, an interactive site map, a listing of team members, access to the project documents as they are uploaded to the site, and a collaboration portal. We welcome the opportunity to have project kickoff conversations with the team

to discuss key elements of the project and demonstrate features of the portal. The typical delivery process includes the following:

- Project Planning – Proposal information, schedule and anticipated exploration plan
- Site Characterization – Findings of the site exploration and laboratory results
- Geotechnical Engineering Report

When our services are completed, we will upload a printable version of our completed Geotechnical Engineering report, including the professional engineer's seal and signature, which documents our services. Previous submittals, collaboration, and the report are maintained in our system. This allows future reference and integration into subsequent aspects of our services as the project goes through final design and construction.

## Additional Services

In addition to the services noted above, the following are often associated with geotechnical engineering services. Fees for services noted above do not include the following:

**Review of Plans and Specifications:** Our geotechnical report and associated verbal and written communications will be used by others in the design team to develop plans and specifications for construction. Review of project plans and specifications is a vital part of our geotechnical engineering services. This consists of review of project plans and specifications related to site preparation and pavement construction. Our review will include a written statement conveying our opinions relating to the plans and specifications' consistency with our geotechnical engineering recommendations.

**Observation and Testing of Pertinent Construction Materials:** Development of our geotechnical engineering recommendations and report relies on an interpretation of soil conditions. Our assessment is based on widely spaced exploration locations and the assumption that construction methods will be performed in a manner sufficient to meet our expectations and consistent with recommendations made at the time the geotechnical engineering report is issued. We should be retained to conduct construction observations, and perform/document associated materials testing, for site preparation and pavement construction. These services allow a more comprehensive understanding of subsurface conditions and necessary documentation of construction to confirm and/or modify (when necessary) the assumptions and recommendations made by our engineers.

**Environmental Assessments:** Our Scope for this project does not include, either specifically or by implication, an environmental assessment of the site intended to identify or quantify potential site contaminants. If the client/owner is concerned about

**Proposal for Geotechnical Engineering Services**

Northern Colorado Regional Airport Taxiway B & D Rehabilitation | Loveland, Colorado

October 27, 2023 | Terracon Proposal No. P20235064



the potential for such conditions, an environmental site assessment should be conducted. We can provide a proposal for an environmental assessment, if desired.



## Exhibit C - Compensation and Project Schedule

### Compensation

Based upon our understanding of the site, the project as summarized in Exhibit A, and our planned Scope of Services described in Exhibit B, our base fee is shown in the following table:

Task	Lump Sum Fee <sup>2</sup>
Project Management	\$2,575
Subsurface Exploration <sup>1</sup>	\$10,435
Laboratory Testing	\$5,320
Analysis and Draft Report Preparation	\$4,220
Final Report and Analysis Preparation	\$1,400
<b>Subtotal:</b> Project Management, Subsurface Exploration, Laboratory Testing, Geotechnical Analysis and Reporting	\$23,950
Private Utility Locating (estimated fee for 4 hours at \$250/hour + 15 percent) <sup>3</sup>	\$1,150
Pavement Coring Services (estimated fee for 10 hours at \$200/hour + 15 percent) <sup>3</sup>	\$2,300
<b>Total Estimated Fees</b>	\$27,400

1. The lump sum fee considers one drill rig mobilization and no unexpected onsite delays. If additional drill rig mobilizations are required, an additional fee of \$1,250 would be invoiced. A drill crew plus drill rig and field engineer standby rate of \$500 per hour would be invoiced for unexpected delays.
2. Proposed fees noted above are effective for 90 days from the date of the proposal. We understand authorization for this work is anticipated to be provided in December 2023.
3. Private utility locating and pavement coring service fees will be invoiced at cost plus 15 percent.

After submittal of the final geotechnical engineering report, any requests for subsequent revisions to the report or updates to the recommendations or pavement analysis will be considered additional consultation services. Additional consultation will be invoiced using current hourly billing rates of the applicable Terracon personnel.



Additional services not part of the estimated base fee include the following:

Additional Services ( see Exhibit B)	Proposed Fee	Initial for Authorization
Plans and Specifications Review (Per Set)	TBD <sup>1</sup>	
Construction Materials Testing Services	TBD <sup>2</sup>	
Environmental Assessment Services	TBD <sup>3</sup>	

1. To Be Determined – A separate proposal for review of project plans and specifications can be provided upon request.
2. To Be Determined – A separate proposal for the observation and testing of pertinent construction materials can be provided upon completion of our plans and specifications review.
3. To Be Determined – A separate proposal for environmental assessment services can be provided upon request.

Our Scope of Services does not include services associated with site clearing, wet ground conditions, tree or shrub clearing, or repair of/damage to existing landscape, or pavements. If such services are desired by the owner/client, we should be notified so we can adjust our Scope of Services.

Unless instructed otherwise, we will submit our invoice(s) to the address shown at the beginning of this proposal. If conditions are encountered that require Scope of Services revisions and/or result in higher fees, we will contact you for approval, prior to initiating services. A supplemental proposal stating the modified Scope of Services as well as its effect on our fee will be prepared. We will not proceed without your authorization.

### Project Schedule

We developed a schedule to complete the Scope of Services based upon our existing availability and understanding of your project schedule. However, our schedule does not account for delays in field exploration beyond our control, such as weather conditions, delays resulting from utility clearance, or lack of permission to access the boring locations. In the event the schedule provided is inconsistent with your needs, please contact us so we may consider alternatives.

Delivery on Client Portal	Schedule <sup>1, 2</sup>
Kickoff Call with Client	About 2 to 3 days after notice to proceed (NTP)
Site Layout	About 4 to 6 days after NTP



Delivery on Client Portal	Schedule <sup>1, 2</sup>
Public Utility Locates Cleared	About 8 to 12 days after NTP
Field Exploration Completed	About 15 to 20 days after NTP <sup>3</sup>
Laboratory Testing Completed	About 10 to 12 days after completion of the field program
Geotechnical Engineering Report	About 15 to 20 days after completion of field program <sup>3</sup>

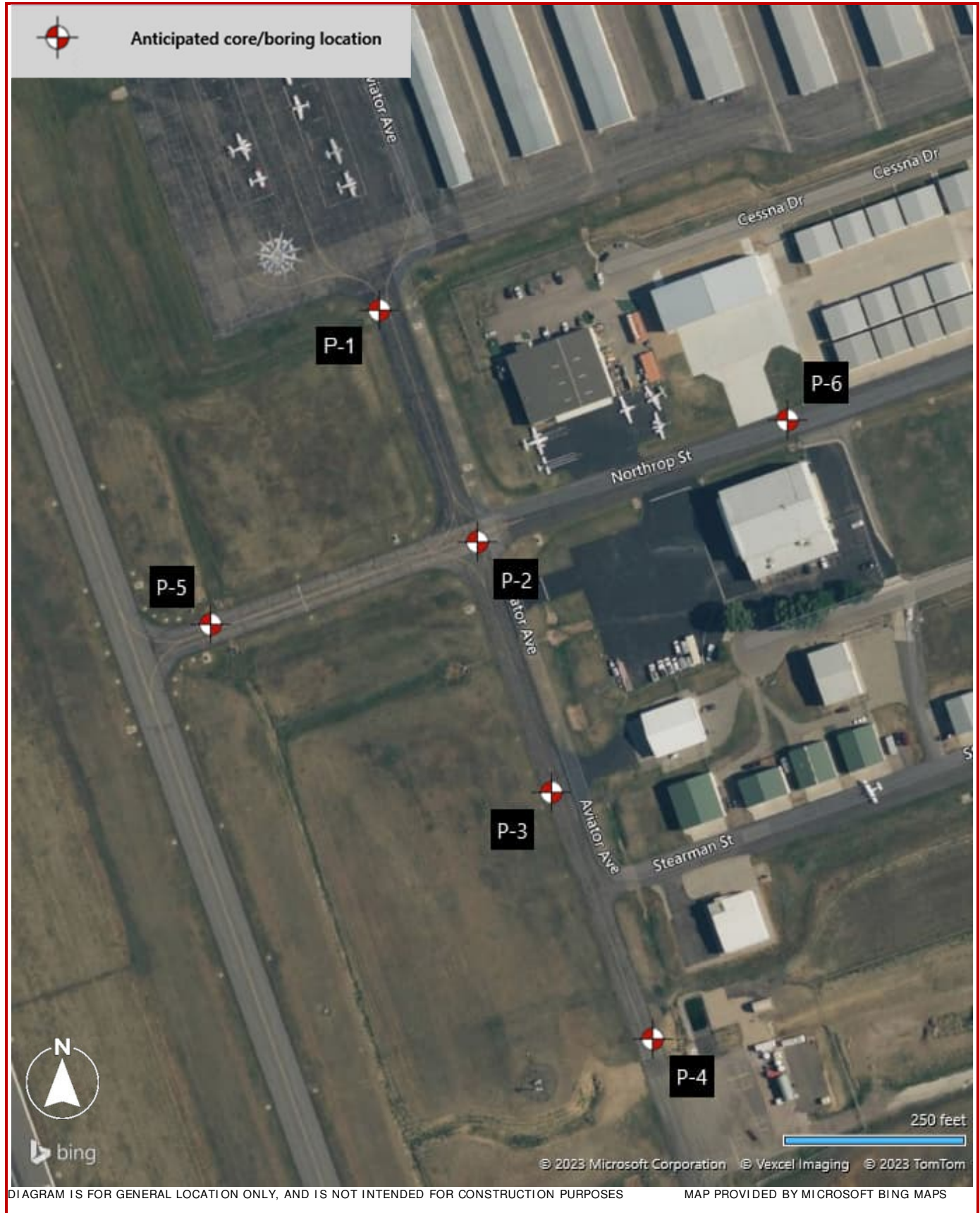
1. Upon receipt of your notice to proceed, we will activate the schedule component on **Client Portal** with specific, anticipated dates for the delivery points noted above as well as other pertinent events.
2. Standard workdays. We will maintain an activities calendar within on **Client Portal**. The schedule will be updated to maintain a current awareness of our plans for delivery.
3. Posting date can be affected by drill rig availability at the time we are given notice to proceed. Any advanced notice of Terracon’s selection to perform this work will allow for the timely scheduling of a drill rig to perform the field work.

### Exhibit D – Site Location





### Exhibit E – Anticipated Exploration Plan



October 27, 2023

Northern Colorado Regional Airport  
4900 Earhart Road  
Loveland, CO 80538

Attention: David Rupel  
Interim Airport Director

RE: ENGINEERING SERVICES PROPOSAL  
City Project Number: TBD  
FAA AIP No. TBD  
Design and Bid Phase Services  
**GA Taxilanes Rehabilitation**

We appreciate the opportunity to provide design and bid services for the *GA Taxilanes Rehabilitation* project at the Northern CO Regional Airport (FNL).

Dibble, as the prime consultant, is proposing to complete the Scope of Work as included in this proposal for as follows:

**A. Design and Bid Phase Services:**

1. Dibble (Civil).....	\$40,903.66
2. NorthStar Engineering and Surveying (Survey).....	\$9,500.00
3. Terracon (Geotechnical).....	<u>\$19,950.00</u>
<b>Subtotal.....</b>	<b>\$70,353.66</b>

Transmitted herewith is our proposed Scope of Work, Project Exhibit, Pre-design Construction Cost Estimate, Fee Summary, Derivation of Fee Proposal, Estimated Manhours matrix, Estimated Direct Costs worksheet, and full subconsultant proposals for your review.

We are very grateful for the opportunity to work with FNL on this project. If you need additional information or have questions, please do not hesitate to contact us.

Sincerely,



Jared Bass, P.E.  
Vice President - Sr. Project Manager







**SCOPE OF WORK**  
**Northern CO Regional Airport**  
**GA Taxilanes Rehabilitation**  
**FAA AIP No. TBD**  
**October 27, 2023**

**Introduction**

Dibble (Engineer) has been requested by the Northern CO Regional Airport (FNL or Airport) to provide design and bid phase services for the *GA Taxilanes Rehabilitation* project. This project will be designed alongside the federally-funded *Taxiways B and D Rehabilitation* project and will be a separate bid schedule with that project.

This project will consist of approximately 7,500 SY mill and overlay of the existing pavement on Taxilanes Northrop and Stearman serving two hangar developments on the southeast side of the airport, (limits identified on the attached Project Exhibit). FNL anticipates funding the entire project, (design, bid, and construction phases services) with local Airport funds. The current estimated total project cost is approximately \$600k.

This project schedule will be consistent with the *Taxiways B and D Rehabilitation* project schedule that consists of a 4-month design phase (December 2023 – March 2024), and bid phase in March-April 2024, with a 120-calendar day bid hold, (notice of award required by end of August 2024).

The following Dibble staff are expected on this project:

- Quality Manager – Ken Snyder
- Senior Project Manager – Jared Bass
- Senior Engineer – Nora Sami
- Project Engineers – Derek Williams and Kurt Dalton
- Senior Designer – Travis Woodman
- Administrative Assistant – Jim Hodge

The following subconsultants are anticipated on this project (their respective proposals are attached):

- Survey: NorthStar Engineering and Surveying
- Geotechnical: Terracon

**Design Phase Services (Lump Sum)**

**1) General Project Management and Pre-Design Tasks:**

- a) **Project Management and Administration:** provide and direct all project management and coordination of the design team and provide coordination between design team members, the Airport, and other interested stakeholders, including the FAA (CSPP and 7460 reviews). Administration tasks such as file coordination and miscellaneous project communications throughout the course of the design phase and project printing and packaging at each submittal level will also be included under this task.
- b) **Project Meetings:** The following are anticipated meetings throughout the design phase and the anticipated staff for each meeting:
  - i. **Internal Design Kick-Off Meeting:** this meeting will be held at the beginning of the project to review the scope of work, design schedule, design budget, and critical design elements that require coordination with various airport stakeholders. The team will also coordinate Geotechnical efforts with FNL staff.
  - ii. **30% Design Review Meeting:** this meeting will be held with FNL and Dibble Team members to review comments received on the 30% design documents and the next critical steps in the process.

- iii. 100% Design Review Meeting: this meeting will be held with FNL and Dibble Team members to review the final submittal items and obtain approval to move into the Bid Phase.

## 2) Design Start-Up and Data Collection:

- a) Existing As-Built Document Research: gather and review all available as-built or record drawings, utility maps, surveys, design plans, studies, reports and miscellaneous projects at the airport, relevant to this project. This item shall also consist of reviewing the existing data available for the current pavement and subsoil conditions. All this information will be coordinated with the surveyors and geotechnical engineers so that any specific data important to the design of this project can be identified and obtained during the field activities.
- b) Private and City Utility Coordination: coordinate with the known private and City utilities that are on the airport (water, wastewater, drainage, and electrical, and Public Works departments), specifically within or adjacent to the project limits. Plans shall be modified to include all received information from those departments on the plans.
- c) Base Map Development and Coordination: develop multiple CAD basemaps including demolition, geometric layouts, paving and grading, and utility infrastructure features collected from the topographic field survey, existing design files, field investigations (pictures and notes), and record drawings. Also included in this item is the setup of all construction plan sheets including survey, pavement sections, pavement marking details, notes, etc. All work will be consistent with FAA and City standards, as applicable.
- d) Survey Coordination and Review: all survey work shall be conducted in compliance with FAA AC 150-5300-16/17/18. Survey efforts shall include documentation of the survey methodology used for data collection and accuracies thereof, along with use of existing Airport Geodetic Control, Primary and Secondary Airport Control benchmarks, (PACS and SACS). The survey shall utilize a robotic total station, GPS, and differential leveling, collecting topographic features along the project areas, (NAD 83 and NAVD 88, US Survey Feet).

All survey data shall meet or exceed the Level 1A horizontal and vertical minimum requirements for submittal to the OE/AAA website.

It is anticipated that the survey will be conducted during the daytime.

- e) Geotechnical and Coordination and Review: investigations in the form of drilling test borings will be conducted in accordance with FAA AC 150/5320-6F. Preparatory work will include coordinating access, conducting site reconnaissance of existing conditions and obtaining utility clearances for field borings. The FAA AC 150/5320-6G *Pavement Design* recommends cores taken every 200-feet for new or full reconstruction of airfield pavements. Given this is a mill and overlay project we will take four (4) cores split between the two taxilanes.

It is anticipated that the geotechnical will be conducted during the daytime.

The geotechnical consultant shall sample four (4) test borings along the existing taxilanes to adequately determine pavement and subsoil conditions and provide samples for laboratory testing. Pavement cores will be cut before digging and patched after completion. Non-shrink grout shall be used to fill the cores. Depth of investigation shall be 10-feet below existing ground surface, or auger refusal, whichever comes first.

Laboratory Analysis: Conduct sufficient laboratory tests to properly classify soils encountered and provide data for engineering design, including:

- Taxilanes Pavement Depths
- Grain Size Analysis
- Plasticity Index
- Moisture Density Relations
- Existing CBR

- Existing PCR
- In-place Density
- Moisture Content

Geotechnical Report: Analyze the data obtained from field and laboratory testing and prepare a draft and final report presenting all data obtained, including individual Log of Test Borings, and Tabulation of Test Data.

### **3) 30% Progress Submittal:**

- a) 30% Design Plans: progress the design to the 30% level. 30% plans are anticipated to include the following:
- Demolition Plan (1 sheet)
  - Geometric Control Plans (2 sheets)
  - Paving and Grading Plans (2 sheets)
  - Pavement Marking Plans and Details (2 Sheets)
  - Geotechnical Boring Location Map and Boring Logs (2 sheets)

Total Sheet Count estimated at the 30% Submittal = 9

- b) 30% Quantities and Engineer's OPCC: based on the 30% construction plans and technical specifications, the Engineer will develop a 30% Opinion of Probable Construction Cost (OPCC). The unit pricing for each line item will be based on recent bid tabulations from comparative projects, locations, materials, and quantities available at that time.
- c) Draft Engineer's Design Memo: The draft engineer's design memo shall provide the design criteria and standards used in developing the construction documents (i.e. plans and technical specifications) and document the work and results of investigative efforts.
- d) Draft Contract Documents and Technical Specification: The draft contract documents and technical specifications will be developed with the federally-funded *Taxiways B and D Rehabilitation* project.
- e) FAA FAARFIELD Existing Pavement Section Analysis: the Engineer will coordinate the data from the geotechnical investigations and provide an analysis of the existing pavement sections and subgrade conditions. The Engineer will also calculate new PCR's for the existing pavement sections and anticipated life cycle.
- f) Draft Construction Safety and Phasing Plan (CSPP): a Draft CSPP will be developed with the federally-funded *Taxiways B and D Rehabilitation* project.
- g) 30% Internal QA/QC Project Review: in addition to the continual quality assurance reviews performed by senior practice staff, Dibble will perform additional quality control reviews prior to each submittal utilizing standardized checking processes by a Senior QC Manager. Each subconsultant will be responsible for their own Quality Control, however, the Senior QC Manager will review all combined project documents for consistency amongst the design elements before each submittal as well.
- h) 30% Plan-In-Hand Site Visit: perform a plans-in-hand site visit to visually compare the plans and survey data to existing field conditions. Design elements will be reviewed and/or confirmed in the field such as utility infrastructure and structures (visible in the field), pavement markings, grades, project limits, drainage conditions, etc. Inconsistencies found during the field investigations (if any) will be corrected on the construction documents.

### **4) 100% Final Documents (Bid Ready):**

- a) 100% Final Plans: sealed, 100% plans shall have all internal and external review comments by the Airport and FAA (CSPP and 7460 reviews) incorporated and addressed. The plans will be prepared for the bidding phase.

- b) Final Contract Documents and Technical Specification: the final bid contract documents and technical specifications will be developed with the federally-funded *Taxiways B and D Rehabilitation* project.
- c) 100% Quantities and Engineer's OPCC: based on the final construction plans and technical specifications, the Engineer shall provide a final bidding schedule in the contract documents and an OPCC based on a unit price basis, reflecting recent bid tabulations from comparative projects, locations, materials, and quantities available at that time.
- d) Final Engineer's Design Memo: The final engineer's design memo shall provide some design criteria and standards used in developing the construction documents (i.e. plans and technical specifications) and document the work and results of investigative efforts.
- e) Final Internal QA/QC Project Review: in addition to the continual quality assurance reviews performed by senior practice staff, Dibble will perform additional quality control reviews prior to each submittal utilizing standardized checking processes by a Senior QC Manager. Each subconsultant will be responsible for their own Quality Control, however, the Senior QC Manager will review all combined project documents for consistency amongst the design elements before each submittal as well.

### **Bid Phase Services (Lump Sum)**

**5) Bid Phase Services**: these efforts will be performed jointly with the federally-funded *Taxiways B and D Rehabilitation* project.

- a) Bid Phase Management and Administration: Provide all project management and coordination of the design team and the FNL and FAA during the 1-month bidding phase.
- b) Pre-Bid Meeting and Site Visit: Attend the pre-bid meeting and assist the Airport in conducting the meeting. The Engineer, upon the direction of the Airport, will provide a brief overview of the project and contract components, identifying important elements within the documents that the Contractors should be particularly familiar with prior to submitting a bid. The Engineer shall also assist the Airport in developing and submitting the pre-bid meeting minutes to all plan holders.

The Engineer will also assist the Airport with the airfield site visit for all interested parties.

- c) Bid Addenda: Pending contractors' reviews, comments, and questions, the Engineer will assist the Airport in developing, issuing any necessary addenda, and notifying all planholders/bidders. Addenda may include revision to construction documents (i.e. plans and technical specifications). It is anticipated that a maximum of two (2) addenda will be issued for this project.
- d) Contractor Questions: The Engineer will coordinate, address, and appropriately respond to all contractor communications and questions during the bidding process. Responses will be submitted through addenda as needed. All communication will follow the Airport regulations and requirements.
- e) Bid Opening Meeting: The Engineer will attend the bid opening meeting to assist the Airport and City in reviewing and organizing the bidding documents from each contractor.
- f) Bid Tabulation and Letter of Recommendation of Award: The Engineer will evaluate each bid submitted for mathematical/calculative errors and for comparative purposes against the Engineer's OPCC and other bids submitted. The Engineer will provide a bid summary letter stating all inconsistencies and results and a recommendation for the lowest responsible, responsive bidder. Included with this effort will be the review and evaluation support of the other contract components such as the DBE subcontractor evaluation.

The Engineer will further assist the Airport and City with review of the bidder's compliance with the other required contract documents included in the bidding documents.

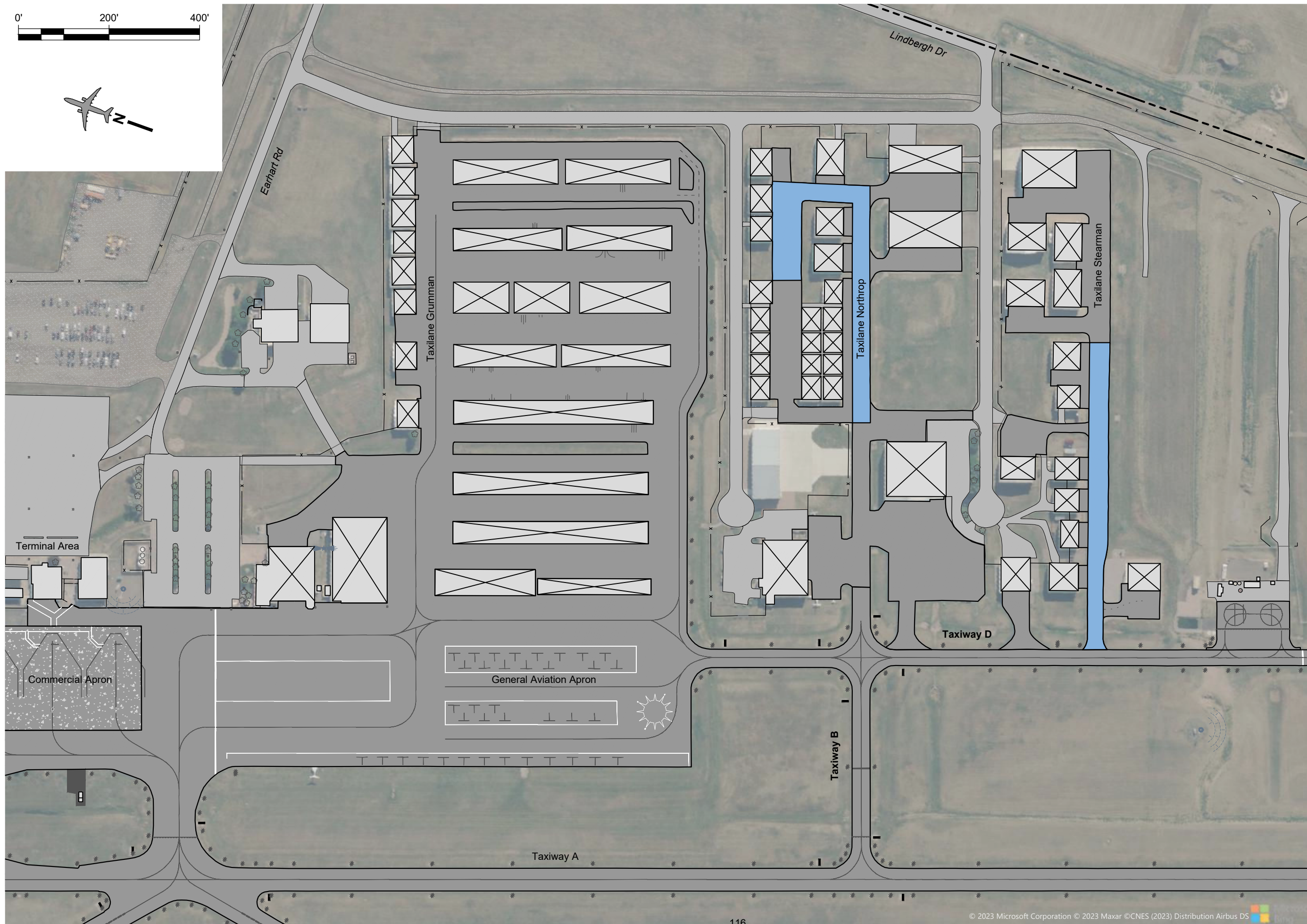
## 6) Miscellaneous and Assumptions:

- a) Design Schedule: this proposal (design and bid phase only) is based on a 4-month design phase (December 2023 – March 2024). The bid phase is anticipated to occur March-April 2024 with a bid hold of 120-calendar days (notice of award required by end of August 2024).
- b) All plans are to be prepared in AutoCAD Civil 3D 2021.
- c) This proposal has been prepared to reflect effort to produce plans and specifications for a single bid package, (i.e. no alternates).
- d) The following number of trips are anticipated by the Project Manager for the Design Phase to cover all the on-site meetings identified in this scope. These efforts will be performed jointly with the federally-funded *Taxiways B and D Rehabilitation* project, therefore the direct costs identified below will not be included in this proposal.
  1. Design Phase – 3 Trips (two staff members each trip):
    - i. Project Kick-Off Meeting
    - ii. 30% Project Review Meeting and Site Visit
    - iii. Final Site Visit and Plan Review
  2. Bid Phase – 2 Trips
    - i. Pre-Bid Meeting
    - ii. Bid Submittal

## 7) Exclusions To This Scope of Work:

- a) Construction Phase Services.
- b) Landscape, Irrigation, and Environmental Design Services.
- c) Structural Engineering, Mechanical, or Architectural Design Services.
- d) Revisions to the most current offsite watershed hydrology model(s).
- e) Drainage design.
- f) FEMA Letters of Map Revision.
- g) Permit-Ready Storm Water Pollution Prevention Plans (SWPPP) (Contractor's Responsibility).
- h) Single bid Phase effort (Bid Phase in early 2024)
- i) Utility Locating or potholing.
- j) Federal activities such as environmental, modifications to standards, FAA meetings, etc.





Legend:

- Existing Facilities
- GA Taxilanes Rehab
- Existing Property Line

Notes:

- N/A

Scale based on a 11"x17" sheet.

**Northern Colorado Rgnl'**  
GA Taxilanes Rehabilitation  
Project Exhibit  
Date: 10.17.23





NORTHERN CO REGIONAL AIRPORT  
GA TAXILANES MILL & OVERLAY  
PRE-DESIGN COST ESTIMATE

LINE No.	DESCRIPTION	APPROX. QTY.	UNIT	UNIT PRICE	AMOUNT
<b>CIVIL</b>					
1	Contractor Quality Control	1	LS	\$15,000.00	\$15,000.00
2	Mobilization	1	LS	\$50,000.00	\$50,000.00
3	Sawcut AC Pavement (Full Depth Depth)	500	LF	\$10.00	\$5,000.00
4	Mill AC Pavement (Full Depth)	7,500	SY	\$10.00	\$75,000.00
5	AC Pavement (4-inch Depth)	188	TON	\$200.00	\$37,500.00
6	Subgrade Prep	7,500	SY	\$25.00	\$187,500.00
7	Tack Coat	7,500	SY	\$4.00	\$30,000.00
8	Pavement Marking	1,500	SF	\$4.00	\$6,000.00
<b>Civil Subtotal</b>					\$406,000.00
<b>Electrical</b>					
9	Electrical	0	LS	\$0.00	\$0.00
<b>Electrical Subtotal</b>					\$0.00
<b>CONSTRUCTION SUBTOTAL</b>					\$406,000.00
Misc & Other Unknown Items					\$75,000.00
<b>CONSTRUCTION TOTAL</b>					<b>\$481,000.00</b>
Engineering					\$75,000.00
Construction Admin					\$50,000.00
Airport Admin					\$0.00
<b>PROJECT TOTAL</b>					<b>\$606,000.00</b>

Firm: Dibble Engineering  
 On-Call Engineering  
 Project: **GA Taxilanes Rehabilitation**  
**Design and Bid Phase Services**  
 Northern Colorado Regional Airport  
 Date: 10/27/2023



NORTHERN COLORADO  
 REGIONAL AIRPORT



Contract Number: TBD  
 Project Number: TBD  
 Task Number: TBD  
 Amendment Number: N/A  
 FAA Number: TBD  
 CDOT Number: TBD

**Summary**

**Dibble**

**Subs**

**A. Design and Bid Phase Services**

	Fee	Type		
1 Dibble.....	\$40,903.66	Lump Sum	\$40,903.66	
2 NorthStar Engineering and Survey (Survey).....	\$9,500.00	Lump Sum		\$9,500.00
3 Terracon (Geotech).....	\$19,950.00	Lump Sum		\$19,950.00
	<b>TOTAL</b>			
<b>Total.....</b>	<b>\$70,353.66</b>		<b>\$40,903.66</b>	<b>\$29,450.00</b>

Firm: Dibble Engineering On-Call Engineering	Contract Number: TBD
Project: <b>GA Taxilanes Rehabilitation Design and Bid Phase Services</b>	Project Number: TBD
Northern Colorado Regional Airport	Task Number: TBD
Date: 10/27/2023	Amendment Number: N/A
	FAA Number: TBD
	CDOT Number: TBD

**DESIGN PHASE SERVICES SUMMARY**

Classification	Total Hours	Billing Rates	Total Costs
1 Principal	0	\$295.00	\$0.00
2 Senior Project Manager	56	\$225.01	\$12,600.56
3 Project Manager	0	\$205.02	\$0.00
4 Senior Engineer	52	\$205.02	\$10,661.04
5 Quality Manager	16	\$295.00	\$4,720.00
6 Project Engineer	36	\$172.01	\$6,192.36
7 Senior Designer	40	\$146.99	\$5,879.60
8 Admin Assistant	10	\$85.01	\$850.10

<b>Totals:</b>	<b>210</b>		<b>\$40,903.66</b>
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**DESIGN PHASE SERVICES DIRECT COSTS**

Item	Cost	Type of Compensation
1 Submittal Printing (Dibble).....	\$0.00	Direct Cost
2 Travel (Dibble).....	\$0.00	Direct Cost
3 Meals (Dibble).....	\$0.00	Direct Cost
Sub-Total for Direct Costs.....		<b>\$0.00</b>

**DESIGN PHASE SERVICES SUBCONSULTANTS**

Firm	Cost	Type of Compensation
1 NorthStar Engineering and Survey (Survey).....	\$9,500.00	Lump Sum
2 Terracon (Geotech).....	\$19,950.00	Lump Sum
Sub-Total for Subconsultants: .....		<b>\$29,450.00</b>

**DESIGN PHASE SERVICES TOTAL FEE**

<b>TOTAL FEE.....</b>	<b>\$70,353.66</b>
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Firm: Dibble Engineering  
 On-Call Engineering  
 Project: **GA Taxilanes Rehabilitation  
 Design and Bid Phase Services**  
 Northern Colorado Regional Airport  
 Date: 10/27/2023

Contract Number: TBD  
 Project Number: TBD  
 Task Number: TBD  
 Amendment Number: N/A  
 FAA Number: TBD  
 CDOT Number: TBD

DESIGN PHASE SERVICES - ESTIMATED MANHOURS									
TASK	PRINCIPAL	SENIOR PROJECT MANAGER	PROJECT MANAGER	SENIOR ENGINEER	QUALITY MANAGER	PROJECT ENGINEER	SENIOR DESIGNER	ADMIN ASSISTANT	TOTAL HOURS BY TASK
<b>1 General Project Management and Pre-Design Tasks</b>									
1a Project Management & Administration		8						8	16
1b Project Meetings		2		2		2	2	2	10
<b>2 Design Start-Up and Data Collection</b>									
2a Existing As-Built Document Research		2		4		4			10
2b Private and City Utility Coordination				2		4			6
2c Base Map Development and Coordination				2		4	6		12
2d Survey Coordination and Review		2		2			2		6
2e Geotechnical Coordination and Review		4		4					8
<b>3 30% Progress Submittal</b>									
3a 30% Design Plans		4		4		4	16		28
3b 30% Quantities and Engineer's OPCC		2		4		4	2		12
3c Draft Engineer's Design Memo		2		4		4	2		12
3d Draft Contract Documents and Technical Specifications		2		2					4
3e FAA FAARFIELD Existing Pavement Section Analysis		6		8					14
3f Draft Construction Safety and Phasing Plan (CSPP)				2		2	2		6
3g 30% Internal QA/QC Project Review					8				8
3h 30% Plan-In-Hand Site Visit		2		2					4
<b>4 100% Final Documents (Bid Ready)</b>									
4a 100% Final Plans		2		4		4	6		16
4b Final Contract Documents and Technical Specifications		2		2					4
4c 100% Quantities and Engineer's OPCC		2		2		2	2		8
4d Final Engineer's Design Memo		2		2		2			6
4e Final Internal QA/QC Project Review					8				8
<b>5 Bid Phase Services</b>									
5a Bid Phase Management and Administration		2							2
5b Pre-Bid Meeting and Site Visit		2							2
5c Bid Addenda		2							2
5d Contractor Questions		2							2
5e Bid Opening Meeting		2							2
5f Bid Tabulation and Letter of Recommendation of Award		2							2
<b>TOTAL HOURS BY CLASSIFICATION</b>	<b>0</b>	<b>56</b>	<b>0</b>	<b>52</b>	<b>16</b>	<b>36</b>	<b>40</b>	<b>10</b>	<b>210</b>



111 E. 5<sup>th</sup> Street  
Pueblo, CO 81003

(719) 544-6823  
(719) 544-6825 Fax

Michael L Cuppy, P.E., P.L.S.

17 015 15  
October 20, 2023

Dibble Engineering  
2696 South Colorado Boulevard, Suite 585  
Denver, CO 80222

Attn: Jared Bass, Senior Project Manager

Via: email: <jared.bass@dibblecorp.com>

Re: Loveland FNL GA Taxiland Rehab Surveying Support services.

We are pleased to present this "Work Authorization Agreement" for performing Professional Engineering and Surveying services with regard to the above referenced project. Please find a list below of the services that are to be provided:

**TASK A: ASBUILT AREAS OF GA Taxilane, THE LIMITS OF WHICH ARE DESCRIBED BELOW AND ON EXHIBIT PROVIDED BY DIBBLE INCLUDING:**

1. All survey work to be executed in compliance with FAA AC 150-5300-16/17/18, documenting the survey methodology used for data collection and accuracies thereof (Pictures and Notes), along with use of existing Airport Geodetic Control, PACS and SACS. The survey shall utilize a robotic total station, GPS, and differential leveling, collecting topographic features along the project areas based on NAD 83 Horizontal coordinates and NAVD 88 vertical datum. Coordinates shall be area ground modified State Plane, Colorado South Zone. The survey shall meet the vertical and horizontal tolerances of a Level 1A survey.
2. Edge of asphalt in highlighted area
3. Taxiway pavement 50' grid, and centerline
4. All electrical lighting, signage, and handholds/manholes
5. All pavement markings
6. Locations of soil samples/cores on runway pavement, if applicable
7. Final deliverable: preconstruction "Asbuilt" basemap in AutoCAD 2021 or later format.

**TOTAL TASK A: (lump sum) ..... \$7900.00**

**TASK B: Survey Control Sheet, to include:**

1. Prepare Survey Control Sheet and update for 2 submittals per FAA criteria and specifications.
2. Survey Control sheet to meet all requirements outline in Task A item 1.

**TOTAL TASK B: (lump sum) ..... \$1,600.00**

**THE FOLLOWING ITEMS ARE NOT INCLUDED IN THIS PROPOSAL (A formal Proposal for any of these services can and will be prepared at Client request):**

1. Asbuilt survey of any item not specifically listed above.

**General Conditions**

NorthStar Engineering and Surveying, Inc. ("NorthStar") will perform the services listed above, subject to the conditions listed below. Our fees for providing these services will be as indicated above. Any additional services required to complete the project will be billed per our current Time and Materials rates. Any additional work required by NorthStar or by the Client to complete the project shall be acknowledged by the Client and made a portion of the Work Authorization Agreement ("Agreement"). This Agreement may not be amended, nor any obligations hereunder waived, except by written agreement signed by all parties to the Agreement.

**NorthStar Services**

NorthStar will perform its services in a manner consistent with the level of care and skill ordinarily exercised by other design professionals in the same geographic area as the underlying project.

NorthStar does not have control over, and is not responsible for, construction means, methods, techniques, sequences, or procedures.

Construction observation services are not a part of this Agreement unless specifically identified above. Construction staking or survey control staking is not construction observation, nor is it an inspection, ratification, or approval of prior work performed by others, including but not limited to, design and/or construction professionals.

Estimates of cost are NorthStar's opinions of probable cost, based on NorthStar's experience and familiarity with the construction industry. NorthStar cannot guarantee that bids or final construction costs will not vary from NorthStar's estimate or opinion.

**Payment**

Any permit fees or title company fees are the responsibility of the client and are not included in this Agreement. Also, all direct reimbursable expenses incurred in performance of this project will be invoiced at cost plus ten percent.

NorthStar's policy is to invoice the address listed above by the 1st day of every month. Payment is due on receipt of invoice and to be received no later than the 25th day of that month. Client shall advise if a different invoice date is required.



The Client agrees that the balance stated on the invoice from NorthStar to Client is correct, conclusive, and binding on the Client, unless the Client notifies NorthStar of objections or inaccuracies within 30 days of receipt of the invoice.

Payment not received by NorthStar by the 25<sup>th</sup> day of the month will cause all work to stop on the project, and an assessment of interest at the rate of two percent monthly.

Client agrees to pay NorthStar's costs of collection, including reasonable attorney's fees, for any amounts that remain unpaid 90 days after billing.

In the event the Client wishes to terminate the services of NorthStar, the Client shall pay NorthStar Time and Materials rates up to the date of termination.

#### Limitation of Liability/Damages

NorthStar's total liability to Client, for any and all injuries, claims, losses, expenses, or damages arising out of this Agreement shall not exceed the amount of the fee paid by Client to NorthStar. NorthStar's tender of payment in this amount shall constitute a fulfillment and complete satisfaction of any and all of NorthStar's liabilities, obligations, representations or warranties related to or arising from this Agreement.

NorthStar and Client mutually agree to waive all claims of consequential damages arising from claims, disputes, or other matters related to this Agreement.

#### Statute of Limitations

The statute of limitations for any claims arising from NorthStar's work shall begin to run as of the date that NorthStar submits an invoice for 100% of the fee listed above.

#### Indemnity

The Client shall defend, indemnify and hold harmless NorthStar and its personnel from and against any and all claims, damages, losses and expenses, including reasonable attorney's fees, arising out of or resulting from the performance of NorthStar's work, provided that any such claim, damage, loss, or expense is caused in whole or in part by the negligent act or omission of the Client, or anyone directly or indirectly retained or employed by the Client (except NorthStar). This indemnification includes, but is not limited to, claims or losses due to the presence of hazardous materials. This indemnification includes, but is not limited to, claims alleged to have arisen from the contractor's performance or the alleged failure of the contractor's work to conform to the design intent and the contract or project documents.

#### Instruments of Service

NorthStar provides services, the scope of which are set forth above, not a product. Sketches, designs, computations, survey notes, reports, specifications, and other original documents of any sort are instruments of that service; they are the written depiction of NorthStar's intellectual process. NorthStar retains sole and exclusive ownership of these documents, unless the documents are required to be filed for public record by a governmental agency having proper jurisdiction.

Any use or reuse of original or altered physical documents or electronic files or CADD adaptation of NorthStar plans or documents for any use other than the specific purpose intended by NorthStar, without the prior written permission of NorthStar, is prohibited. The Client agrees to indemnify, defend, and hold harmless NorthStar from any and all claims, suits,

or liability arising from the unauthorized use of NorthStar's work by person or entities not party to this Agreement.

Additional Provisions

Client agrees that NorthStar shall be entitled to recover all costs incurred in enforcing any provision of this Agreement, including court costs and attorney's fees.

This Agreement is not intended to be, and shall be construed to be, intended for the benefit of any person or entity that is not a signatory party to this Agreement. No person or entity, other than signatory parties, will have any right or cause of action under this Agreement.

This Agreement shall be governed by the laws of the State of Colorado. Venue for any litigation arising from this Agreement shall be in the Pueblo County District Court.

With the exception of actions by NorthStar to recover amounts due and owing, all other disputes or claims arising from this Agreement shall be submitted first to non-binding mediation, and then to binding arbitration if mediation is unsuccessful. Arbitration shall be conducted by a single arbitrator, mutually chosen by the parties. If the parties cannot agree on an arbitrator, a party seeking enforcement of this arbitration agreement may request, as part of a petition for enforcement, that a Pueblo County District Court judge appoint an arbitrator.

If any clause or provision of this Agreement is determined to be illegal, invalid, or unenforceable by a court of competent jurisdiction, the remainder of this Agreement shall not be affected thereby and shall remain in full force and effect.

Please review this Work Authorization Agreement carefully, for it represents a binding contract when signed. If this Agreement is acceptable, please have a duly authorized representative sign on the space provided below and return the original to us as notice of authorization to proceed. We appreciate the opportunity to be of service to you.

NorthStar Engineering and Surveying, Inc.



Michael L. Cuppy, P.E., P.L.S.  
President/Principal

Accepted By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

111 East 5<sup>th</sup>  
Street



(719) 544-6823  
Fax (719) 544-6825

Michael L. Cuppy, P.E., P.L.S.

***SCHEDULE OF STANDARD TIME AND MATERIAL RATES***  
(January 1, 2023 to January 1, 2024)

**OFFICE ENGINEERING AND PLANNING:**

Principal .....	\$180.00/hr.
Registered Professional Engineer (Project Manager) .....	\$150.00/hr.
Licensed Land Surveyor (Project Manager). .....	\$140.00/hr.
Project Engineer (EI)/Surveyor (SI) .....	\$125.00/hr.
Engineer/Planner .....	\$110.00/hr.
Designer / GIS .....	\$ 100.00/hr.
AutoCAD Technician .....	\$ 90.00/hr.
Accounting .....	\$ 70.00/hr.
Clerical .....	\$ 50.00/hr.
Messenger .....	\$ 35.00/hr.

**FIELD ENGINEERING AND SURVEYING:**

3-Man Survey Crew .....	\$175.00/hr.
Overtime Rate .....	\$200.00/hr.
2-Man Survey Crew .....	\$160.00/hr.
Overtime Rate .....	\$180.00/hr.
1-Man Survey Crew .....	\$125.00/hr.
Overtime Rate .....	\$145.00/hr.
Construction Manager .....	\$130.00/hr.
Construction Inspector .....	\$115.00/hr.
Survey Crew – Out of Town Drive Time .....	\$120.00/hr.
GPS Equipment: Standard Survey Crew Rate Plus .....	\$ 50.00/hr.

**REIMBURSABLE RATES:**

Blueline Prints .....	\$ 0.70/sq.ft.
Mylar Prints .....	\$ 2.85/sq.ft.
Color Bond .....	\$ 2.20/sq.ft.
Xerox Copies .....	\$ 0.20/ea.
Color Copies (8.5x11) .....	\$ 2.25/ea.
Large Xerox Copies .....	\$ 2.20/ea.

**SUBCONTRACTED EXPENSES AND SPECIAL EQUIPMENT:**

Mileage – Trucks and Autos .....	\$ 0.60/mile
Direct Costs plus 15%	

**NOTE:** In the event Principals are involved for an extended period on a project, rates charged will be commensurate with work performed.



1901 Sharp Point Drive, Suite C  
 Fort Collins, Colorado 80525  
 P (970) 484-0359  
 F (970) 484-0454  
[Terracon.com](http://Terracon.com)

October 27, 2023

Dibble & Associates Consulting Engineers, Inc.  
 2696 South Colorado Boulevard, Suite 585  
 Denver, Colorado 80222

**Attn:** Mr. Jared Bass, P.E.  
 P: (303) 872-5756  
 E: [jared.bass@dibblecorp.com](mailto:jared.bass@dibblecorp.com)

**RE:** Proposal for Geotechnical Engineering Services  
 Northern Colorado Regional Airport GA Taxilanes Rehabilitation  
 4900 Earhart Road  
 Loveland, Colorado  
 Terracon Proposal No. P20235066

Dear Mr. Bass:

We appreciate the opportunity to submit this proposal to Dibble & Associates Consulting Engineers, Inc. (Dibble) to provide Geotechnical Engineering services for the project referenced above. The following are exhibits to this proposal.

- |           |  |
|-----------|--|
| Exhibit A | Project Understanding                      |
| Exhibit B | Scope of Services                          |
| Exhibit C | Compensation and Project Schedule          |
| Exhibit D | Site Location and Nearby Geotechnical Data |
| Exhibit E | Anticipated Exploration Plan               |

Our estimated base fee to perform the Scope of Services described in this proposal is \$19,950. Fees associated with private utility locating and pavement coring services are included in our estimated base fee provided above. However, they will be invoiced at cost plus 15 percent so our proposed fee may change slightly. Exhibit C includes details of our fees and consideration of additional services as well as a general breakdown of our anticipated schedule.

**Proposal for Geotechnical Engineering Services**

Northern Colorado Regional Airport GA Taxiways Rehabilitation | Loveland, Colorado  
October 27, 2023 | Terracon Proposal No. P20235066



Your authorization for Terracon Consultants, Inc. (Terracon) to proceed in accordance with this proposal can be issued by providing us with an Independent Consultant Agreement form for our review. We anticipate the agreement can be executed once Terracon and Dibble have agreed to mutually acceptable contract terms and conditions.

Sincerely,

**Terracon**

A handwritten signature in blue ink that reads 'Alec N. Strassburg'.

Alec N. Strassburg, P.E.  
Project Engineer

A handwritten signature in blue ink that reads 'Eric D. Bernhardt'.

Eric D. Bernhardt, P.E.  
Regional Geotechnical Manager



## Exhibit A – Project Understanding

Our Scope of Services is based on our understanding of the project as described by Dibble and the anticipated conditions as described below. We have not visited the project site to confirm the information provided. Aspects of the project, undefined or assumed, are highlighted as shown below. We request Dibble and/or the design team verify all information prior to our initiation of field exploration activities.

### Planned Construction

Item	Description
<b>Information Provided</b>	<p>The project information described below is based on the following:</p> <ul style="list-style-type: none"> <li>■ Emailed request for a proposal received from Dibble on October 20, 2023 with a detailed scope of work</li> <li>■ FNL GA Taxilanes Rehab – Project Exhibit 10.17.23.pdf</li> <li>■ Email communication with Dibble</li> </ul>
<b>Project Description</b>	<p>The GA taxilanes at the Northern Colorado (NoCo) Regional Airport are constructed of asphalt pavement. This project includes the planned rehabilitation of the taxilanes by mill and overlay. Approximately 860 feet of Taxilane Northrup and 680 feet of Taxilane Stearnman are planned for rehabilitation. We understand the mill and overlay will be non-structural and no changes are planned to the overall pavement thicknesses. We also understand no pavement condition assessment is required for this work. A pavement condition assessment of airport pavements was performed in 2022 by the Colorado Department of Transportation (CDOT). The planned mill and overlay operation is based on the results of CDOT’s assessment.</p> <p>We do not anticipate any other improvements (i.e., structures, utilities, etc.) are planned as part of this project.</p>
<b>Grading/ Slopes</b>	<p>Due to the planned method of rehabilitation, we anticipate minor cuts and fills on the order of 1 foot or less (if any) will be required to achieve proposed grades for this project.</p>





Item	Description
<b>Pavements</b>	New taxilane pavement planned as part of this project will consist of flexible asphalt pavement via mill and overlay of existing pavement. We assume Dibble will provide the estimated aircraft fleet mix (including the type and weight of each aircraft and growth rates) to be used in the FAARFIELD pavement analysis of the Pavement Classification Rating (PCR) of the existing taxilane pavement. No additional pavement thickness design services were requested at this time.
<b>Funding Source</b>	We understand the funding for this project will come from the NoCo Regional Airport moneys.
<b>Design Schedule</b>	We understand authorization to perform the Geotechnical Engineering Services presented in this proposal will very likely be provided in December 2023.

### Site Location and Anticipated Conditions

Item	Description
<b>Project Location Information</b>	The project is located at Northern Colorado (NoCo) Regional Airport at 4900 Earhart Road in Loveland, Colorado. Taxilanes Northrop and Stearnman are located south of the existing airport terminal area and east of Runway 15-33. Latitude/Longitude (approximate): 40.4447° N, 105.0048° W (see Exhibit D)
<b>Existing Improvements</b>	The site is an existing airport with an asphalt-surfaced runway, taxiways, taxiway connectors, and taxilanes. The site also includes features typical of airports, such as lighted signage, infield drainage areas, parked aircraft, hangar structures, and associated support vehicles, such as fuel trucks, tugs, and luggage transports.
<b>Current Ground Cover</b>	The existing runway, shoulders, taxiways, taxiway connectors, and taxilanes are surfaced with asphalt. The infield drainage areas are vegetated with grass.
<b>Existing Topography</b>	Based on publicly available USGS topographic maps, ground surface elevations in the area of the taxilanes gradually slope down from the southeast towards the northwest.
<b>Site Access</b>	We expect the site, and all exploration locations, are accessible with our truck-mounted drilling equipment and support vehicles.



Item	Description
<b>Expected Subsurface Conditions</b>	<p>Our experience near the vicinity of the proposed project and review of geologic maps indicate subsurface conditions will likely consist of medium to high plasticity clay soils with low to high swell potential over claystone bedrock. Bedrock is anticipated at depths of about 11 to 17 feet below existing grades. Groundwater levels are anticipated to be about 10 to 20 feet below existing grades.</p>
<b>Previous Geotechnical Studies</b>	<p>Previously, Terracon has prepared multiple Geotechnical Engineering Reports for the different airport improvement projects within the past 25+ years. Data from these previous studies were considered during preparation of this proposal.</p>

## Exhibit B - Scope of Services

Our proposed Scope of Services consists of field exploration, laboratory testing, and engineering/project delivery. These services are described in the following sections.

### Field Exploration

Based on input provided by Dibble, and our experience with similar projects in the vicinity of the project site, we propose the following field exploration program which is anticipated to be completed with 1 day of on-site activities.

Number of Borings	Planned Boring Depth (feet) <sup>1</sup>	Planned Location <sup>2</sup>
2 <sup>3</sup>	10	Along Existing Taxilane Northrop
2 <sup>3</sup>	10	Along Existing Taxilane Stearnman

1. Indicates depth below ground surface at the time of our field exploration. Although not anticipated based on the geology in the vicinity of the project site, borings would be terminated at shallower depths if refusal is encountered.
2. The planned boring locations are shown on the attached **Anticipated Exploration Plan**.
3. Terracon will retain the services of a subcontractor to core through the existing taxilane pavement at the planned 4 boring locations with a portable coring machine to provide access to complete the borings into the subgrade below the existing pavement.

**Pre-Exploration Safety Meeting and Site Visit:** We anticipate Dibble and the airport will require all field exploration crew members including drill crew members, field engineers, and coring subcontractors to attend a pre-exploration meeting to discuss safety and planned operations for the day. We anticipate this meeting is planned to be conducted the day before or the day when field operations are scheduled.

In addition to the pre-exploration safety meeting and prior to mobilizing our drilling equipment to the project site, we also anticipate a Terracon representative will visit the site one time to meet with representatives of Dibble and the airport (as needed) to coordinate our field work, stake/mark boring locations, assess drill rig access/regress to and from the boring locations, and confirm public and private utilities have been appropriately marked or cleared. If conditions identified during our pre-mobilization site visit that could negatively impact the field exploration, relative to private utilities and/or

equipment access, we will contact you to discuss our concerns and options, and additional fees may apply. Any visits to the site beyond 1 will require additional fees.

**Site Access:** Based on available aerial imagery, we expect the planned boring locations are accessible to our truck-mounted drilling equipment and no site clearing, tree or shrub clearing, creating (or regrading) any access roads or drill pads, repair of landscape damage, or location of underground utilities beyond contacting Colorado 811 is required.

Terracon must be granted access to the site by the property owner. Without information to the contrary, we consider acceptance of this proposal as authorization to access the property for conducting field exploration in accordance with the Scope of Services. Our proposed fees do not include time to negotiate and coordinate access with landowners or tenants. Terracon will conduct field services during normal business hours (Monday through Friday between 7:00 am and 5:00 pm). If our exploration must take place over a weekend or at night, please contact us so we can adjust our schedule and fee.

**Boring Layout and Elevations:** We will use handheld GPS equipment to locate borings with an estimated horizontal accuracy of +/-20 feet. Field measurements from existing site features may be utilized. If available, approximate ground surface elevations at the boring locations will be obtained by interpolation from a site specific, surveyed topographic map. We can alternatively coordinate with your Project Surveyor to include locations and surface elevations in project information, if requested.

**Subsurface Exploration Procedures:** After coring through the existing pavement section with a portable coring machine operated by trained personnel, we will advance borings with a truck-mounted drill rig using continuous-flight augers (solid-stem and/or hollow-stem, as necessary, depending on subsurface conditions). Four samples will be obtained in each boring. Soil sampling is typically performed using modified California barrel and split-barrel sampling procedures. We will also obtain bulk samples of subsurface materials from auger cuttings for California Bearing Ratio (CBR) testing. The split-barrel samplers are driven in accordance with the standard penetration test (SPT). For the modified California barrel sampling procedure, a 2½-inch outer diameter, split-barrel sampling spoon is used for sampling. Modified California barrel sampling procedures are similar to standard split-barrel sampling procedures; however, blow counts are typically recorded for 6-inch intervals for a total of 12 inches of penetration. The samples will be placed in appropriate containers, taken to our soil laboratory for testing, and classified by a Geotechnical Engineer.

In addition, we will observe and record groundwater levels during drilling operations. Due to the planned locations of the borings in existing taxilanes, no provisions have been made to obtain delayed groundwater measurements.

Our proposed fee assumes a drill rig can advance borings to the proposed depths using the methods described previously. If difficult drilling conditions are encountered, we will

notify Dibble as soon as it appears costs will exceed our proposed fee to discuss other drilling alternatives.

Our exploration team will prepare field boring logs as part of standard drilling operations including sampling depths, penetration distances, and other relevant sampling information. Field logs include visual classifications of materials observed during drilling and our interpretation of subsurface conditions between samples.

One Dynamic Cone Penetrometer (DCP) test will be performed at each boring location using a Kessler Dual-Mass or Single-Mass DCP in general accordance with ASTM D6951 Standard Test method for Use of the Dynamic Cone Penetrometer in Shallow Pavement Applications. The results of the DCP testing will be used to supplement our recommendations for the subgrade support characteristics of the taxilane pavements.

**Property Disturbance:** Terracon will take reasonable efforts to reduce damage to the property. However, it should be understood that in the normal course of our work some disturbance could occur including rutting of the ground surface and damage to landscaping, and/or pavements. Rutting on the order of 3 to 4 inches or more may be possible under dry surface conditions. Our drill rigs will advance an approximately 4 to 8-inch diameter vertical borehole at the test locations.

We will backfill borings with cementitious flowable backfill upon completion. Pavements will be patched with non-shrink grout dyed black. Patched concrete will very likely not entirely match the existing pavement color or texture. Our services do not include repair of the site beyond backfilling our boreholes and patching existing pavements/surfaces. Excess auger cuttings will be placed in steel drums and disposed of off-site.

## Safety

The geotechnical exploration is proposed to be conducted on the airside of the fence at an active airport during the authorized work hours of about 7 am to 5 pm. We have assumed coordination efforts with the airport and the FAA will be conducted by Dibble to provide the exploration crews safe access to the taxilanes. Terracon will abide by all safety and regulatory requirements prior to and during the exploration. We assume Terracon will be notified of any requirements with reasonable notice to accommodate the requirements in the exploration activities. All drilling rigs and support vehicles will be equipped with flashing yellow beacons. The mast of the drill rig will be affixed with an orange and white checkered flag to alert approaching aircraft. We assume a specific maximum drill rig mast height is not required. Terracon and our subcontractors will take reasonable measures to prevent the introduction of foreign object debris (FOD) which may damage aircraft.

Terracon is not aware of environmental concerns at this project site that would create health or safety hazards associated with our exploration program; thus, our Scope considers standard OSHA Level D Personal Protection Equipment (PPE) appropriate. Our Scope of Services does not include environmental site assessment services, but identification of unusual or unnatural materials observed while drilling will be noted on our logs and discussed in our report.

Exploration efforts require borings into the subsurface; therefore, Terracon will comply with local regulations to request a utility location service through Colorado 811 (CO811). We will consult with the owner/client regarding potential utilities or other unmarked underground hazards. Based upon the results of this consultation, we will consider the need for alternative subsurface exploration methods as the safety of our field crew is a priority.

Due to the presence of existing structures near the planned boring locations, Terracon will hire a private utility locating company to locate private utilities in the vicinity of the proposed borings. However, we note that the private utility company cannot locate private utilities that do not have tracer wires. Utilities that may not include tracer wires include utilities utilizing PVC pipe, such as storm sewers, sanitary sewers, etc. It will be the responsibility of the owner to locate these utilities and provide the locations to Terracon. Terracon will not be responsible for damage to utilities that Colorado 811 and the private utility company could not locate.

The detection of underground utilities is dependent upon the composition and construction of the utility line; some utilities are comprised of non-electrically conductive materials and may not be readily detected. The use of a private utility locate service would not relieve the landowner/client of their responsibilities in identifying private underground utilities.

## Laboratory Testing

The project engineer/geologist will review field data and assign laboratory tests to understand the engineering properties of various soil and rock (if any) strata. Exact types and number of tests cannot be defined until completion of fieldwork, but we anticipate the following laboratory testing may be performed:

- Visual classification
- Water content
- Dry unit weight
- Atterberg limits
- Grain size analysis
- One-dimensional swell



- Unconfined compressive strength
- Chemical analyses – pH, sulfates, chloride ion, sulfide ion, redox, total salts, and electrical resistivity
- Moisture-density relationship (modified Proctor)
- California Bearing Ratio (CBR)

Our laboratory testing program includes examination of soil samples and asphalt cores by an engineer. Based on the results of our field and laboratory programs, we will describe and classify soil samples in accordance with the Unified Soil Classification System (USCS).

If bedrock samples are obtained, rock classification will be conducted using locally accepted practices for engineering purposes.

Soil and rock (if any) samples obtained during our fieldwork will be disposed of after laboratory testing is complete unless a specific request is made to temporarily store the samples for a longer period.

## Engineering and Project Delivery

The results of our field and laboratory programs will be evaluated, and a geotechnical engineering report will be prepared under the supervision of a licensed professional engineer. The geotechnical engineering report will provide the following:

- Site and project descriptions
- Boring logs with field and laboratory data
- Asphalt core photographs
- DCP test results
- Stratification based on visual soil (and rock, if any) classification
- Groundwater levels observed during and after the completion of drilling
- Site Location and Exploration Plans
- Subsurface exploration procedures
- Description of subsurface conditions
- Recommendations regarding the Pavement Classification Rating (PCR) as determined in general accordance with the procedures of AC 150/5335-5D using the FAARFIELD pavement software
- Recommendations regarding pavement materials specifications (as needed)

In addition to an emailed report, your project will also be delivered using our **Client Portal**. Upon initiation, we provide you and your design team the necessary link and password to access the website (if not previously registered). Each project includes a

calendar to track the schedule, an interactive site map, a listing of team members, access to the project documents as they are uploaded to the site, and a collaboration portal. We welcome the opportunity to have project kickoff conversations with the team to discuss key elements of the project and demonstrate features of the portal. The typical delivery process includes the following:

- Project Planning – Proposal information, schedule and anticipated exploration plan
- Site Characterization – Findings of the site exploration and laboratory results
- Geotechnical Engineering Report

When our services are completed, we will upload a printable version of our completed Geotechnical Engineering report, including the professional engineer's seal and signature, which documents our services. Previous submittals, collaboration, and the report are maintained in our system. This allows future reference and integration into subsequent aspects of our services as the project goes through final design and construction.

### Additional Services

In addition to the services noted above, the following are often associated with geotechnical engineering services. Fees for services noted above do not include the following:

**Review of Plans and Specifications:** Our geotechnical report and associated verbal and written communications will be used by others in the design team to develop plans and specifications for construction. Review of project plans and specifications is a vital part of our geotechnical engineering services. This consists of review of project plans and specifications related to site preparation and pavement construction. Our review will include a written statement conveying our opinions relating to the plans and specifications' consistency with our geotechnical engineering recommendations.

**Observation and Testing of Pertinent Construction Materials:** Development of our geotechnical engineering recommendations and report relies on an interpretation of soil conditions. Our assessment is based on widely spaced exploration locations and the assumption that construction methods will be performed in a manner sufficient to meet our expectations and consistent with recommendations made at the time the geotechnical engineering report is issued. We should be retained to conduct construction observations, and perform/document associated materials testing, for site preparation and pavement construction. These services allow a more comprehensive understanding of subsurface conditions and necessary documentation of construction to confirm and/or modify (when necessary) the assumptions and recommendations made by our engineers.



**Environmental Assessments:** Our Scope for this project does not include, either specifically or by implication, an environmental assessment of the site intended to identify or quantify potential site contaminants. If the client/owner is concerned about the potential for such conditions, an environmental site assessment should be conducted. We can provide a proposal for an environmental assessment, if desired.

## Exhibit C - Compensation and Project Schedule

### Compensation

Based upon our understanding of the site, the project as summarized in Exhibit A, and our planned Scope of Services described in Exhibit B, our base fee is shown in the following table:

Task	Lump Sum Fee <sup>2</sup>
Project Management	\$1,845
Subsurface Exploration <sup>1</sup>	\$6,590
Laboratory Testing	\$3,725
Analysis and Draft Report Preparation	\$3,940
Final Report and Analysis Preparation	\$1,375
<b>Subtotal:</b> Project Management, Subsurface Exploration, Laboratory Testing, Geotechnical Analysis and Reporting	\$17,475
Private Utility Locating (estimated fee for 3 hours at \$250/hour + 15 percent) <sup>3</sup>	\$865
Pavement Coring Services (estimated fee for 7 hours at \$200/hour + 15 percent) <sup>3</sup>	\$1,610
<b>Total Estimated Fees</b>	\$19,950

1. The lump sum fee considers one drill rig mobilization and no unexpected onsite delays. If additional drill rig mobilizations are required, an additional fee of \$1,250 would be invoiced. A drill crew plus drill rig and field engineer standby rate of \$500 per hour would be invoiced for unexpected delays.
2. Proposed fees noted above are effective for 90 days from the date of the proposal. We understand authorization for this work is anticipated to be provided in December 2023.
3. Private utility locating and pavement coring service fees will be invoiced at cost plus 15 percent.

After submittal of the final geotechnical engineering report, any requests for subsequent revisions to the report or updates to the recommendations or pavement analysis will be considered additional consultation services. Additional consultation will be invoiced using current hourly billing rates of the applicable Terracon personnel.



Additional services not part of the estimated base fee include the following:

Additional Services ( see Exhibit B)	Proposed Fee	Initial for Authorization
Plans and Specifications Review (Per Set)	TBD <sup>1</sup>	
Construction Materials Testing Services	TBD <sup>2</sup>	
Environmental Assessment Services	TBD <sup>3</sup>	

1. To Be Determined – A separate proposal for review of project plans and specifications can be provided upon request.
2. To Be Determined – A separate proposal for the observation and testing of pertinent construction materials can be provided upon completion of our plans and specifications review.
3. To Be Determined – A separate proposal for environmental assessment services can be provided upon request.

Our Scope of Services does not include services associated with site clearing, wet ground conditions, tree or shrub clearing, or repair of/damage to existing landscape, or pavements. If such services are desired by the owner/client, we should be notified so we can adjust our Scope of Services.

Unless instructed otherwise, we will submit our invoice(s) to the address shown at the beginning of this proposal. If conditions are encountered that require Scope of Services revisions and/or result in higher fees, we will contact you for approval, prior to initiating services. A supplemental proposal stating the modified Scope of Services as well as its effect on our fee will be prepared. We will not proceed without your authorization.

### Project Schedule

We developed a schedule to complete the Scope of Services based upon our existing availability and understanding of your project schedule. However, our schedule does not account for delays in field exploration beyond our control, such as weather conditions, delays resulting from utility clearance, or lack of permission to access the boring locations. In the event the schedule provided is inconsistent with your needs, please contact us so we may consider alternatives.

Delivery on Client Portal	Schedule <sup>1, 2</sup>
Kickoff Call with Client	About 2 to 3 days after notice to proceed (NTP)
Site Layout	About 4 to 6 days after NTP



Delivery on Client Portal	Schedule <sup>1, 2</sup>
Public Utility Locates Cleared	About 8 to 12 days after NTP
Field Exploration Completed	About 15 to 20 days after NTP <sup>3</sup>
Laboratory Testing Completed	About 10 to 12 days after completion of the field program
Geotechnical Engineering Report	About 15 to 20 days after completion of field program <sup>3</sup>

1. Upon receipt of your notice to proceed, we will activate the schedule component on **Client Portal** with specific, anticipated dates for the delivery points noted above as well as other pertinent events.
2. Standard workdays. We will maintain an activities calendar within on **Client Portal**. The schedule will be updated to maintain a current awareness of our plans for delivery.
3. Posting date can be affected by drill rig availability at the time we are given notice to proceed. Any advanced notice of Terracon's selection to perform this work will allow for the timely scheduling of a drill rig to perform the field work.



### Exhibit D – Site Location



### Exhibit E – Anticipated Exploration Plan





**EXHIBIT B – CERTIFICATE OF EXEMPTION AND WAIVER**

**DIRECTIONS:**

- ✓ If the Contractor is NOT required under Colorado law to carry workers' compensation insurance and DOES NOT carry it, this exhibit MUST be completed and attached to the Contract.
- ✓ If the Contractor IS required under Colorado law to carry workers' compensation insurance and DOES carry it, this exhibit IS NOT REQUIRED and may be discarded.

The Contractor certifies to the Cities that it is not required to carry workers' compensation insurance under the Colorado Workers' Compensation Act. The Contractor acknowledges that it will be engaging in activities that may expose it to risk of bodily injury. The Contractor affirms that it is physically capable of performing the activities and that all necessary precautions to prevent injury to the Contractor and others will be taken. The Contractor shall not hold either of the Cities liable for any injuries that may arise during or resulting from the work performed under the Contract, and the Contractor shall defend, indemnify, and hold harmless the Cities from all such claims.

**Contractor**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

STATE OF \_\_\_\_\_ )  
 ) ss.  
 COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_ day of \_\_\_\_\_, 20\_\_\_ by \_\_\_\_\_.  
 (Insert name of individual signing on behalf of the Contractor)

S E A L

\_\_\_\_\_  
 Notary's official signature

\_\_\_\_\_  
 Commission expiration date



# NORTHERN COLORADO REGIONAL AIRPORT

4900 Earhart Rd • Loveland, Colorado 80538

(970) 962-2850 • FAX (970) 962-2855 • TDD (970) 962-2620

**ITEM NUMBER:** 6

**MEETING DATE:** November 16, 2023

**PREPARED BY:** Aaron Ehle

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## **TITLE**

Remote Tower Update

## **RECOMMENDED AIRPORT COMMISSION ACTION**

Informational

## **BUDGET IMPACT**

Neutral

## **SUMMARY**

This is an informational item. The Remote Tower Project is a proof-of-concept developmental program supported by the Federal Aviation Administration (FAA) and Colorado Department of Transportation. The project's goal is to create a technologically advanced air traffic control tower solution for airports to be certified by the FAA. In October, Searidge Technologies, the company that was selected to develop the system at FNL, notified the FAA that it was pulling out of the project, citing an unclear path to certification.

Colorado Department of Transportation (CDOT) Aeronautics Director, Dave Ulane, and the State's Remote Tower Project Manager, Bill Payne, will be in attendance to discuss the status of the project, future options for continued development of the remote tower facility, as well as potential options for a traditional air traffic control tower.

## **ATTACHMENT**

CDOT Press Release



October 18, 2023

## Northern Colorado Regional Airport Remote Tower Project Paused - Controlled Airspace to Continue



A view above the center camera mast for the Northern Colorado Regional Airport (FNL) Remote Tower Project. While the project is being paused, controlled airspace will continue at the airport.

**LOVELAND** - Since 2015, the Colorado Department of Transportation's (CDOT) Division of Aeronautics (State), the Northern Colorado Regional Airport (FNL), and the Federal Aviation Administration (FAA) have been collaborating on an innovative effort to bring remote air traffic control tower technology to FNL and Colorado. This technology uses video cameras and other sensing technologies to emulate the operational safety and efficiency benefits of a traditional air traffic control tower but with additional flexibility and capabilities at a much lower capital and operational cost than a traditional air traffic control tower.

In 2018, the FAA selected Searidge Technologies of Ottawa, Canada to be the remote tower technology provider at FNL, and in March 2020, a mobile air traffic control tower was installed in advance of a structured testing and evaluation program to eventually certify and operate a permanent remote tower at FNL. Unfortunately, a number of circumstances have occurred that have impacted the program, including the COVID-19 pandemic and related multi-year FAA travel restrictions, as well as continually changing FAA standards for remote tower certification. As a result, Searidge Technologies has advised the FAA that they will terminate work on the FNL remote tower program.

As this transition occurs over the next several weeks, the state, FNL, and the FAA will collaborate on a new path forward that preserves existing air traffic control services at FNL for the foreseeable future. During this time, future options will be evaluated for continued development of the remote tower facility at FNL as well as potential options for a traditional air traffic control tower. Significant interest exists from other remote tower technology providers to continue development at FNL, and the state and FNL will be working closely with the FAA to explore this option as the preferred alternative.

"While we are disappointed to see Searidge leave the remote tower program, we remain optimistic that the cost-effective benefits of remote tower technology will have tremendous value to Colorado's future aviation system, and we intend to vigorously support future development of the technology," said CDOT's Aeronautics Director David Ulane.

"FNL has a well-deserved reputation for innovation, safety, and development and the Remote Tower is a great example of that focus. The Remote Tower has already provided an exceptional, innovative pathway to meet the operational demands of our growing airport in a safe, cost-effective, and timely way," said David Ruppel, Northern Colorado Regional Airport interim director. "While this news is unfortunate, we are



confident that with the FAA's ongoing support, CDOT's commitment to this project and our airport, as well as interest from other highly qualified vendors, we will be able to carry this effort forward."

**For more information please contact:**

Dave Ruppel, Interim Airport Manager  
Northern CO Regional Airport  
970.962.2850 | [David.Ruppel@cityofloveland.org](mailto:David.Ruppel@cityofloveland.org)

David Ulane, Director  
Colorado Division of Aeronautics  
303.512.5254 | [David.Ulane@state.co.us](mailto:David.Ulane@state.co.us)

***Under the Direction of the Colorado Aeronautical Board, the Colorado Department of Transportation's Division of Aeronautics supports Colorado's multi-modal transportation system by advancing a safe, efficient, and effective statewide air and space system through collaboration, investment, and advocacy. In partnership with the Federal Aviation Administration, 76 public-use airports, and a diverse group of aviation system users, the Division also works to promote aviation safety and education through the efficient administration of the Colorado Aviation Fund.***

***FNL is a commercially certified regional airport supporting over 110,000 annual flight operations, with over 200 hangars and over 300 based aircraft. It is one of 14 commercial airports in Colorado and has not only supported numerous commercial airlines in the past but with the addition of a new Terminal, wider runways, and the future certification of the Remote Tower system will continue to be the transportation hub for Northern Colorado. FNL supports over 1,072 jobs, \$51,914,000 in annual payroll, and \$160,874,000 in Business revenue.***



**COLORADO**  
Aeronautical Board

**Upcoming CAB Meetings**

December 13, 2023

1:00 p.m.

General Meeting

[Colorado Division of Aeronautics](#)



If you have an event you would like to add to the Colorado Aviation Events Calendar, please email [Hetty.Carlson@state.co.us](mailto:Hetty.Carlson@state.co.us)



Colorado Division of Aeronautics | 5126 Front Range Parkway | Watkins, CO 80137 | 303.512.5250  
[Colorado-Aeronautics.org](http://Colorado-Aeronautics.org)

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# NORTHERN COLORADO REGIONAL AIRPORT

4900 Earhart Rd • Loveland, Colorado 80538

(970) 962-2850 • FAX (970) 962-2855 • TDD (970) 962-2620

**ITEM NUMBER:** 7

**MEETING DATE:** November 16, 2023

**PREPARED BY:** Kate Morgan, Airport Executive Assistant

## **TITLE**

2024 Rates and Fees Recommendation to City Councils for Adoption

## **RECOMMENDED AIRPORT COMMISSION ACTION**

Recommend the 2024 Airport rates and fees for adoption by the City Councils

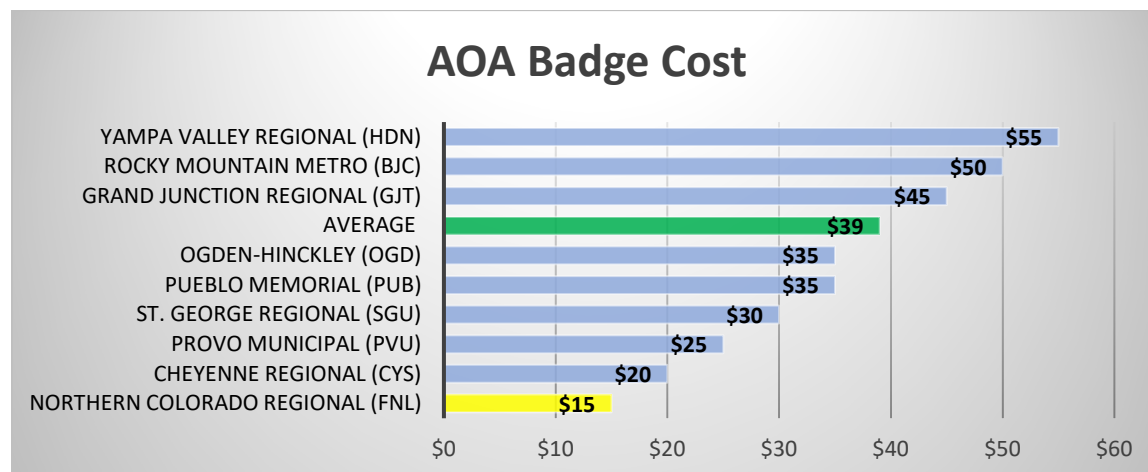
## **BUDGET IMPACT**

Positive budget impact expected from increased revenues

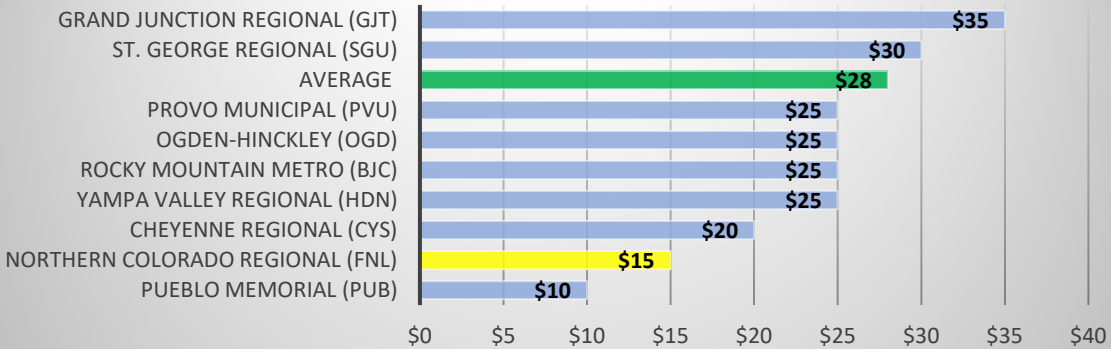
## **SUMMARY**

The Intergovernmental Agreement (IGA) between the Cities requires that each City Council approve the Airport rates and fees which contribute revenue to Airport budget. The process includes the annual adjustment of some rates and fees, such as land lease rates and hangar lease rates, using the Consumer Price Index as published by the US Bureau of Labor Statistics. The annual adjustment was 8.11% for 2023.

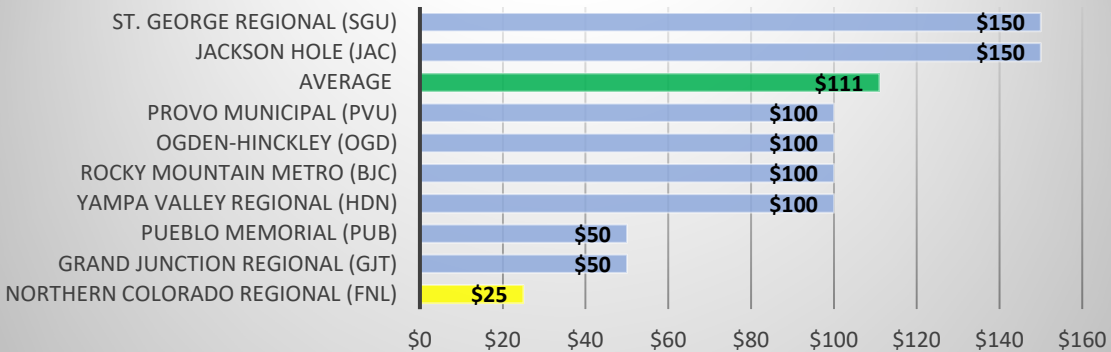
Staff also performed a badge fee analysis and comparison study with other local airports. Results of the cost comparison study are shown in the graphs below.



## AOA Rebadge Cost



## Lost Badge Cost



Adjustments to the airport security badge pricing as outlined in the attachment are recommended to stay consistent with other airports in the region and to adequately cover expenses. Airport staff recommend increasing the AOA badge fee to \$25.

Hangar lease fees for A and B hangars should be removed from the list since those T-hangars are being demolished.

### **ATTACHMENT**

Rates & Fees Comparison Current vs. Proposed

**NORTHERN COLORADO REGIONAL AIRPORT**

<b>Airport Fees:</b>	<b>2023</b>		<b>2024</b>		<b>Difference</b>
Fuel Flowage Fee, Off-Airport, whichever is greater:					
<i>Percentage of actual cost, after taxes</i>		10%		10%	\$ -
<i>or Per Gallon</i>	\$	0.08	\$	0.08	\$ -
Fuel Flowage Fee, On-Airport, whichever is greater:					
<i>Percentage of actual cost, before taxes</i>		6%		6%	\$ -
<i>or Per Gallon</i>	\$	0.06	\$	0.06	\$ -
<i>*Lesser amount applies to scheduled Air Carriers</i>					
<b>Airport Security Access Badge Pricing:</b>					
SIDA badge, New	\$	120.00	\$	120.00	\$ -
<i>Includes costs for fingerprings, badge, prox card, training requirements, &amp; admin</i>					
AOA badge, New & Renewals	\$	15.00	\$	25.00	\$ 10.00
<i>Includes costs for badge, prox card, &amp; administration</i>					
Tier I penalty (Replacement Badge)	\$	25.00	\$	50.00	\$ 25.00
Tier II penalty (Replacement Badge)	\$	75.00	\$	100.00	\$ 25.00
<b>Property Leasing:</b>					
Land Lease, to be increased annually by CPI:					
Improved, per square foot	\$	0.464	\$	0.501	\$ 0.04
Unimproved, per square foot	\$	0.327	\$	0.353	\$ 0.03
Intent to lease deposit (minimum and per additional acre)	\$	1,000.00	\$	1,000.00	\$ -
Terminal Concession Lease, per square foot	\$	15.00	\$	15.00	\$ -
<b>Hangar Leasing:</b>					
T-Hangar Lease:					
"A" per month	\$	249.00		N/A	
"B" per month	\$	292.00		N/A	
"C" per month	\$	308.00	\$	308.00	\$ -
Hangar Waiting List Application Fee, per hangar type	\$	25.00	\$	25.00	\$ -
<b>Airline Charges:</b>					
Landing Fees, per 1,000 pounds of certified gross landing weight	\$	0.95	\$	0.95	\$ -
<i>Applies to scheduled and unscheduled aircraft in excess of 90,000 pounds</i>					
Terminal Building Use, per flight	\$	55.00	\$	55.00	\$ -
<i>Applies to scheduled and unscheduled Air Carriers or Charter aircraft</i>					
Passenger Facility Charges, per passenger	\$	4.50	\$	4.50	\$ -
ARFF (Aircraft Rescue and Fire Fighting) Standby Fees:					
<i>Applies to scheduled and unscheduled Air Carriers.</i>					
Index B, per flight	\$	100.00	\$	100.00	\$ -
Index C, per flights	\$	150.00	\$	150.00	\$ -