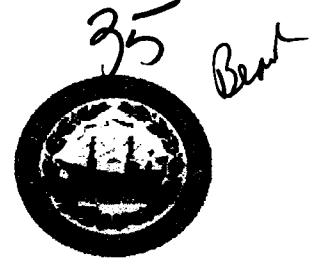




THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



CHRISTOPHER D. CLEMENT
COMMISSIONER

JEFF BRILLHART, P.E.
ASSISTANT COMMISSIONER

July 31, 2014

Bureau of Aeronautics

Her Excellency, Governor Margaret Wood Hassan
and the Honorable Council
State House
Concord, New Hampshire 03301

REQUESTED ACTION

Authorize the Department of Transportation to provide funding to the Town of Whitefield, NH (Vendor Code 177499), for SBG-17-06-2014, to conduct an airspace obstruction analysis and airport safety improvement study (Phase 1) at the Mt. Washington Regional Airport in Whitefield, NH. State and Federal participation in the amount of \$153,947.37 is effective upon Governor and Council approval through September 30, 2018. 97.44% Federal Funds, 2.56% General Funds.

Funding is available as follows:

FY 2015

04-96-96-960030-0997

FAA Projects

034-500151 Bonded Expenses

\$153,947.37

EXPLANATION

Three Federal Aviation Administration (FAA) State Block Grants were awarded to the State of New Hampshire:

Table with 2 columns: FAA Grant Number and FAA Grant Amount. Rows include 3-33-SBGP-11-2011 (\$ 792,769.00), 3-33-SBGP-12-2011 (\$ 630,340.00), and 3-33-SBGP-13-2011 (\$ 541,512.00).

A total of \$150,000.00 (or 95% of the project cost) is proposed from the grant listed above for this airport planning project (SBG-17-06-2014 copy attached), to conduct an airspace obstruction analysis and airport safety improvement study (Phase 1) at the Mt. Washington Regional Airport in Whitefield, NH.

This proposed two-phase planning project consists of detailed airspace obstruction analyses of the existing and ultimate Federal Aviation Regulation (FAR) Part 77 surfaces that are associated with the Mt. Washington Regional Airport's published instrument approach procedures. Additional obstruction analyses will be conducted for Runway 10 Precision Approach Path Indicator (PAPI), Obstacle Clearance Surface (OCS), existing hazard beacons and the airport rotating beacon. The results of these airspace obstruction analyses will be depicted on a set of drawings and will be summarized in a comprehensive technical report.

Phase I of this project is funded from FAA grants that provided funding at 95% of the project cost. Phase II of this project is funded from an FAA grant that provides federal funding at 90% of the project cost. Due to FAA requirements, the Department is unable to combine the two phases into one contract with different federal shares. The project was phased to account for the different percentages in federal funding. The total funding for Phase II of this project is \$84,240.00. This request is requesting approval for Phase I only.

The Department of Transportation accepts the Federal Funds for this project as a pass through to the Town of Whitefield in accordance with RSA 422:15. The Town of Whitefield will participate in the amount of \$3,947.37 (2.5% of this project). State participation in the amount of \$3,947.37 (2.5% of this project) is also requested. The total cost of the airport development project is \$242,134.74, of which Phase 1 is \$157,894.74.

The Contract has been approved by the Attorney General as to form and execution, and the Department has verified that the necessary funds are available. Copies of the fully executed contract are on file at the Secretary of State's Office and the Department of Administrative Service's Office, and subsequent to Governor and Council approval will be on file at the Department of Transportation.

In the event that the Federal Funds become no longer available, General Funds will not be requested to support this program.

Please note that the state funds are from the General Fund and have been previously approved in HB25, 2011 253:1 XIV-A Capital Budget.

Sincerely,

A handwritten signature in black ink, appearing to read "C.D. Clement Sr.", with a stylized flourish at the end.

Christopher D. Clement Sr.
Commissioner

Attachment
CDC/tisl



U.S. Department
of Transportation

Federal Aviation
Administration

New England Region

12 New England Executive Park
Burlington, Massachusetts 01803

GRANT AGREEMENT
Part 1 - Offer

Date of Offer: March 2, 2011

State of New Hampshire Block Grant

Project No.: 3-33-SBGP-11-2011

DUNS No.: 80-859-1697

TO: State of New Hampshire
(herein called the "Sponsor")

FROM: The United States of America (acting through the Federal Aviation Administration,
herein called the "FAA")

WHEREAS, the Sponsor has submitted to the FAA a Project Application dated January 31,
2011, for a grant of Federal funds for a project at or associated with the State of New
Hampshire Block Grant Program which Project Application, as approved by the FAA, is hereby
incorporated herein and made a part hereof; and

WHEREAS, the FAA has approved a project for the Airport (herein called the "Project")
consisting of the following:

State Block Grant (FY2011, Phase I),

all as more particularly shown in the project application.

NOW THEREFORE, pursuant to and for the purpose of carrying out the provisions of the Title 49, United States Code, herein called Title 49 U.S. C., and in consideration of (a) the Sponsor's adoption and ratification of the representations and assurances contained in said Project Application and its acceptance of this Offer as hereinafter provided, and (b) the benefits to accrue to the United States and the public from the accomplishment of the Project and compliance with the assurances and conditions as herein provided, **THE FEDERAL AVIATION ADMINISTRATION, FOR AND ON BEHALF OF THE UNITED STATES, HEREBY OFFERS AND AGREES** to pay, as the United States share of the allowable costs incurred in accomplishing the Project, 95 percent of such costs.

The Offer is made on and subject to the following terms and conditions:

Conditions

1. The maximum obligation of the United States payable under this offer shall be \$792,769.00. For the purposes of any future grant amendments which may increase the foregoing maximum obligation of the United States under the provisions of Section 47108(b) of the Title 49 U.S.C., the following amounts are being specified for this purpose.

\$00.00 for planning
\$792,769.00 for airport development or noise program implementation.

2. The allowable costs of the project shall not include any costs determined by the FAA to be ineligible for consideration as to allowability under Title 49 U.S.C.

3. Payment of the United States share of the allowable project costs will be made pursuant to and in accordance with the provisions of such regulations and procedures as the Secretary shall prescribe. Final determination of the United States share will be based upon the final audit of the total amount of allowable project costs and settlement will be made for any upward or downward adjustments to the Federal share of costs.

4. The sponsor shall carry out and complete the Project without undue delays and in accordance with the terms hereof, and such regulations and procedures as the Secretary shall prescribe, and agrees to comply with the assurances which were made part of the project application.

5. The FAA reserves the right to amend or withdraw this offer at any time prior to its acceptance by the sponsor.

6. This offer shall expire and the United States shall not be obligated to pay any part of the costs of the project unless this offer has been accepted by the sponsor on or before March 15, 2011, or such subsequent date as may be prescribed in writing by the FAA.

7. The sponsor shall take all steps, including litigation if necessary, to recover Federal funds spent fraudulently, wastefully, or in violation of Federal antitrust statutes, or misused in any other manner in any project upon which Federal funds have been expended. For the purposes of this grant agreement, the term "Federal funds" means funds however used or disbursed by the sponsor that were originally paid pursuant to this or any other Federal grant agreement. It shall obtain the approval of the Secretary as to any determination of the amount of the Federal share of such funds. It shall return the recovered Federal share, including funds recovered by settlement, order or judgment, to the Secretary. It shall furnish to the Secretary, upon request, all documents and records pertaining to the determination of the amount of the Federal share or to any settlement, litigation, negotiation, or other efforts taken to recover such funds. All settlements or other final positions of the sponsor, in court or otherwise, involving the recovery of such Federal share shall be approved in advance by the Secretary.

8. The United States shall not be responsible or liable for damage to property or injury to persons which may arise from, or be incident to, compliance with this grant agreement.

9. Buy American Requirement: Unless otherwise approved by the FAA, the sponsor will not acquire or permit any contractor or subcontractor to acquire any steel or manufactured products produced outside the United States to be used for any project for airport development or noise compatibility for which funds are provided under this grant. The Sponsor will include in every contract a provision implementing this special condition.

10. The Sponsor agrees to request cash drawdowns on the letter of credit only when actually needed for its disbursements and to timely reporting of such disbursements as required. It is understood that failure to adhere to this provision may cause the letter of credit to be revoked.

11. Trafficking Persons:

a. Provisions applicable to a recipient that is a private entity.

1. You as the recipient, your employees, subrecipients under this award, and subrecipients' employees may not--

- i. Engage in severe forms of trafficking in persons during the period of time that the award is in effect;
- ii. Procure a commercial sex act during the period of time that the award is in effect; or
- iii. Use forced labor in the performance of the award or subawards under the award.

2. We as the Federal awarding agency may unilaterally terminate this award, without penalty, if you or a subrecipient that is a private entity --

- i. Is determined to have violated a prohibition in paragraph a.1 of this award term; or
- ii. Has an employee who is determined by the agency official authorized to terminate the award to have violated a prohibition in paragraph a.1 of this award term through conduct that is either-- February 19, 2008.

3. A. Associated with performance under this award; or B. Imputed to you or the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, "OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," as implemented by our agency at 49 CFR Part 29.

b. Provision applicable to a recipient other than a private entity. We as the Federal awarding agency may unilaterally terminate this award, without penalty, if a subrecipient that is a private entity--

1. Is determined to have violated an applicable prohibition in paragraph a.1 of this award term; or

2. Has an employee who is determined by the agency official authorized to terminate the award to have violated an applicable prohibition in paragraph a.1 of this award term through conduct that is either--

i. Associated with performance under this award; or

ii. Imputed to the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, "OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," as implemented by our agency at 49 CFR Part 29.

c. Provisions applicable to any recipient.

1. You must inform us immediately of any information you receive from any source alleging a violation of a prohibition in paragraph a.1 of this award term.

2. Our right to terminate unilaterally that is described in paragraph a.2 or b of this section:

i. Implements section 106(g) of the Trafficking Victims Protection Act of 2000 (TVPA), as amended (22 U.S.C. 7104(g)), and

ii. Is in addition to all other remedies for noncompliance that are available to us under this award.

3. You must include the requirements of paragraph a.1 of this award term in any subaward you make to a private entity.

The Sponsor's acceptance of this Offer and ratification and adoption of the Project Application incorporated herein shall be evidenced by execution of this instrument by the Sponsor, as hereinafter provided, and this Offer and Acceptance shall comprise a Grant Agreement, as provided by Title 49 U.S.C., constituting the contractual obligations and rights of the United States and the Sponsor with respect to the accomplishment of the Project and compliance with the assurances and conditions as provided herein. Such Grant Agreement shall be effective upon the Sponsor's acceptance of this Offer.

**UNITED STATES OF AMERICA
FEDERAL AVIATION ADMINISTRATION**

Bryan R. Kelly
Title: Manager, Airports Division,
ACTED New England Region

Part II - Acceptance

The Sponsor does hereby ratify and adopt all assurances, statements, representations, warranties, covenants, and agreements contained in the Project Application and incorporated materials referred to in the foregoing Offer and does hereby accept this Offer and by such acceptance agrees to comply with all of the terms and conditions in this Offer and in the Project Application.

Executed this 7 day of March, 2011.

State of New Hampshire

(SEAL)

By [Signature]
Title: Jack W. Ferns, Director
Aeronautics, Rail, and Transit
NHDOT

Attest: [Signature]
Title: Admin. Asst.

CERTIFICATE OF SPONSOR'S ATTORNEY

I, David M. Hills, acting as Attorney for the Sponsor do hereby certify:

That in my opinion the Sponsor is empowered to enter into the foregoing Grant Agreement under the laws of the State of New Hampshire. Further, I have examined the foregoing Grant Agreement and the actions taken by said Sponsor and Sponsor's official representative has been duly authorized and that the execution thereof is in all respects due and proper and in accordance with the laws of the said State and the Act. In addition, for grants involving projects to be carried out on property not owned by the Sponsor, there are no legal impediments that will prevent full performance by the Sponsor. Further, it is my opinion that the said Grant Agreement constitutes a legal and binding obligation of the Sponsor in accordance with the terms thereof.

Dated at Concord, N.H. this 7th day of March, 2011.

[Signature]
Signature of Sponsor's Attorney



RECEIVED

JUN - 6 2011

U.S. Department
of Transportation
**Federal Aviation
Administration**

New England Region

12 New England Executive Park
Burlington, Massachusetts 01803

NH AERONAUTICS

**GRANT AGREEMENT
Part 1 - Offer**

Date of Offer: June 3, 2011

State of New Hampshire Block Grant

Project No.: 3-33-SBGP-12-2011

DUNS No.: 80-859-1697

TO: State of New Hampshire
(herein called the "Sponsor")

FROM: The United States of America (acting through the Federal Aviation Administration,
herein called the "FAA")

WHEREAS, the Sponsor has submitted to the FAA a Project Application dated April 28, 2011,
for a grant of Federal funds for a project at or associated with the State of New Hampshire
Block Grant Program which Project Application, as approved by the FAA, is hereby
incorporated herein and made a part hereof; and

WHEREAS, the FAA has approved a project for the Airport (herein called the "Project")
consisting of the following:

State Block Grant (FY2011, Phase II),

all as more particularly shown in the project application.

NOW THEREFORE, pursuant to and for the purpose of carrying out the provisions of the Title 49, United States Code, herein called Title 49 U.S. C., and in consideration of (a) the Sponsor's adoption and ratification of the representations and assurances contained in said Project Application and its acceptance of this Offer as hereinafter provided, and (b) the benefits to accrue to the United States and the public from the accomplishment of the Project and compliance with the assurances and conditions as herein provided, **THE FEDERAL AVIATION ADMINISTRATION, FOR AND ON BEHALF OF THE UNITED STATES, HEREBY OFFERS AND AGREES** to pay, as the United States share of the allowable costs incurred in accomplishing the Project, 95 percent of such costs.

The Offer is made on and subject to the following terms and conditions:

Conditions

1. The maximum obligation of the United States payable under this offer shall be \$630,340.00. For the purposes of any future grant amendments which may increase the foregoing maximum obligation of the United States under the provisions of Section 47108(b) of the Title 49 U.S.C., the following amounts are being specified for this purpose.

\$00.00	for planning
\$630,340.00	for airport development or noise program implementation.
2. The allowable costs of the project shall not include any costs determined by the FAA to be ineligible for consideration as to allowability under Title 49 U.S.C.
3. Payment of the United States share of the allowable project costs will be made pursuant to and in accordance with the provisions of such regulations and procedures as the Secretary shall prescribe. Final determination of the United States share will be based upon the final audit of the total amount of allowable project costs and settlement will be made for any upward or downward adjustments to the Federal share of costs.
4. The sponsor shall carry out and complete the Project without undue delays and in accordance with the terms hereof, and such regulations and procedures as the Secretary shall prescribe, and agrees to comply with the assurances which were made part of the project application.
5. The FAA reserves the right to amend or withdraw this offer at any time prior to its acceptance by the sponsor.
6. This offer shall expire and the United States shall not be obligated to pay any part of the costs of the project unless this offer has been accepted by the sponsor on or before June 22, 2011, or such subsequent date as may be prescribed in writing by the FAA.

7. The sponsor shall take all steps, including litigation if necessary, to recover Federal funds spent fraudulently, wastefully, or in violation of Federal antitrust statutes, or misused in any other manner in any project upon which Federal funds have been expended. For the purposes of this grant agreement, the term "Federal funds" means funds however used or disbursed by the sponsor that were originally paid pursuant to this or any other Federal grant agreement. It shall obtain the approval of the Secretary as to any determination of the amount of the Federal share of such funds. It shall return the recovered Federal share, including funds recovered by settlement, order or judgment, to the Secretary. It shall furnish to the Secretary, upon request, all documents and records pertaining to the determination of the amount of the Federal share or to any settlement, litigation, negotiation, or other efforts taken to recover such funds. All settlements or other final positions of the sponsor, in court or otherwise, involving the recovery of such Federal share shall be approved in advance by the Secretary.

8. The United States shall not be responsible or liable for damage to property or injury to persons which may arise from, or be incident to, compliance with this grant agreement.

9. Buy American Requirement: Unless otherwise approved by the FAA, the sponsor will not acquire or permit any contractor or subcontractor to acquire any steel or manufactured products produced outside the United States to be used for any project for airport development or noise compatibility for which funds are provided under this grant. The Sponsor will include in every contract a provision implementing this special condition.

10. The Sponsor agrees to request cash drawdowns on the letter of credit only when actually needed for its disbursements and to timely reporting of such disbursements as required. It is understood that failure to adhere to this provision may cause the letter of credit to be revoked.

11. Trafficking Persons:

a. Provisions applicable to a recipient that is a private entity.

1. You as the recipient, your employees, subrecipients under this award, and subrecipients' employees may not-

i. Engage in severe forms of trafficking in persons during the period of time that the award is in effect;

ii. Procure a commercial sex act during the period of time that the award is in effect; or

iii. Use forced labor in the performance of the award or subawards under the award.

2. We as the Federal awarding agency may unilaterally terminate this award, without penalty, if you or a subrecipient that is a private entity -

i. Is determined to have violated a prohibition in paragraph a.1 of this award term; or

ii. Has an employee who is determined by the agency official authorized to terminate the award to have violated a prohibition in paragraph a.1 of this award term through conduct that is either- February 19, 2008.

3. A. Associated with performance under this award; or B. Imputed to you or the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, "OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," as implemented by our agency at 49 CFR Part 29.

b. Provision applicable to a recipient other than a private entity. We as the Federal awarding agency may unilaterally terminate this award, without penalty, if a subrecipient that is a private entity--

1. Is determined to have violated an applicable prohibition in paragraph a.1 of this award term; or

2. Has an employee who is determined by the agency official authorized to terminate the award to have violated an applicable prohibition in paragraph a.1 of this award term through conduct that is either--

i. Associated with performance under this award; or

ii. Imputed to the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, "OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," as implemented by our agency at 49 CFR Part 29.

c. Provisions applicable to any recipient.

1. You must inform us immediately of any information you receive from any source alleging a violation of a prohibition in paragraph a.1 of this award term.

2. Our right to terminate unilaterally that is described in paragraph a.2 or b of this section:

i. Implements section 106(g) of the Trafficking Victims Protection Act of 2000 (TVPA), as amended (22 U.S.C. 7104(g)), and

ii. Is in addition to all other remedies for noncompliance that are available to us under this award.

3. You must include the requirements of paragraph a.1 of this award term in any subaward you make to a private entity.

The Sponsor's acceptance of this Offer and ratification and adoption of the Project Application incorporated herein shall be evidenced by execution of this instrument by the Sponsor, as hereinafter provided, and this Offer and Acceptance shall comprise a Grant Agreement, as provided by Title 49 U.S.C., constituting the contractual obligations and rights of the United States and the Sponsor with respect to the accomplishment of the Project and compliance with the assurances and conditions as provided herein. Such Grant Agreement shall be effective upon the Sponsor's acceptance of this Offer.

**UNITED STATES OF AMERICA
FEDERAL AVIATION ADMINISTRATION**



Title: Manager, Airports Division,
Acting New England Region

Part II - Acceptance

The Sponsor does hereby ratify and adopt all assurances, statements, representations, warranties, covenants, and agreements contained in the Project Application and incorporated materials referred to in the foregoing Offer and does hereby accept this Offer and by such acceptance agrees to comply with all of the terms and conditions in this Offer and in the Project Application.

Executed this 8TH day of JUNE, 2011.

State of New Hampshire

By Robert P. Pelletier

Title: Deputy Commissioner

(SEAL)

Attest: Kelly K. Hacking
Title: Notary Public


KELLY K. HACKING, Notary Public
My Commission Expires October 6, 2015

CERTIFICATE OF SPONSOR'S ATTORNEY

I, David M. Hitts, acting as Attorney for the Sponsor do hereby certify:

That in my opinion the Sponsor is empowered to enter into the foregoing Grant Agreement under the laws of the State of New Hampshire. Further, I have examined the foregoing Grant Agreement and the actions taken by said Sponsor and Sponsor's official representative has been duly authorized and that the execution thereof is in all respects due and proper and in accordance with the laws of the said State and the Act. In addition, for grants involving projects to be carried out on property not owned by the Sponsor, there are no legal impediments that will prevent full performance by the Sponsor. Further, it is my opinion that the said Grant Agreement constitutes a legal and binding obligation of the Sponsor in accordance with the terms thereof.

Dated at Concord, NH this 9th day of June, 2011.



Signature of Sponsor's Attorney



U.S. Department
of Transportation
**Federal Aviation
Administration**

New England Region

12 New England Executive Park
Burlington, Massachusetts 01803

GRANT AGREEMENT
Part 1 - Offer

Date of Offer: September 2, 2011

State of New Hampshire Block Grant

Project No.: 3-33-SBGP-13-2011

DUNS No.: 80-859-1697

TO: State of New Hampshire
(herein called the "Sponsor")

FROM: The United States of America (acting through the Federal Aviation Administration,
herein called the "FAA")

WHEREAS, the Sponsor has submitted to the FAA a Project Application dated Juen 14, 2011,
for a grant of Federal funds for a project at or associated with the State of New Hampshire
Block Grant Program which Project Application, as approved by the FAA, is hereby
incorporated herein and made a part hereof; and

WHEREAS, the FAA has approved a project for the Airport (herein called the "Project")
consisting of the following:

State Block Grant (FY2011, Phase III),

all as more particularly shown in the project application.

NOW THEREFORE, pursuant to and for the purpose of carrying out the provisions of the Title 49, United States Code, herein called Title 49 U.S. C., and in consideration of (a) the Sponsor's adoption and ratification of the representations and assurances contained in said Project Application and its acceptance of this Offer as hereinafter provided, and (b) the benefits to accrue to the United States and the public from the accomplishment of the Project and compliance with the assurances and conditions as herein provided, **THE FEDERAL AVIATION ADMINISTRATION, FOR AND ON BEHALF OF THE UNITED STATES, HEREBY OFFERS AND AGREES** to pay, as the United States share of the allowable costs incurred in accomplishing the Project, 95 percent of such costs.

The Offer is made on and subject to the following terms and conditions:

Conditions

1. The maximum obligation of the United States payable under this offer shall be \$541,512.00. For the purposes of any future grant amendments which may increase the foregoing maximum obligation of the United States under the provisions of Section 47108(b) of the Title 49 U.S.C., the following amounts are being specified for this purpose.

\$00.00	for planning
\$541,512.00	for airport development or noise program implementation.
2. The allowable costs of the project shall not include any costs determined by the FAA to be ineligible for consideration as to allowability under Title 49 U.S.C.
3. Payment of the United States share of the allowable project costs will be made pursuant to and in accordance with the provisions of such regulations and procedures as the Secretary shall prescribe. Final determination of the United States share will be based upon the final audit of the total amount of allowable project costs and settlement will be made for any upward or downward adjustments to the Federal share of costs.
4. The sponsor shall carry out and complete the Project without undue delays and in accordance with the terms hereof, and such regulations and procedures as the Secretary shall prescribe, and agrees to comply with the assurances which were made part of the project application.
5. The FAA reserves the right to amend or withdraw this offer at any time prior to its acceptance by the sponsor.
6. This offer shall expire and the United States shall not be obligated to pay any part of the costs of the project unless this offer has been accepted by the sponsor on or before September 12, 2011, or such subsequent date as may be prescribed in writing by the FAA.

7. The sponsor shall take all steps, including litigation if necessary, to recover Federal funds spent fraudulently, wastefully, or in violation of Federal antitrust statutes, or misused in any other manner in any project upon which Federal funds have been expended. For the purposes of this grant agreement, the term "Federal funds" means funds however used or disbursed by the sponsor that were originally paid pursuant to this or any other Federal grant agreement. It shall obtain the approval of the Secretary as to any determination of the amount of the Federal share of such funds. It shall return the recovered Federal share, including funds recovered by settlement, order or judgment, to the Secretary. It shall furnish to the Secretary, upon request, all documents and records pertaining to the determination of the amount of the Federal share or to any settlement, litigation, negotiation, or other efforts taken to recover such funds. All settlements or other final positions of the sponsor, in court or otherwise, involving the recovery of such Federal share shall be approved in advance by the Secretary.

8. The United States shall not be responsible or liable for damage to property or injury to persons which may arise from, or be incident to, compliance with this grant agreement.

9. Buy American Requirement: Unless otherwise approved by the FAA, the sponsor will not acquire or permit any contractor or subcontractor to acquire any steel or manufactured products produced outside the United States to be used for any project for airport development or noise compatibility for which funds are provided under this grant. The Sponsor will include in every contract a provision implementing this special condition.

10. The Sponsor agrees to request cash drawdowns on the letter of credit only when actually needed for its disbursements and to timely reporting of such disbursements as required. It is understood that failure to adhere to this provision may cause the letter of credit to be revoked.

11. Trafficking Persons:

a. Provisions applicable to a recipient that is a private entity.

1. You as the recipient, your employees, subrecipients under this award, and subrecipients' employees may not--

- i. Engage in severe forms of trafficking in persons during the period of time that the award is in effect;
- ii. Procure a commercial sex act during the period of time that the award is in effect; or
- iii. Use forced labor in the performance of the award or subawards under the award.

2. We as the Federal awarding agency may unilaterally terminate this award, without penalty, if you or a subrecipient that is a private entity -

- i. Is determined to have violated a prohibition in paragraph a.1 of this award term; or
- ii. Has an employee who is determined by the agency official authorized to terminate the award to have violated a prohibition in paragraph a.1 of this award term through conduct that is either-- February 19, 2008.

3. A. Associated with performance under this award; or B. Imputed to you or the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, "OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," as implemented by our agency at 49 CFR Part 29.

b. Provision applicable to a recipient other than a private entity. We as the Federal awarding agency may unilaterally terminate this award, without penalty, if a subrecipient that is a private entity--

1. Is determined to have violated an applicable prohibition in paragraph a.1 of this award term; or

2. Has an employee who is determined by the agency official authorized to terminate the award to have violated an applicable prohibition in paragraph a.1 of this award term through conduct that is either--

i. Associated with performance under this award; or

ii. Imputed to the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, "OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," as implemented by our agency at 49 CFR Part 29.

c. Provisions applicable to any recipient.

1. You must inform us immediately of any information you receive from any source alleging a violation of a prohibition in paragraph a.1 of this award term.

2. Our right to terminate unilaterally that is described in paragraph a.2 or b of this section:

i. Implements section 106(g) of the Trafficking Victims Protection Act of 2000 (TVPA), as amended (22 U.S.C. 7104(g)), and

ii. Is in addition to all other remedies for noncompliance that are available to us under this award.

3. You must include the requirements of paragraph a.1 of this award term in any subaward you make to a private entity.

The Sponsor's acceptance of this Offer and ratification and adoption of the Project Application incorporated herein shall be evidenced by execution of this instrument by the Sponsor, as hereinafter provided, and this Offer and Acceptance shall comprise a Grant Agreement, as provided by Title 49 U.S.C., constituting the contractual obligations and rights of the United States and the Sponsor with respect to the accomplishment of the Project and compliance with the assurances and conditions as provided herein. Such Grant Agreement shall be effective upon the Sponsor's acceptance of this Offer.

**UNITED STATES OF AMERICA
FEDERAL AVIATION ADMINISTRATION**

Bry H. Reff
Title: Manager, Airports Division,
ACTIVE New England Region

Part II - Acceptance

The Sponsor does hereby ratify and adopt all assurances, statements, representations, warranties, covenants, and agreements contained in the Project Application and incorporated materials referred to in the foregoing Offer and does hereby accept this Offer and by such acceptance agrees to comply with all of the terms and conditions in this Offer and in the Project Application.

Executed this 7th day of September, 2011.
State of New Hampshire

By Michael P. Palko
Title: Deputy Commissioner

(SEAL)

Attest: Diane Hartford
Title: Administrative Asst.

DIANE L. HARTFORD
Notary Public
My Commission Expires May 20, 2014

CERTIFICATE OF SPONSOR'S ATTORNEY

I, David M. Hills, acting as Attorney for the Sponsor do hereby certify:

That in my opinion the Sponsor is empowered to enter into the foregoing Grant Agreement under the laws of the State of New Hampshire. Further, I have examined the foregoing Grant Agreement and the actions taken by said Sponsor and Sponsor's official representative has been duly authorized and that the execution thereof is in all respects due and proper and in accordance with the laws of the said State and the Act. In addition, for grants involving projects to be carried out on property not owned by the Sponsor, there are no legal impediments that will prevent full performance by the Sponsor. Further, it is my opinion that the said Grant Agreement constitutes a legal and binding obligation of the Sponsor in accordance with the terms thereof.

Dated at Concord, N.H. this 7th day of September, 2011.
[Signature]
Signature of Sponsor's Attorney



New Hampshire Department
of Transportation
Bureau of Aeronautics

GRANT AGREEMENT

PART I – OFFER

Date of Offer	July 3, 2014
Airport/Planning Area	Mt. Washington Regional Airport
AIP Grant Number	SBG 17-07-2014
DUNS Number	96-858-0738

TO: Town of Whitefield, New Hampshire
(herein called the "Sponsor")

FROM: The State of New Hampshire (acting through the New Hampshire Department of Transportation,
herein called the "State")

WHEREAS, the Sponsor has submitted to the State a Project Application dated June 27, 2014, for a grant of Federal and State funds for a project at or associated with the Mt. Washington Regional Airport, which as approved by the State, is hereby included as part of this Grant Agreement; and

WHEREAS, the State has approved a project for the Mt. Washington Regional Airport (herein called the "Project") consisting of the following:

Airspace Obstruction Analysis and Airport Safety Improvement Study – Phase II

which is more fully described in the Project Application.

NOW THEREFORE, According to the applicable provisions of the former Federal Aviation Act of 1958, as amended and recodified, 49 U.S.C. 40101, et seq., and the former Airport and Airway Improvement Act of 1982 (AAIA), as amended and recodified, 49 U.S.C. 47101, et seq., (herein the AAIA grant statute is referred to as "the Act"), the representations contained in the Project Application, and in consideration of (a) the Sponsor's adoption and ratification of the Grant Assurances dated April 3, 2014, and the Sponsor's acceptance of this Offer, and (b) the benefits to accrue to the United States, State of New Hampshire, and the public from the accomplishment of the Project and compliance with the Grant Assurances and conditions as herein provided,

THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, FOR AND ON BEHALF OF THE UNITED STATES AND THE STATE, HEREBY OFFERS AND AGREES to pay 95.0 percent of the allowable costs incurred accomplishing the Project as the United States' and State's share of allowable costs incurred in accomplishing the Project.

This Offer is made on and **SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:**

CONDITIONS

1. **Maximum Obligation.** The maximum obligation of the United States and State payable under this Offer is \$80,028.00.
For the purposes of any future grant amendments which may increase the foregoing maximum obligation of the United States under the provisions of 49 U.S.C. § 47108(b), the following amounts are being specified for this purpose:
 - \$80,028.00 for planning
 - \$0.00 for airport development or noise program implementation
 - \$0.00 for land acquisition.
2. **Ineligible or Unallowable Costs.** The Sponsor must not include any costs in the project that the State has determined to be ineligible or unallowable under the Act.
3. **Determining the Final Federal and State Share of Costs.** The United States' and State's share of allowable project costs will be made in accordance with the regulations, policies and procedures of the Secretary. Final determination of the United States' and State's share will be based upon the final audit of the total amount of allowable project costs and settlement will be made for any upward or downward adjustments to the Federal and State share of costs.
4. **Completing the Project Without Delay and in Conformance with Requirements.** The Sponsor must carry out and complete the project without undue delays and in accordance with this agreement, and the regulations, policies and procedures of the United States Secretary of Transportation (herein called the "Secretary") and the State. The Sponsor also agrees to comply with the assurances which are part of this agreement.
5. **Amendments or Withdrawals before Grant Acceptance.** The State reserves the right to amend or withdraw this offer at any time prior to its acceptance by the Sponsor.
6. **Offer Expiration Date.** This offer will expire and the United States and the State will not be obligated to pay any part of the costs of the project unless this offer has been accepted by the Sponsor on or before August 4, 2014, or such subsequent date as may be prescribed in writing by the State.
7. **Improper Use of Federal and State Funds.** The Sponsor must take all steps, including litigation if necessary, to recover Federal and State funds spent fraudulently, wastefully, or in violation of Federal and State antitrust statutes, or misused in any other manner in any project upon which Federal and State funds have been expended. For the purposes of this grant agreement, the terms "Federal funds" and "State funds" means funds however used or dispersed by the Sponsor that were originally paid pursuant to this or any other State grant agreement. The Sponsor must obtain the approval of the State as to any determination of the amount of the Federal and State shares of such funds. The Sponsor must return the recovered Federal and State shares, including funds recovered by settlement, order, or judgment, to the State. The Sponsor must furnish to the State, upon request, all documents and records pertaining to the determination of the amount of the Federal and State shares or to any settlement, litigation, negotiation, or other efforts taken to recover such funds. All settlements or other final positions of the Sponsor, in court or otherwise, involving the recovery of such Federal and State shares require advance approval by the State.
8. **United States and State Not Liable for Damage or Injury.** Neither the United States nor the State shall be responsible or liable for damage to property or injury to persons which may arise from, or be incident to, compliance with this grant agreement. Notwithstanding the foregoing, nothing herein contained shall be

deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant shall survive the termination of this Agreement.

9. System for Award Management (SAM) Registration And Universal Identifier.

- A. Requirement for System for Award Management (SAM): Unless the Sponsor is exempted from this requirement under 2 CFR 25.110, the Sponsor must maintain the currency of its information in the SAM until the Sponsor submits the final financial report required under this grant, or receives the final payment, whichever is later. This requires that the Sponsor review and update the information at least annually after the initial registration and more frequently if required by changes in information or another award term. Additional information about registration procedures may be found at the SAM website (currently at <http://www.sam.gov>).
- B. Requirement for Data Universal Numbering System (DUNS) Numbers
 - 1. The Sponsor must notify potential subrecipient that it cannot receive a contract unless it has provided its DUNS number to the Sponsor. A subrecipient means a consultant, contractor, or other entity that enters into an agreement with the Sponsor to provide services or other work to further this project, and is accountable to the Sponsor for the use of the Federal funds provided by the agreement, which may be provided through any legal agreement, including a contract.
 - 2. The Sponsor may not make an award to a subrecipient unless the subrecipient has provided its DUNS number to the Sponsor.
 - 3. Data Universal Numbering System: DUNS number means the nine-digit number established and assigned by Dun and Bradstreet, Inc. (D & B) to uniquely identify business entities. A DUNS number may be obtained from D & B by telephone (currently 866-492-0280) or the Internet (currently at <http://fedgov.dnb.com/webform>).

10. Electronic Grant Payment(s). Unless otherwise directed by the State, the Sponsor must make each payment request under this agreement electronically via the Delphi eInvoicing System for Department of Transportation (DOT) Financial Assistance Awardees.

11. Informal Letter Amendment of AIP Projects. If, during the life of the project, the State determines that the maximum grant obligation of the United States and the State exceeds the expected needs of the Sponsor by \$25,000 or five percent (5%), whichever is greater, the State can issue a letter to the Sponsor unilaterally reducing the maximum obligation. The State can also issue a letter to the Sponsor increasing the maximum obligation if there is an overrun in the total actual eligible and allowable project costs to cover the amount of the overrun provided it will not exceed the statutory limitations for grant amendments. If the State determines that a change in the grant description is advantageous and in the best interests of the United States and the State, the State can issue a letter to the Sponsor amending the grant description.

By issuing an Informal Letter Amendment, the State has changed the grant amount or grant description to the amount or description in the letter.

12. Air and Water Quality. The Sponsor is required to comply with all applicable air and water quality standards for all projects in this grant. If the Sponsor fails to comply with this requirement, the State may suspend, cancel, or terminate this grant.

13. Financial Reporting and Payment Requirements. The Sponsor will comply with all federal financial reporting requirements and payment requirements, including submittal of timely and accurate reports.

14. Buy America. Unless otherwise approved in advance by the State, the Sponsor will not acquire or permit any contractor or subcontractor to acquire any steel or manufactured products produced outside the

United States to be used for any project for which funds are provided under this grant. The Sponsor will include a provision implementing Buy American in every contract.

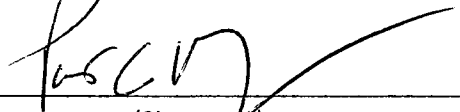
-
15. **Maximum Obligation Increase For Nonprimary Airports.** In accordance with 49 U.S.C. § 47108(b), as amended, the maximum obligation of the United States and the State, as stated in Condition No. 1 of this Grant Offer:
- A. may not be increased for a planning project;
 - B. may be increased by not more than 15 percent for development projects;
 - C. may be increased by not more than 15 percent or by an amount not to exceed 25 percent of the total increase in allowable costs attributable to the acquisition of land or interests in land, whichever is greater, based on current credible appraisals or a court award in a condemnation proceeding.
16. **Audits for Public Sponsors.** The Sponsor must provide for a Single Audit in accordance with 2 CFR Part 200. The Sponsor must submit the Single Audit reporting package to the Federal Audit Clearinghouse on the Federal Audit Clearinghouse's Internet Data Entry System at <http://harvester.census.gov/facweb/>. The Sponsor must also provide one copy of the completed 2 CFR Part 200 audit to the State.
17. **Suspension or Debarment.** The Sponsor must inform the State when the Sponsor suspends or debars a contractor, person, or entity.
18. **Ban on Texting When Driving.**
- A. In accordance with Executive Order 13513, Federal Leadership on Reducing Text Messaging While Driving, October 1, 2009, and DOT Order 3902.10, Text Messaging While Driving, December 30, 2009, the Sponsor is encouraged to:
 1. Adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers including policies to ban text messaging while driving when performing any work for, or on behalf of, the Federal and State governments, including work relating to a grant or subgrant.
 2. Conduct workplace safety initiatives in a manner commensurate with the size of the business, such as:
 - a. Establishment of new rules and programs or re-evaluation of existing programs to prohibit text messaging while driving; and
 - b. Education, awareness, and other outreach to employees about the safety risks associated with texting while driving.
 - B. The Sponsor must insert the substance of this clause on banning texting when driving in all subgrants, contracts and subcontracts.
19. **Trafficking in Persons.**
- A. Prohibitions: The prohibitions against trafficking in persons (Prohibitions) that apply to any entity other than a State, local government, Indian tribe, or foreign public entity. This includes private Sponsors, public Sponsor employees, subrecipients of private or public Sponsors (private entity) are:
 1. Engaging in severe forms of trafficking in persons during the period of time that the agreement is in effect;
 2. Procuring a commercial sex act during the period of time that the agreement is in effect; or
 3. Using forced labor in the performance of the agreement, including subcontracts or subagreements under the agreement.

- B. In addition to all other remedies for noncompliance that are available to the State, Section 106(g) of the Trafficking Victims Protection Act of 2000 (TVPA), as amended (22 U.S.C. 7104(g)), allows the State to unilaterally terminate this agreement, without penalty, if a private entity –
1. Is determined to have violated the Prohibitions; or
 2. Has an employee who the State determines has violated the Prohibitions through conduct that is either—
 - a. Associated with performance under this agreement; or
 - b. Imputed to the Sponsor or subrecipient using 2 CFR part 180, “OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement),” as implemented by the FAA at 49 CFR Part 29.
20. **Exhibit A Incorporated by Reference.** The Exhibit “A” updated August 13, 2008, filed with SBG Project #17-03-2010, is incorporated herein by reference.
21. **Availability of Funds.** Notwithstanding anything in this agreement to the contrary, all obligations of the State hereunder, including, without limitation, the continuance of payments hereunder, are contingent upon the availability and continued appropriation of funds, and in no event shall the State be liable for any payments hereunder in excess of such available appropriated funds. In the event of a reduction or termination of those funds, the State shall have the right to withhold payment until such funds become available, if ever, and shall have the right to terminate this agreement immediately upon giving the Sponsor notice of such termination. In any event neither the State nor United States shall be required to transfer funds from any other grant, program or account in the event funds under this grant are reduced or become unavailable.
22. **Effective Date.** If the date for commencement precedes the Effective Date, all services performed by the Sponsor between the commencement date and the Effective Date shall be performed at the sole risk of the Sponsor and in the event that this Agreement does not become effective, the State shall be under no obligation to pay the Sponsor for any costs incurred or services performed; however that if this Agreement becomes effective all costs incurred prior to the effective date shall be paid under the terms of this Agreement.
23. **Assignment of Interest.** The Sponsor shall not assign, or otherwise transfer any interest in this Agreement without the prior written consent of the State. None of the Services shall be delegated or subcontracted by the Sponsor without the prior written consent of the State.
24. **Entire Agreement.** This agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire agreement and understanding between the parties, and supersedes all prior agreements and understanding both written and verbal relating hereto.
25. **Insurances.** The sponsor shall, at its sole expense, and shall require any subcontractor or assignee, to obtain and maintain in force, an insurance policy or policies designating the State as an additional insured, with the following insurance:
- A. comprehensive general liability insurance against all claims of bodily injury, death or property damage, in amounts of not less than \$250,000 per claim and \$2,000,000 per incident; and
 - B. The policies described in this section shall be the standard form employed in the State of New Hampshire, issued by underwriters acceptable to the State, and authorized to do business in the State of New Hampshire. Each policy shall contain a clause prohibiting cancellation or modifications of the policy earlier than 10 days after written notice thereof has been received by the State.

26. **Public Meeting.** By signing this form, the Sponsor certifies that the Sponsor has complied with any public meeting requirement for acceptance of this grant, including, if applicable, NH RSA 31:95-b.

The Sponsor's acceptance of this Offer and ratification and adoption of the Project Application incorporated herein shall be evidenced by execution of this instrument by the Sponsor, as hereinafter provided, and this Offer and Acceptance shall comprise a Grant Agreement, as provided by the Act, constituting the contractual obligations and rights of the State and the Sponsor with respect to the accomplishment of the Project and compliance with the assurances and conditions as provided herein. Such Grant Agreement shall become effective upon the Sponsor's and the New Hampshire Governor and Council's acceptance of this Offer.

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



(Signature)

Patrick C. Herlihy

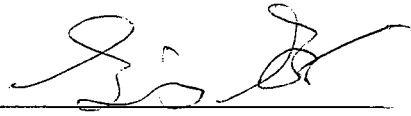
(Typed Name)

Director, Division of Aeronautics, Rail & Transit

(Title)

Attorney General: This is to certify that the above Agreement has been reviewed by this office, and is approved as to form and execution.

Dated: 8/14/14

By: 

Assistant Attorney General

Secretary of State: This is to certify that the Governor and Council on _____ approved this Agreement.

Dated: _____

Attest: _____

By: _____

Secretary of State

(Title)

PART II - ACCEPTANCE

The Sponsor does hereby ratify and adopt all assurances, statements, representations, warranties, covenants, and agreements contained in the Project Application and incorporated materials referred to in the foregoing Offer, and does hereby accept this Offer and by such acceptance agrees to comply with all of the terms and conditions in this Offer and in the Project Application.

I declare under penalty of perjury that the foregoing is true and correct.¹

Executed this 28th day of July, 2014.

Town of Whitehead
(Name of Sponsor)

DAM
(Signature of Sponsor's Designated Official Representative)

By: Duane Hall selectman
(Typed Name of Sponsor's Designated Official Representative)

Title: Town
(Title of Sponsor)

CERTIFICATE OF SPONSOR'S ATTORNEY

I, Shawn Tanguay, acting as Attorney for the Sponsor do hereby certify:

That in my opinion the Sponsor is empowered to enter into the foregoing Grant Agreement under the laws of the State of New Hampshire. Further, I have examined the foregoing Grant Agreement and the actions taken by said Sponsor and Sponsor's official representative has been duly authorized and that the execution thereof is in all respects due and proper and in accordance with the laws of the said State and the Act. In addition, for grants involving projects to be carried out on property not owned by the Sponsor, there are no legal impediments that will prevent full performance by the Sponsor. Further, it is my opinion that the said Grant Agreement constitutes a legal and binding obligation of the Sponsor in accordance with the terms thereof.

Dated at Lebanon, NH this 29th day of July, 2014.

By [Signature]
(Signature of Sponsor's Attorney)

¹ Knowingly and willfully providing false information to the Federal government is a violation of 18 U.S.C. Section 1001 (False Statements) and could subject you to fines, imprisonment, or both.

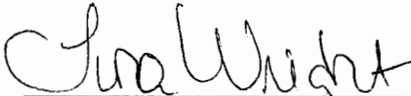
CERTIFICATE OF VOTE

I, Tina Wright, do hereby certify that I am the Town Clerk of the Town of Whitefield in the state of New Hampshire, county of Coos, in the United States of America.

I do further certify that Duane Hall, is a Selectman of the Town of Whitefield and is duly authorized by the by-laws and laws of the State of New Hampshire to execute and deliver for on behalf of the Town of Whitefield any contracts with the State of New Hampshire. This authority was given during an official meeting of the Board of Selectmen on July 28, 2014.

I further certify that such authority has not been repealed, rescinded, or amended.

IN WITNESS WHEREOF, I have hereunto set my hand and attached the seal of the Town of Whitefield on the 28th day of July, 2014.

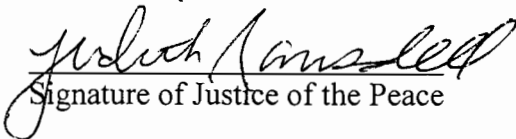


Signature of Tina Wright
Town Clerk/Town of Whitefield

Seal

NOTARY STATEMENT

As Justice of the Peace, registered in the state of New Hampshire, County of Coos, on this 28th day of July, 2014, appeared before me, Judith Ramsdell, Justice of the Peace, personally appeared Tina Wright, who acknowledged herself to be the Town Clerk of the Town of Whitefield, New Hampshire, and that being authorized to do so, she executed the foregoing instrument for the purposes therein contained, by signing by herself in the name of the Town of Whitefield, New Hampshire. In witness whereof, I hereunto set my hand and official seal.



Signature of Justice of the Peace

Judith Ramsdell, Justice of the Peace
April 27, 2016 – Date of Expiration of Commission

CERTIFICATE OF COVERAGE

This certificate evidences the limits of liability in effect at the inception of the Coverage Agreement(s) (also known as the Member Agreement(s)) described below. This certificate is issued as a matter of information only and confers no rights on the certificate holder and does not amend, extend, or alter the coverage afforded by the Member Agreement(s) except to the extent provided in the Additional Covered Party box or Loss Payee box below, if checked.

THIS IS TO CERTIFY THAT THE ENTITY NAMED BELOW HAS BEEN ISSUED THE MEMBER AGREEMENT(S) FOR THE AGREEMENT TERM(S) INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM, OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE COVERAGE AFFORDED BY THE MEMBER AGREEMENT(S) IS SUBJECT TO ALL THE EXCLUSIONS, EXTENSIONS, TERMS, AND CONDITIONS OF SUCH MEMBER AGREEMENT(S). AGGREGATE LIMITS MAY HAVE BEEN REDUCED BY PAID CLAIMS.

Member: Town of Whitefield Member Number: 021-070186 - 15		Company Affording Coverage (the "Company"): Property-Liability Trust, Inc. PO Box 2008, Concord, NH 03302-2008				
Coverage (Occurrence basis only):	Effective Date (mm/dd/yy)	Expiration Date (mm/dd/yy)	Limits (subject to applicable NH statutory limits)			
<input checked="" type="checkbox"/> General Liability (Member Agreement Section III.A)	7/1/2014	6/30/2015	Each Occurrence	\$ 5,000,000		
			General Aggregate	\$		
			Personal & Adv Injury	\$		
			Med Exp (any one person)	\$		
			Products - Comb/Op Agg	\$		
			Fire Damage (each fire)	\$		
<input checked="" type="checkbox"/> Automobile Liability (Member Agreement Section III.A) <input type="checkbox"/> Any Auto <input type="checkbox"/> All Owned Autos <input type="checkbox"/> Scheduled Autos <input type="checkbox"/> Hired Autos <input type="checkbox"/> Non-Owned Autos <input type="checkbox"/> Other _____	7/1/2014	6/30/2015	Each Occurrence	\$ 5,000,000		
			Bodily Injury (per person)	\$		
			Bodily Injury (per accident)	\$		
			Property Damage (per accident)	\$		
			<input type="checkbox"/> Excess Liability		Each Occurrence	\$ N/A
					Aggregate	\$ N/A
<input checked="" type="checkbox"/> Property (All Risk including Theft) (Member Agreement Section I) Deductible: \$1,000	7/1/2014	6/30/2015	\$Per scheduled limits and Member Agreement			
<input type="checkbox"/> Workers' Compensation (Coverage A) Employers' Liability (Coverage B)			Coverage A:	Statutory		
			Cov. B: Each Accident	\$ 2,000,000		
			Disease - Each Employee	\$ 2,000,000		
			Disease - Policy Limit	\$ 2,000,000		
Description: The State of NH and the NH Central Railroad are named as Additional Covered Party's with respect to liability arising from the use and/or occupation of State owned premises under the crossing agreement between the State and the Named Insured.						

CANCELLATION: If any of the above coverages under the Member Agreement are cancelled before the expiration date, the Company will endeavor to mail 30 days written notice to the Certificate Holder named below, but failure to mail such notice shall impose no obligation or liability of any kind upon the Company.

<input checked="" type="checkbox"/> Additional Covered Party	<input type="checkbox"/> Loss Payee, as his, her or its interests appear
Coverage for the Additional Covered Party is limited to "bodily injury" or "property damage" caused by, and only to the extent of, the sole negligence of the Member, and no protection is available for the negligence of others, including the Additional Covered Party and its directors, officers, employees, or agents. Available limits of coverage are shared between the Member and the Additional Covered Party.*	
*Terms in quotes are defined in the Member Agreement.	

Certificate Holder: State of New Hampshire Department of Transportation Concord NH 03302-0483	Company By: <u>Wendy W. Parker</u> Authorized Representative Date Issued: <u>6/25/2014</u>	Please direct inquiries to: Debra A. Lewis 603.230.3332
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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

7/28/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Clark Insurance 2385 Congress Street Portland, ME 04104	CONTACT NAME: Susan Nason
	PHONE (A/C, No, Ext): (207) 523-2236 FAX (A/C, No): (207) 774-2994
	E-MAIL ADDRESS: snason@clarkinsurance.com
	INSURER(S) AFFORDING COVERAGE
	INSURER A: Peerless Indemnity NAIC # 18333
INSURED Ballantine Aviation Consulting Services, PLLC 66 Montrose Avenue Portland, ME 04103	INSURER B: XL Specialty Insurance Co
	INSURER C:
	INSURER D:
	INSURER E:
	INSURER F:

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:	X	BOP6426955	06/01/2014	06/01/2015	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 50,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 4,000,000 PRODUCTS - COMP/OP AGG \$ 4,000,000
A	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS		BOP6426955	06/01/2014	06/01/2015	COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ Included in GL \$ 2,000,000
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$					EACH OCCURRENCE \$ AGGREGATE \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input type="checkbox"/> N/A				PER STATUTE <input type="checkbox"/> OTH-ER <input type="checkbox"/> E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
B	Prof Liability		DPS9716404	06/01/2014	06/01/2015	Each Claim 1,000,000
B	Deductible - \$0		DPS9716404	06/01/2014	06/01/2015	Aggregate 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
For Professional Liability coverage, the aggregate limit is the total insurance available for all covered claims presented within the policy period. The limit will be reduced by payments of indemnity and expense.

The hired & non-owned auto liability limit is not a separate limit. It is included in the General Liability occurrence limit.

Certificate holder is an additional insured, when required by written contract with regards to general liability arising out of the ongoing operations of the insured. 30 Day notice of cancellation with a 10 day non-payment notice, will be provided in accordance with the policy terms and conditions. Project: SBG17-06-2014 and SBG17-07-2014

CERTIFICATE HOLDER CANCELLATION

State of New Hampshire Department of Transportation 7 Hazen Drive PO Box 483 Concord, NH 03302	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE <i>Susan O. Nason</i>

Application for Federal Assistance SF-424	
*1. Type of Submission: <input type="checkbox"/> Preapplication	*2. Type of Application * If Revision, select appropriate letter(s): <input checked="" type="checkbox"/> New
<input checked="" type="checkbox"/> Application	<input type="checkbox"/> Continuation *Other (Specify) _____
<input type="checkbox"/> Changed/Corrected Application	<input type="checkbox"/> Revision _____
RECEIVED JUL - 3 2014 NH AERONAUTICS	
*3. Date Received:	4. Applicant Identifier: SBG 17-07-2014
5a. Federal Entity Identifier:	*5b. Federal Award Identifier:
State Use Only:	
6. Date Received by State:	7. State Application Identifier: SBG 17-07-2014
8. APPLICANT INFORMATION:	
*a. Legal Name: Town of Whitefield, New Hampshire	
*b. Employer/Taxpayer Identification Number (EIN/TIN): 02-6000971	*c. Organizational DUNS: 968580738
d. Address:	
*Street 1:	<u>5 Airport Road</u>
Street 2:	_____
*City:	<u>Whitefield</u>
County:	_____
*State:	<u>NH</u>
Province:	_____
*Country:	<u>United States</u>
*Zip / Postal Code	<u>03598</u>
e. Organizational Unit:	
Department Name: Airport	Division Name: Mount Washington Regional Airport
f. Name and contact information of person to be contacted on matters involving this application:	
Prefix: <u>Mr.</u>	*First Name: <u>Richard</u>
Middle Name: <u>D.</u>	
*Last Name: <u>Yarnold</u>	
Suffix: <u>PE</u>	
Title: <u>President</u>	
Organizational Affiliation: Ballantine Aviation Consulting Services, PLLC	
*Telephone Number: (207) 400-6037	Fax Number:
*Email: <u>bacs@maine.rr.com</u>	

Application for Federal Assistance SF-424

***9. Type of Applicant 1: Select Applicant Type:**

C. City or Township Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

*Other (Specify)

***10. Name of Federal Agency:**

Federal Aviation Administration

11. Catalog of Federal Domestic Assistance Number:

20.106 _____

CFDA Title:

Airport Improvement Program

12. Funding Opportunity Number:

Title:

13. Competition Identification Number:

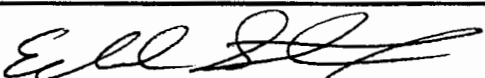
Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Coos County, NH

***15. Descriptive Title of Applicant's Project:**

1. Phase 2 Airspace Obstruction Analysis and Airport Safety Improvements Study
2. Update Airport Facility Storm Water Pollution Prevention Plan (SWPPP)

Application for Federal Assistance SF-424	
16. Congressional Districts Of:	
*a. Applicant: NH-002	*b. Program/Project: NH-002
Attach an additional list of Program/Project Congressional Districts if needed.	
17. Proposed Project:	
*a. Start Date: August, 2014	*b. End Date: July, 2015
18. Estimated Funding (\$):	
*a. Federal	\$ 75,816.00 ✓
*b. Applicant	\$ 4,212.00 ✓
*c. State	\$ 4,212.00 ✓
*d. Local	
*e. Other	
*f. Program Income	
*g. TOTAL	\$84,240.00 ✓
*19. Is Application Subject to Review By State Under Executive Order 12372 Process?	
<input type="checkbox"/> a. This application was made available to the State under the Executive Order 12372 Process for review on _____.	
<input type="checkbox"/> b. Program is subject to E.O. 12372 but has not been selected by the State for review.	
<input checked="" type="checkbox"/> c. Program is not covered by E. O. 12372	
*20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation.)	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
21. *By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U. S. Code, Title 218, Section 1001)	
<input checked="" type="checkbox"/> ** I AGREE	
** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.	
Authorized Representative:	
Prefix: Mr.	*First Name: Edward
Middle Name:	
*Last Name: Stevens	
Suffix:	
*Title: Airport Manager/Chairman, Airport Commission	
*Telephone Number: (603) 837-9532	Fax Number: (603) 837-3389
* Email: mwra.chairman@gmail.com	
*Signature of Authorized Representative: 	*Date Signed: June 27, 2014

Application for Federal Assistance SF-424

***Applicant Federal Debt Delinquency Explanation**

The following should contain an explanation if the Applicant organization is delinquent of any Federal Debt.

PART II
PROJECT APPROVAL INFORMATION

Item 1.
Does this assistance request require State, local, regional, or other priority rating?
 Yes No

Name of Governing Body:
Priority:

Item 2.
Does this assistance request require State, or local advisory, educational or health clearances?
 Yes No

Name of Agency or Board:
(Attach Documentation)

Item 3.
Does this assistance request require clearinghouse review in accordance with OMB Circular A-95?
 Yes No

(Attach Comments)

Item 4.
Does this assistance request require State, local, regional or other planning approval?
 Yes No

Name of Approving Agency:

Date: / /

Item 5.
Is the proposed project covered by an approved comprehensive plan?
 Yes No

Check one: State
Local
Regional

Location of Plan: FAA, NHDOT and Airport

Item 6.
Will the assistance requested serve a Federal installation?
 Yes No

Name of Federal Installation:
Federal Population benefiting from Project:

Item 7.
Will the assistance requested be on Federal land or installation?
 Yes No

Name of Federal Installation:
Location of Federal Land:
Percent of Project:

Item 8.
Will the assistance requested have an impact or effect on the environment?
 Yes No

See instruction for additional information to be provided

Item 9.
Will the assistance requested cause the displacement of individuals, families, businesses, or farms?
 Yes No

Number of:
Individuals. _____
Families. _____
Businesses. _____
Farms. _____

Item 10.
Is there other related Federal assistance on this project previous, pending, or anticipated?
 Yes No

See instructions for additional information to be provided.

PART III - BUDGET INFORMATION

SECTION A - BUDGET SUMMARY

Grant Program, Function Or Activity (a)	Federal Catalog No. (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Airport Improvement Program (AIP)	20.106	\$	\$	\$ 75,816.00	\$ 8,424.00	\$ 84,240.00
2.						
3.						
4.						
5. TOTALS		\$	\$	\$ 75,816.00	\$ 8,424.00	\$ 84,240.00

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	Grant Program, Function or Activity				Total
	AIP (1)	(2)	(3)	(4)	(5)
a. Personnel	\$	\$	\$	\$	\$
b. Fringe Benefits					
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual	80,529.40				80,529.40
g. Construction					
h. Other (Sponsor Administration)	3,710.60				3,710.60
i. Total Direct Charges	84,240.00				84,240.00
j. Indirect Charges					
k. TOTALS	\$ 84,240.00	\$	\$	\$	\$ 84,240.00
l. Program Income	\$	\$	\$	\$	\$

SECTION C - NON-FEDERAL RESOURCES

(a) GRANT PROGRAM	(b) APPLICANT	(c) STATE	(d) OTHER SOURCES	(e) TOTALS
8. Airport Improvement Program	\$ 4,212.00	\$ 4,212.00	\$	\$ 8,424.00
9.				
10.				
11.				
12. TOTALS	\$ 4,212.00	\$ 4,212.00	\$	\$ 8,424.00

SECTION D - FORECASTED CASH NEEDS

	Total for 1 st Year	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
13. Federal	\$ 75,816.00	\$ 27,000.00	\$ 18,000.00	\$ 27,000.00	\$ 3,816.00
14. Non-Federal	8,424.00	3,000.00	2,000.00	3,000.00	424.00
15. TOTAL	\$ 84,240.00	\$ 30,000.00	\$ 20,000.00	\$ 30,000.00	\$ 4,240.00

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT

(a) GRANT PROGRAM	FUTURE FUNDING PERIODS (YEARS)			
	(b) FIRST	(c) SECOND	(d) THIRD	(e) FOURTH
16.	\$	\$	\$	\$
17.				
18.				
19.				
20. TOTALS	\$	\$	\$	\$

SECTION F - OTHER BUDGET INFORMATION

(Attach additional sheets if necessary)

21 Direct Charges:

N/A

22. Indirect Charges:

N/A

23. Remarks:

N/A

PART IV PROGRAM NARRATIVE (Attach per instruction)

PART IV
PROGRAM NARRATIVE
(Suggested Format)

DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

OMB NO. 2120-0569

PROJECT: 1) Phase 2 Airspace Obstruction Analysis and Airport Safety Improvements Study
2) Update Airport Facility Storm Water Pollution Prevention Plan

AIRPORT: Mount Washington Regional Airport; Whitefield, New Hampshire

1. Objective:

Primary: Enhance Airport operational safety by identifying and analyzing airspace obstructions. Finalize the Phase 1 technical document summarizing the airspace analyses and providing recommendations for the mitigation of existing and future obstructions by removal, marking and/or lighting

Secondary: Update the Airport facility storm water pollution prevention plan (SWPPP) to meet current EPA Clean Water Act regulations

See attached supplemental narrative for additional project details.

2. Benefits Anticipated:

Identify the locations, types and magnitude of airspace obstructions
Identify alternatives for removing, marking, and/or lighting airspace obstructions
Identify recommendations to be incorporated into future airport improvement projects
Provide an obstruction management guidance document to assist in safely operating and maintaining the Airport
Provide a storm water management guidance document to assist in preventing pollution from airport runoff

See attached supplemental narrative for additional project details.

3. Approach: *(See approved Scope of Work in Final Application)*

Conduct environmental services data collection and evaluation to support the Phase 1 project findings.
Update storm water pollution prevention plan (SWPPP).
Prepare technical report summarizing findings and providing obstruction mitigation recommendations.
Finalize the project documents after public presentation and input.

See attached supplemental narrative for additional project approach details.

4. Geographic Location:

The project will be conducted at the Mount Washington Regional Airport (HIE) and within its FAR Part 77 airspace.
As a regional airport, the geographic area that is served by the airport extends across several municipalities in Coos County and northern New Hampshire

See attached project location figure.

5. If Applicable, Provide Additional Information:

See attached supplemental narrative for additional project details.

6. Sponsor's Representative: *(include address & telephone number)*

Mr. Richard D. Yarnold, PE
Ballantine Aviation Consulting Services, PLLC
66 Montrose Avenue
Portland, ME 04103
(207) 400-6037
bacs@maine.rr.com

PART IV
PROJECT NARRATIVE

APPLICATION FOR FEDERAL ASSISTANCE

MOUNT WASHINGTON REGIONAL AIRPORT
WHITEFIELD, NEW HAMPSHIRE

1) PHASE 2 AIRSPACE OBSTRUCTION ANALYSIS
AND AIRPORT SAFETY IMPROVEMENTS STUDY

2) UPDATE AIRPORT STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

SBG 17-07-2014

Project Description

Phase 1 of this proposed two-phase planning project consists of a series of detailed airspace obstruction analyses of the existing and ultimate FAR Part 77 surfaces and of the TERPS visual area surfaces (VAS) that are associated with the Mount Washington Regional Airport's published instrument approach procedures. Additional obstruction analyses will be conducted for the Runway 10 precision approach path indicator (PAPI) obstacle clearance surface (OCS), the existing L-864 hazard beacons, and the airport rotating beacon. The results of these airspace obstruction analyses will be depicted on a set of easy-to-understand, color-coded drawings and will be summarized in a comprehensive technical report.

Phase 2 of this proposed project consists of a continuation of the Phase 1 project to finalize the Phase 1 documents and present them at a public meeting to solicit input and comments. Phase 2 of the project will include the environmental support services that will be necessary to finalize the Phase 1 documents. Phase 2 will also include the update of the Airport's storm water pollution prevention plan (SWPPP) and the update of the Airport's disadvantaged business enterprise (DBE) program.

Project Purpose

The primary purpose of this two-phase project is to enhance aviation safety at the Airport by determining if any manmade or vegetation obstructions exist within the Airport's protected airspace or within its numerous operational surfaces. The results of the airspace obstruction analyses will be summarized on a set of drawings and in a technical report which can be used by the Airport to prioritize its operation and maintenance activities.

The secondary purpose of this project is to update federally-mandated documents that are necessary for the Airport to maintain its compliance with federal regulations.

Project Benefits

This project will result in enhanced aviation safety and numerous benefits to the Airport and its users including:

- Identify the locations, types, and magnitude of airspace obstructions
- Identify areas of potential future obstructions due to tree growth
- Confirm which airspace areas are free of obstructions
- Obtain determinations of aviation hazard from the FAA

- Identify alternatives for eliminating and/or mitigating airspace obstructions
 - Identify recommendations to be incorporated into future airport improvement projects
 - Estimate the costs of obstruction removal and mitigation measures
 - Maintain instrument approach procedure (IAP) minimums
-
- Provide an obstruction management document for safely operating and maintaining the Airport
 - Update Airport facility SWPPP
 - Update Airport DBE program

Project Approach

The proposed project has been developed with the direct input and assistance of the Mount Washington Regional Airport Commission and the Town of Whitefield. The project will be conducted with the input and cooperation of the Airport Sponsor, Airport Commission, local pilots, the New Hampshire Department of Transportation Bureau of Aeronautics, and the Federal Aviation Administration. The project design team is identified in the attached Project Organization Chart.

Airspace Obstructions Analyses – Phases 1 and 2

Aerial photogrammetry mapping will be conducted using a 50-foot grid pattern to compile detailed point data within the Airport's airspace and its protected operational surfaces. The horizontal location and vertical elevation of objects within the Runway 10-28 primary surface, approach surfaces, and 7:1 transitional surfaces will be obtained using aerial photogrammetry. Beyond the limits of these surfaces, the aerial photogrammetry data will be supplemented by three-dimensional digital elevation models (DEM) of the ground overlaid with a range of tree heights up to 100 feet to simulate future tree growth.

The aerial photogrammetry and DEM data will be computer-analyzed to compare the location and elevation of objects to the overlying airspace surfaces. Objects will be evaluated to determine if they are hazards to air navigation and if they are in the vicinity of environmental resources. A point data summary report will be generated that lists all of the point data information including the degree of penetration of any obstructions. The airspace surfaces and point data will be depicted on ortho-rectified color aerial photographs as color-coded labels that coincide with the point data summary report. Environmental resources in the vicinity of airspace obstructions will also be depicted on the drawings.

A comprehensive technical report will be prepared which describes the airspace obstruction analysis process and the results of the analyses. The report will include the airspace analysis drawings and point data summary report as appendices. The technical report will use the analyses to prepare obstruction mitigation alternatives and recommendations including cost estimates to implement the recommended alternatives.

The aerial photogrammetry data will also be supplemented by localized topographic surveys including an airport infrastructure assessment field survey. The purpose of the infrastructure assessment survey is to determine the locations and conditions of the Airport's various infrastructure systems including underground and overhead utilities, drainage structures and directions of flow, and other detailed information that cannot be obtained by aerial photogrammetry methods. The findings of the field survey will provide the basis for an evaluation of the Airport's infrastructure systems and their ability to support the mitigation alternatives and recommendations of the technical report.

Electronic copies of the Phase 1 draft final airspace obstruction analysis project documents will be made available to the public for review and comment. The documents will also be presented at a public meeting to solicit public input and comment before finalizing the project documents under Phase 2.

Storm Water Pollution Prevention Plan

The Mount Washington Regional Airport's 2005 Storm Water Pollution Prevention Plan (SWPPP) will be updated to meet the current regulatory requirements of the U. S. Environmental Protection Agency (EPA) Clean Water Act. The changes will include updating the SWPPP team roster, the spill contact list, the spill procedures checklists, and the spill control measures. The SWPPP will be updated to include a current inventory of significant materials that are stored at the Airport and in the hangars and buildings located on Airport property. The SWPPP will be updated to include recommended best management practices (BMPs) to be used at the Airport for materials handling and storage procedures. The SWPPP's storm water flow drawing will be updated to depict new airport facilities that affect storm water flow directions, volumes and rates. The final SWPPP will be presented to Airport officials to describe and explain the required procedures for keeping the SWPPP up-to-date and for maintaining regulatory compliance at the Airport.

Project Schedule

The project will be conducted in two phases over a twelve month period. The following is a proposed schedule for the major milestones for Phase I and Phase 2:

Task	Phase I	Phase 2
Submit FAA Grant Applications	July 2014	July 2014
Receive FAA Grant Offers.....	July 2014	July 2014
Project Kick Off Meeting.....	September 2014	September 2014
Aerial Photogrammetry Mapping.....	September 2014	
Airport Infrastructure Assessment Field Survey	September 2014	
Airspace Obstruction Analyses.....	October 2014	
Environmental Data Collection and Coordination		October 2014
Draft Airspace Obstruction Analyses Drawings.....	November 2014	
Update SWPPP		November 2014
Update DBE Program.....		November 2014
Airport Infrastructure Assessment Report.....	December 2014	
Draft Technical Report.....		January 2015
Project Documents Review Period.....	February 2015	February 2015
Draft Final Airspace Obstruction Analyses Drawings.....	March 2015	
Draft Final Technical Report		March 2015
Public Presentation Meeting		April 2015
Final Airspace Obstruction Analyses Drawings		May 2015
Final Technical Report		June 2015
Project Closeout	July 2015	July 2015

Project Cost

Task	Phase I	Phase 2
A. Project Development and Data Collection	\$ 59,819.60	
B. Airspace Obstruction Analyses	25,170.00	
C. Environmental Services	575.00	\$ 13,947.20
D. Airport Safety Enhancement Recommendations	32,114.00	38,510.40
E. Project Administration	<u>36,589.90</u>	
F. Public Presentation and Final Project Documents.....		\$ <u>28,071.80</u>
Total Engineering Fees	\$ 154,268.50	\$ 80,529.40
Sponsor Administration Costs.....	3,626.24	3,710.60
Total Project Cost	<u>\$ 157,894.74</u>	<u>\$ 84,240.00</u>

Project Location

The project will be conducted at the Mount Washington Regional Airport and within its FAR Part 77 airspace (see attached figure). As a regional airport, the geographic area that is served by the Airport extends across several municipalities in Coos County and northern New Hampshire.

Environmental Impact

This two-phase planning project will not result in any environmental impacts nor will it affect any historic properties. No local, state or federal environmental permits will be required. The issuance of planning grants is categorically excluded from environmental review under the National Environmental Policy Act (NEPA) as described in FAA Order 1050.1E *Environmental Impacts: Policies and Procedures*, Paragraph 307o, and there are no extraordinary circumstances associated with the proposed project (Paragraph 304).

Intergovernmental Coordination (Executive Order 12372)

Planning study projects are exempt from the Executive Order 12372 Intergovernmental Review Process.

Airport User Coordination

A copy of a "**NOTICE TO AIRPORT USERS**" will be posted in the Town Office and in the airport terminal building. The notice will also be distributed to airport tenants and businesses. Airport user comments will be kept on file by the Airport Manager and will be addressed and incorporated as appropriate during the course of project.

Disadvantaged Business Enterprise Program

The Mount Washington Regional Airport has a current disadvantaged business enterprise (DBE) program on file with the FAA/Civil Rights Division. This project will utilize a DBE subconsultant to provide aerial photogrammetry mapping services to fulfill the Sponsor's DBE goal percentage. The Airport will report its DBE accomplishments for this project to the FAA/Civil Rights Division by August 1, 2015.

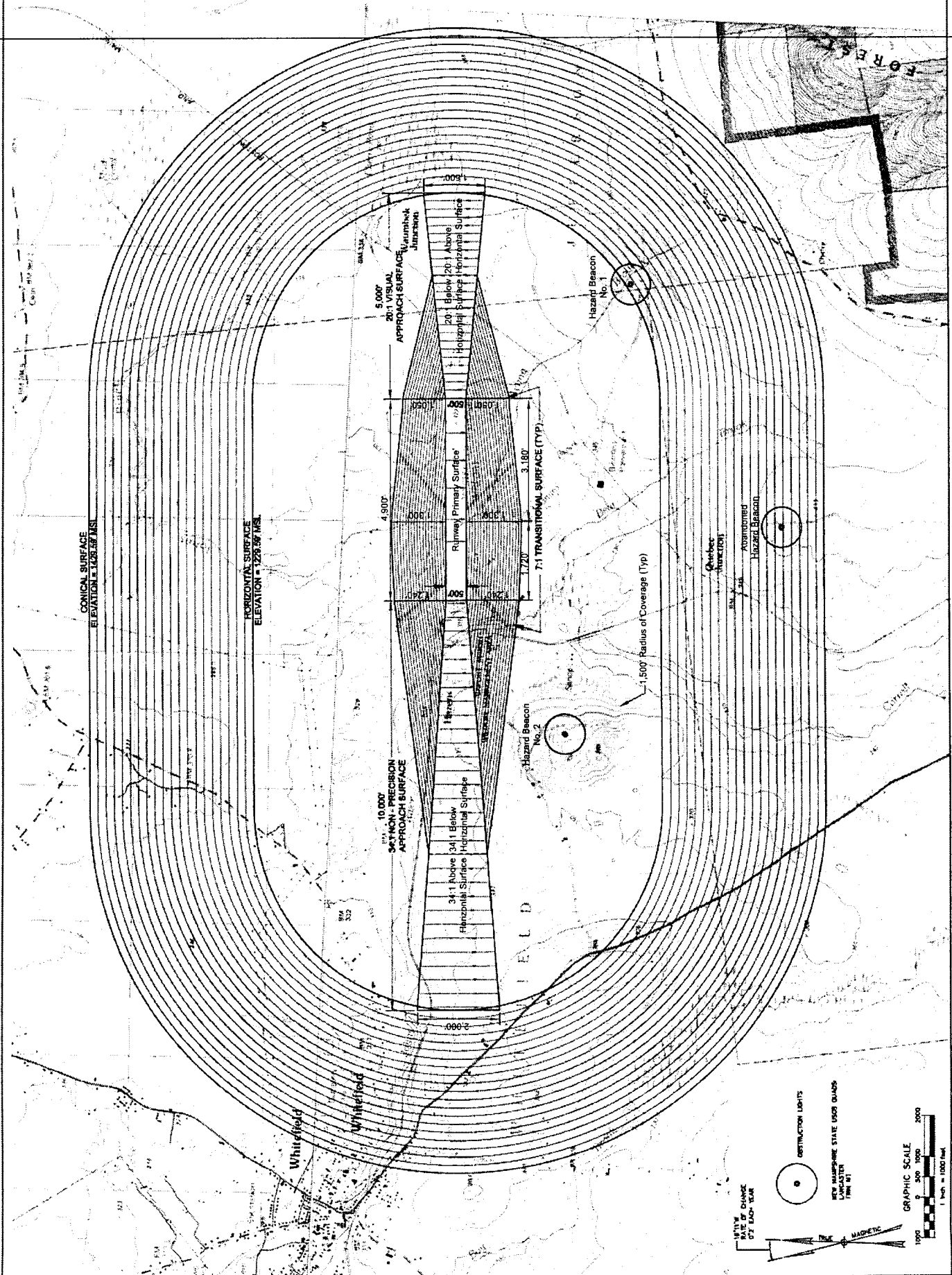
PROJECT LOCATION FIGURE

15	16	17	18	19	20

ULTIMATE FAR PART 77 AIRSPACE PLAN

MT. WASHINGTON REGIONAL AIRPORT
 AIRFIELD, NEW HAMPSHIRE

DATE	
BY	
CHECKED	
PROJECT NUMBER	
SHEET NUMBER	
DRAWING NUMBER	



1000' 500' 0' 500' 1000'

GRAPHIC SCALE
 1 inch = 1000 feet

OBSTRUCTION LIGHTS

NEW HAMPSHIRE STATE ROAD GUARDS
 (FORM 87)

MAGNETIC

**TOWN OF WHITEFIELD
NEW HAMPSHIRE**
TOWN SELECTSMEN

**MOUNT WASHINGTON
REGIONAL AIRPORT
COMMISSION**
CHAIRMAN AND AIRPORT MANAGER
Edward Stevens

**NHDOT BUREAU OF
AERONAUTICS**
SENIOR AVIATION PLANNER
Carol L. Niewolna, PE

**PROJECT MANAGEMENT
AND AIRPORT ENGINEERING**
BALLANTINE AVIATION CONSULTING SERVICES
Richard D. Yarnold, PE

FAA
SUBJECT MATTER EXPERTS

**AIRSPACE
ANALYSES**

COLBY COMPANY ENGINEERING
Brad Van Dam

ENVIRONMENTAL

ECO ENVIRONMENTAL SOLUTIONS
Christopher Spaulding, CWS

**SURVEYING AND CIVIL
ENGINEERING**

HORIZONS ENGINEERING
Andrew Nadeau, PLS

**AERIAL
PHOTOGRAMMETRY**

KAPPA MAPPING (DBI)
Bruce Barry

SBG 17-07-2014
PROJECT ORGANIZATION CHART

EXHIBIT "A" PROPERTY MAP CERTIFICATION

I HEREBY CERTIFY THAT THE EXHIBIT "A" PROPERTY MAP
DATED AUGUST 13, 2008, AND ATTACHED TO THE GRANT
AGREEMENT FOR SBG PROJECT NO. 17-03-2010
REFLECTS THE CURRENT INFORMATION AS OF THIS DATE.

THE ABOVE MENTIONED EXHIBIT "A" IS, THEREFORE,
INCORPORATED INTO THIS PROJECT APPLICATION BY REFERENCE AND
MADE A PART HEREOF.

DATE: JUNE 27, 2014

Town of Whitefield, NH

NAME OF SPONSOR



SIGNATURE

BY EDWARD STEVENS

TITLE AIRPORT MANAGER/CHAIRMAN

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

AIRPORT IMPROVEMENT PROGRAM
SPONSOR CERTIFICATION

DRUG-FREE WORKPLACE

Town of Whitefield, NH

(Sponsor)

Mount Washington Regional

(Airport)

SBG 17-07-2014

(Project Number)

Description of Work:

1. Airspace Obstruction Analysis and Airport Safety Improvements Study - Phase 2
2. Update Airport Facility Storm Water Pollution Prevention Plan

Title 49, United States Code, section 47105(d), authorizes the Secretary to require certification from the sponsor that it will comply with the statutory and administrative requirements in carrying out a project under the Airport Improvement Program (AIP). General requirements on the drug-free workplace within Federal grant programs are described in Title 49, Code of Federal Regulations, Part 29. Sponsors are required to certify they will be, or will continue to provide, a drug-free workplace in accordance with the regulation. The AIP project grant agreement contains specific assurances on the Drug-Free Workplace Act of 1988.

Except for the certified items below marked not applicable (N/A), the list includes major requirements for this aspect of project implementation, although it is not comprehensive, nor does it relieve the sponsor from fully complying with all applicable statutory and administrative standards.

	Yes	No	N/A
1. A statement has been (will be) published notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the sponsor's workplace, and specifying the actions to be taken against employees for violation of such prohibition.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. An ongoing drug-free awareness program has been (will be) established to inform employees about:			
a. The dangers of drug abuse in the workplace;			
b. The sponsor's policy of maintaining a drug-free workplace;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Any available drug counseling, rehabilitation, and employee assistance programs; and			
d. The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace.			
3. Each employee to be engaged in the performance of the work has been (will be) given a copy of the statement required within item 1 above.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Employees have been (will be) notified in the statement required by item 1 above that, as a condition employment under the grant, the employee will:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a. Abide by the terms of the statement; and			

- | | Yes | No | N/A |
|---|-------------------------------------|--------------------------|--------------------------|
| b. Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction. | | | |
| 5. The FAA will be notified in writing within ten calendar days after receiving notice under item 4b above from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title of the employee, to the FAA. Notices shall include the project number of each affected grant. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. One of the following actions will be taken within 30 calendar days of receiving a notice under item 4b above with respect to any employee who is so convicted: | | | |
| a. Take appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Require such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency. | | | |
| 7. A good faith effort will be made to continue to maintain a drug-free workplace through implementation of items 1 through 6 above. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

I have prepared documentation attached hereto with site(s) for performance of work (street address, city, county, state, zip code). There are no such workplaces that are not identified in the attachment. I have prepared additional documentation for any above items marked "no" and attached it hereto. I certify that, for the project identified herein, responses to the forgoing items are accurate as marked and attachments are correct and complete.

Town of Whitefield, NH

(Name of Sponsor)



(Signature of Sponsor's Designated Official Representative)

Edward Stevens

(Typed Name of Sponsor's Designated Official Representative)

Airport Manager/Chairman, Airport Commission

(Typed Title of Sponsor's Designated Official Representative)

June 27, 2014

(Date)

CERTIFICATION REGARDING DRUG-FREE WORKPLACE REQUIREMENTS

Sites for the performance of work to be done in connection with the grant:

Mount Washington Regional Airport
5 Airport Road
Whitefield, NH 03598

Coos County

Ballantine Aviation Consulting Services, PLLC
66 Montrose Avenue
Portland, ME 04104

Cumberland County

Horizons Engineering, Inc.
34 School Street
Littleton, NH 03561

Grafton County

Colby Engineering Company, LLC
47A York Street
Portland, ME 04101

Cumberland County

ECO Environmental Solutions, LLC
1461 South Hemlock Road
Charlestown, NH 03603

Sullivan County

Kappa Mapping, Inc.
6 State Street, Suite 301
Bangor, ME 04401

Penobscot County

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

AIRPORT IMPROVEMENT PROGRAM
SPONSOR CERTIFICATION

SELECTION OF CONSULTANTS

Town of Whitefield, NH

(Sponsor)

Mount Washington Regional

(Airport)

SBG 17-07-2014

(Project Number)

Description of Work:

1. Airspace Obstruction Analysis and Airport Safety Improvements Study - Phase 2
2. Update Airport Facility Storm Water Pollution Prevention Plan

Title 49, United States Code, section 47105(d), authorizes the Secretary to require certification from the sponsor that it will comply with the statutory and administrative requirements in carrying out a project under the Airport Improvement Program (AIP). General standards for selection of consultant services within Federal grant programs are described in Title 49, Code of Federal Regulations (CFR), Part 18.36. Sponsors may use other qualifications-based procedures provided they are equivalent to specific standards in 49 CFR 18 and FAA Advisory Circular 150/5100-14, Architectural, Engineering, and Planning Consultant Services for Airport Grant Projects.

Except for the certified items below marked not applicable (N/A), the list includes major requirements for this aspect of project implementation, although it is not comprehensive, nor does it relieve the sponsor from fully complying with all applicable statutory and administrative standard.

	Yes	No	N/A
1. Solicitations were or will be made to ensure fair and open competition from a wide area of interest.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Consultants were or will be selected using competitive procedures based on qualifications, experience, and disadvantaged enterprise requirements with the fees determined through negotiations.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. A record of negotiations has been or will be prepared reflecting considerations involved in the establishment of fees, which are not significantly above the sponsor's independent cost estimate.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. If engineering or other services are to be performed by sponsor force account personnel, prior approval was or will be obtained from the FAA.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. The consultant services contracts clearly establish or will clearly establish the scope of work and delineate the division of responsibilities between all parties engaged in carrying out elements of the project.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Costs associated with work ineligible for AIP funding are or will be clearly identified and separated from eligible items in solicitations, contracts, and related project documents.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No	N/A
7. Mandatory contact provisions for grant-assisted contracts have been or will be included in consultant services contracts.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. The cost-plus-percentage-of-cost methods of contracting prohibited under Federal standards were not or will not be used.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. If the services being procured cover more than the single grant project referenced in this certification, the scope of work was or will be specifically described in the advertisement, and future work will not be initiated beyond five years.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I certify, for the project identified herein, responses to the forgoing items are accurate as marked and have prepared documentation attached hereto for any item marked "no" that is correct and complete.

Town of Whitefield, NH

(Name of Sponsor)



(Signature of Sponsor's Designated Official Representative)

Edward Stevens

(Typed Name of Sponsor's Designated Official Representative)

Airport Manager/Commission Chairman

(Typed Title of Sponsor's Designated Official Representative)

June 27, 2014

(Date)

Certification of Contracts, Grants, Loans, and Cooperative Agreements


The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by, or on behalf of, the undersigned, to any person for influencing, or attempting to influence, an officer or employee of an agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all sub awards at all tiers (including subcontracts, subgrants and contracts under grants, loans, and cooperative agreements), and that all subrecipients shall certify and disclose accordingly.

This certification is a material representative of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

Date: June 27, 2014

Town of Whitefield, New Hampshire
Name of Airport Sponsor


Signature of Authorized Official

Airport Manager/Commission Chairman
Title of Authorized Official



ASSURANCES

Airport Sponsors

A. General.

1. These assurances shall be complied with in the performance of grant agreements for airport development, airport planning, and noise compatibility program grants for airport sponsors.
2. These assurances are required to be submitted as part of the project application by sponsors requesting funds under the provisions of Title 49, U.S.C., subtitle VII, as amended. As used herein, the term "public agency sponsor" means a public agency with control of a public-use airport; the term "private sponsor" means a private owner of a public-use airport; and the term "sponsor" includes both public agency sponsors and private sponsors.
3. Upon acceptance of this grant offer by the sponsor, these assurances are incorporated in and become part of this grant agreement.

B. Duration and Applicability.

1. **Airport development or Noise Compatibility Program Projects Undertaken by a Public Agency Sponsor.**

The terms, conditions and assurances of this grant agreement shall remain in full force and effect throughout the useful life of the facilities developed or equipment acquired for an airport development or noise compatibility program project, or throughout the useful life of the project items installed within a facility under a noise compatibility program project, but in any event not to exceed twenty (20) years from the date of acceptance of a grant offer of Federal funds for the project. However, there shall be no limit on the duration of the assurances regarding Exclusive Rights and Airport Revenue so long as the airport is used as an airport. There shall be no limit on the duration of the terms, conditions, and assurances with respect to real property acquired with federal funds. Furthermore, the duration of the Civil Rights assurance shall be specified in the assurances.

2. **Airport Development or Noise Compatibility Projects Undertaken by a Private Sponsor.**

The preceding paragraph 1 also applies to a private sponsor except that the useful life of project items installed within a facility or the useful life of the facilities developed or equipment acquired under an airport development or noise compatibility program project shall be no less than ten (10) years from the date of acceptance of Federal aid for the project.

3. Airport Planning Undertaken by a Sponsor.

Unless otherwise specified in this grant agreement, only Assurances 1, 2, 3, 5, 6, 13, 18, 25, 30, 32, 33, and 34 in Section C apply to planning projects. The terms, conditions, and assurances of this grant agreement shall remain in full force and effect during the life of the project; there shall be no limit on the duration of the assurances regarding Airport Revenue so long as the airport is used as an airport.

C. Sponsor Certification.

The sponsor hereby assures and certifies, with respect to this grant that:

1. General Federal Requirements.

It will comply with all applicable Federal laws, regulations, executive orders, policies, guidelines, and requirements as they relate to the application, acceptance and use of Federal funds for this project including but not limited to the following:

Federal Legislation

- a. Title 49, U.S.C., subtitle VII, as amended.
- b. Davis-Bacon Act - 40 U.S.C. 276(a), et seq.¹
- c. Federal Fair Labor Standards Act - 29 U.S.C. 201, et seq.
- d. Hatch Act – 5 U.S.C. 1501, et seq.²
- e. Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 Title 42 U.S.C. 4601, et seq.^{1,2}
- f. National Historic Preservation Act of 1966 - Section 106 - 16 U.S.C. 470(f).¹
- g. Archeological and Historic Preservation Act of 1974 - 16 U.S.C. 469 through 469c.¹
- h. Native Americans Grave Repatriation Act - 25 U.S.C. Section 3001, et seq.
- i. Clean Air Act, P.L. 90-148, as amended.
- j. Coastal Zone Management Act, P.L. 93-205, as amended.
- k. Flood Disaster Protection Act of 1973 - Section 102(a) - 42 U.S.C. 4012a.¹
- l. Title 49, U.S.C., Section 303, (formerly known as Section 4(f))
- m. Rehabilitation Act of 1973 - 29 U.S.C. 794.
- n. Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
- o. Americans with Disabilities Act of 1990, as amended, (42 U.S.C. § 12101 et seq.), prohibits discrimination on the basis of disability).
- p. Age Discrimination Act of 1975 - 42 U.S.C. 6101, et seq.
- q. American Indian Religious Freedom Act, P.L. 95-341, as amended.
- r. Architectural Barriers Act of 1968 -42 U.S.C. 4151, et seq.¹
- s. Power plant and Industrial Fuel Use Act of 1978 - Section 403- 2 U.S.C. 8373.¹
- t. Contract Work Hours and Safety Standards Act - 40 U.S.C. 327, et seq.¹
- u. Copeland Anti-kickback Act - 18 U.S.C. 874.1
- v. National Environmental Policy Act of 1969 - 42 U.S.C. 4321, et seq.¹
- w. Wild and Scenic Rivers Act, P.L. 90-542, as amended.
- x. Single Audit Act of 1984 - 31 U.S.C. 7501, et seq.²
- y. Drug-Free Workplace Act of 1988 - 41 U.S.C. 702 through 706.

- z. The Federal Funding Accountability and Transparency Act of 2006, as amended (Pub. L. 109-282, as amended by section 6202 of Pub. L. 110-252).
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Executive Orders

- a. Executive Order 11246 - Equal Employment Opportunity¹
- b. Executive Order 11990 - Protection of Wetlands
- c. Executive Order 11998 – Flood Plain Management
- d. Executive Order 12372 - Intergovernmental Review of Federal Programs
- e. Executive Order 12699 - Seismic Safety of Federal and Federally Assisted New Building Construction¹
- f. Executive Order 12898 - Environmental Justice

Federal Regulations

- a. 2 CFR Part 180 - OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement).
- b. 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards. [OMB Circular A-87 Cost Principles Applicable to Grants and Contracts with State and Local Governments, and OMB Circular A-133 - Audits of States, Local Governments, and Non-Profit Organizations].^{4, 5, 6}
- c. 2 CFR Part 1200 – Nonprocurement Suspension and Debarment
- d. 14 CFR Part 13 - Investigative and Enforcement Procedures 14 CFR Part 16 - Rules of Practice For Federally Assisted Airport Enforcement Proceedings.
- e. 14 CFR Part 150 - Airport noise compatibility planning.
- f. 28 CFR Part 35- Discrimination on the Basis of Disability in State and Local Government Services.
- g. 28 CFR § 50.3 - U.S. Department of Justice Guidelines for Enforcement of Title VI of the Civil Rights Act of 1964.
- h. 29 CFR Part 1 - Procedures for predetermination of wage rates.¹
- i. 29 CFR Part 3 - Contractors and subcontractors on public building or public work financed in whole or part by loans or grants from the United States.¹
- j. 29 CFR Part 5 - Labor standards provisions applicable to contracts covering federally financed and assisted construction (also labor standards provisions applicable to non-construction contracts subject to the Contract Work Hours and Safety Standards Act).¹
- k. 41 CFR Part 60 - Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor (Federal and federally assisted contracting requirements).¹
- l. 49 CFR Part 18 - Uniform administrative requirements for grants and cooperative agreements to state and local governments.³
- m. 49 CFR Part 20 - New restrictions on lobbying.
- n. 49 CFR Part 21 – Nondiscrimination in federally-assisted programs of the Department of Transportation - effectuation of Title VI of the Civil Rights Act of 1964.
- o. 49 CFR Part 23 - Participation by Disadvantage Business Enterprise in Airport Concessions.

- p. 49 CFR Part 24 – Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally Assisted Programs.^{1 2}
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- q. 49 CFR Part 26 – Participation by Disadvantaged Business Enterprises in Department of Transportation Programs.
- r. 49 CFR Part 27 – Nondiscrimination on the Basis of Handicap in Programs and Activities Receiving or Benefiting from Federal Financial Assistance.¹
- s. 49 CFR Part 28 – Enforcement of Nondiscrimination on the Basis of Handicap in Programs or Activities conducted by the Department of Transportation.
- t. 49 CFR Part 30 - Denial of public works contracts to suppliers of goods and services of countries that deny procurement market access to U.S. contractors.
- u. 49 CFR Part 32 – Governmentwide Requirements for Drug-Free Workplace (Financial Assistance)
- v. 49 CFR Part 37 – Transportation Services for Individuals with Disabilities (ADA).
- w. 49 CFR Part 41 - Seismic safety of Federal and federally assisted or regulated new building construction.

Specific Assurances

Specific assurances required to be included in grant agreements by any of the above laws, regulations or circulars are incorporated by reference in this grant agreement.

Footnotes to Assurance C.1.

¹ These laws do not apply to airport planning sponsors.

² These laws do not apply to private sponsors.

³ 49 CFR Part 18 and 2 CFR Part 200 contain requirements for State and Local Governments receiving Federal assistance. Any requirement levied upon State and Local Governments by this regulation and circular shall also be applicable to private sponsors receiving Federal assistance under Title 49, United States Code.

⁴ On December 26, 2013 at 78 FR 78590, the Office of Management and Budget (OMB) issued the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards in 2 CFR Part 200. 2 CFR Part 200 replaces and combines the former Uniform Administrative Requirements for Grants (OMB Circular A-102 and Circular A-110 or 2 CFR Part 215 or Circular) as well as the Cost Principles (Circulars A-21 or 2 CFR part 220; Circular A-87 or 2 CFR part 225; and A-122, 2 CFR part 230). Additionally it replaces Circular A-133 guidance on the Single Annual Audit. In accordance with 2 CFR section 200.110, the standards set forth in Part 200 which affect administration of Federal awards issued by Federal agencies become effective once implemented by Federal agencies or when any future amendment to this Part becomes final. Federal agencies, including the Department of Transportation, must implement the policies and procedures applicable to Federal awards by promulgating a regulation to be effective by December 26, 2014 unless different provisions are required by statute or approved by OMB.

⁵ Cost principles established in 2 CFR part 200 subpart E must be used as guidelines for determining the eligibility of specific types of expenses.

⁶ Audit requirements established in 2 CFR part 200 subpart F are the guidelines for audits.

2. Responsibility and Authority of the Sponsor.

a. Public Agency Sponsor:

It has legal authority to apply for this grant, and to finance and carry out the proposed project; that a resolution, motion or similar action has been duly adopted or passed as an official act of the applicant's governing body authorizing the filing of the application, including all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the applicant to act in connection with the application and to provide such additional information as may be required.

b. Private Sponsor:

It has legal authority to apply for this grant and to finance and carry out the proposed project and comply with all terms, conditions, and assurances of this grant agreement. It shall designate an official representative and shall in writing direct and authorize that person to file this application, including all understandings and assurances contained therein; to act in connection with this application; and to provide such additional information as may be required.

3. Sponsor Fund Availability.

It has sufficient funds available for that portion of the project costs which are not to be paid by the United States. It has sufficient funds available to assure operation and maintenance of items funded under this grant agreement which it will own or control.

4. Good Title.

- a. It, a public agency or the Federal government, holds good title, satisfactory to the Secretary, to the landing area of the airport or site thereof, or will give assurance satisfactory to the Secretary that good title will be acquired.
- b. For noise compatibility program projects to be carried out on the property of the sponsor, it holds good title satisfactory to the Secretary to that portion of the property upon which Federal funds will be expended or will give assurance to the Secretary that good title will be obtained.

5. Preserving Rights and Powers.

- a. It will not take or permit any action which would operate to deprive it of any of the rights and powers necessary to perform any or all of the terms, conditions, and assurances in this grant agreement without the written approval of the Secretary, and will act promptly to acquire, extinguish or modify any outstanding rights or claims of right of others which would interfere with such performance by the sponsor. This shall be done in a manner acceptable to the Secretary.

- b. It will not sell, lease, encumber, or otherwise transfer or dispose of any part of its title or other interests in the property shown on Exhibit A to this application or, for a noise compatibility program project, that portion of the property upon which Federal funds have been expended, for the duration of the terms, conditions, and assurances in this grant agreement without approval by the Secretary. If the transferee is found by the Secretary to be eligible under Title 49, United States Code, to assume the obligations of this grant agreement and to have the power, authority, and financial resources to carry out all such obligations, the sponsor shall insert in the contract or document transferring or disposing of the sponsor's interest, and make binding upon the transferee all of the terms, conditions, and assurances contained in this grant agreement.
- c. For all noise compatibility program projects which are to be carried out by another unit of local government or are on property owned by a unit of local government other than the sponsor, it will enter into an agreement with that government. Except as otherwise specified by the Secretary, that agreement shall obligate that government to the same terms, conditions, and assurances that would be applicable to it if it applied directly to the FAA for a grant to undertake the noise compatibility program project. That agreement and changes thereto must be satisfactory to the Secretary. It will take steps to enforce this agreement against the local government if there is substantial non-compliance with the terms of the agreement.
- d. For noise compatibility program projects to be carried out on privately owned property, it will enter into an agreement with the owner of that property which includes provisions specified by the Secretary. It will take steps to enforce this agreement against the property owner whenever there is substantial non-compliance with the terms of the agreement.
- e. If the sponsor is a private sponsor, it will take steps satisfactory to the Secretary to ensure that the airport will continue to function as a public-use airport in accordance with these assurances for the duration of these assurances.
- f. If an arrangement is made for management and operation of the airport by any agency or person other than the sponsor or an employee of the sponsor, the sponsor will reserve sufficient rights and authority to insure that the airport will be operated and maintained in accordance Title 49, United States Code, the regulations and the terms, conditions and assurances in this grant agreement and shall insure that such arrangement also requires compliance therewith.
- g. Sponsors of commercial service airports will not permit or enter into any arrangement that results in permission for the owner or tenant of a property used as a residence, or zoned for residential use, to taxi an aircraft between that property and any location on airport. Sponsors of general aviation airports entering into any arrangement that results in permission for the owner of residential real property adjacent to or near the airport must comply with the requirements of Sec. 136 of Public Law 112-95 and the sponsor assurances.

6. Consistency with Local Plans.

The project is reasonably consistent with plans (existing at the time of submission of this application) of public agencies that are authorized by the State in which the project is located to plan for the development of the area surrounding the airport.

7. Consideration of Local Interest.

It has given fair consideration to the interest of communities in or near where the project may be located.

8. Consultation with Users.

In making a decision to undertake any airport development project under Title 49, United States Code, it has undertaken reasonable consultations with affected parties using the airport at which project is proposed.

9. Public Hearings.

In projects involving the location of an airport, an airport runway, or a major runway extension, it has afforded the opportunity for public hearings for the purpose of considering the economic, social, and environmental effects of the airport or runway location and its consistency with goals and objectives of such planning as has been carried out by the community and it shall, when requested by the Secretary, submit a copy of the transcript of such hearings to the Secretary. Further, for such projects, it has on its management board either voting representation from the communities where the project is located or has advised the communities that they have the right to petition the Secretary concerning a proposed project.

10. Metropolitan Planning Organization.

In projects involving the location of an airport, an airport runway, or a major runway extension at a medium or large hub airport, the sponsor has made available to and has provided upon request to the metropolitan planning organization in the area in which the airport is located, if any, a copy of the proposed amendment to the airport layout plan to depict the project and a copy of any airport master plan in which the project is described or depicted.

11. Pavement Preventive Maintenance.

With respect to a project approved after January 1, 1995, for the replacement or reconstruction of pavement at the airport, it assures or certifies that it has implemented an effective airport pavement maintenance-management program and it assures that it will use such program for the useful life of any pavement constructed, reconstructed or repaired with Federal financial assistance at the airport. It will provide such reports on pavement condition and pavement management programs as the Secretary determines may be useful.

12. Terminal Development Prerequisites.

For projects which include terminal development at a public use airport, as defined in Title 49, it has, on the date of submittal of the project grant application, all the safety equipment required for certification of such airport under section 44706 of Title 49, United States Code, and all the security equipment required by rule or regulation, and

has provided for access to the passenger enplaning and deplaning area of such airport to passengers enplaning and deplaning from aircraft other than air carrier aircraft.

13. Accounting System, Audit, and Record Keeping Requirements.

- a. It shall keep all project accounts and records which fully disclose the amount and disposition by the recipient of the proceeds of this grant, the total cost of the project in connection with which this grant is given or used, and the amount or nature of that portion of the cost of the project supplied by other sources, and such other financial records pertinent to the project. The accounts and records shall be kept in accordance with an accounting system that will facilitate an effective audit in accordance with the Single Audit Act of 1984.
- b. It shall make available to the Secretary and the Comptroller General of the United States, or any of their duly authorized representatives, for the purpose of audit and examination, any books, documents, papers, and records of the recipient that are pertinent to this grant. The Secretary may require that an appropriate audit be conducted by a recipient. In any case in which an independent audit is made of the accounts of a sponsor relating to the disposition of the proceeds of a grant or relating to the project in connection with which this grant was given or used, it shall file a certified copy of such audit with the Comptroller General of the United States not later than six (6) months following the close of the fiscal year for which the audit was made.

14. Minimum Wage Rates.

It shall include, in all contracts in excess of \$2,000 for work on any projects funded under this grant agreement which involve labor, provisions establishing minimum rates of wages, to be predetermined by the Secretary of Labor, in accordance with the Davis-Bacon Act, as amended (40 U.S.C. 276a-276a-5), which contractors shall pay to skilled and unskilled labor, and such minimum rates shall be stated in the invitation for bids and shall be included in proposals or bids for the work.

15. Veteran's Preference.

It shall include in all contracts for work on any project funded under this grant agreement which involve labor, such provisions as are necessary to insure that, in the employment of labor (except in executive, administrative, and supervisory positions), preference shall be given to Vietnam era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns owned and controlled by disabled veterans as defined in Section 47112 of Title 49, United States Code. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates.

16. Conformity to Plans and Specifications.

It will execute the project subject to plans, specifications, and schedules approved by the Secretary. Such plans, specifications, and schedules shall be submitted to the Secretary prior to commencement of site preparation, construction, or other performance under this grant agreement, and, upon approval of the Secretary, shall be incorporated into this grant agreement. Any modification to the approved plans,

specifications, and schedules shall also be subject to approval of the Secretary, and incorporated into this grant agreement.

17. Construction Inspection and Approval.

It will provide and maintain competent technical supervision at the construction site throughout the project to assure that the work conforms to the plans, specifications, and schedules approved by the Secretary for the project. It shall subject the construction work on any project contained in an approved project application to inspection and approval by the Secretary and such work shall be in accordance with regulations and procedures prescribed by the Secretary. Such regulations and procedures shall require such cost and progress reporting by the sponsor or sponsors of such project as the Secretary shall deem necessary.

18. Planning Projects.

In carrying out planning projects:

- a. It will execute the project in accordance with the approved program narrative contained in the project application or with the modifications similarly approved.
- b. It will furnish the Secretary with such periodic reports as required pertaining to the planning project and planning work activities.
- c. It will include in all published material prepared in connection with the planning project a notice that the material was prepared under a grant provided by the United States.
- d. It will make such material available for examination by the public, and agrees that no material prepared with funds under this project shall be subject to copyright in the United States or any other country.
- e. It will give the Secretary unrestricted authority to publish, disclose, distribute, and otherwise use any of the material prepared in connection with this grant.
- f. It will grant the Secretary the right to disapprove the sponsor's employment of specific consultants and their subcontractors to do all or any part of this project as well as the right to disapprove the proposed scope and cost of professional services.
- g. It will grant the Secretary the right to disapprove the use of the sponsor's employees to do all or any part of the project.
- h. It understands and agrees that the Secretary's approval of this project grant or the Secretary's approval of any planning material developed as part of this grant does not constitute or imply any assurance or commitment on the part of the Secretary to approve any pending or future application for a Federal airport grant.

19. Operation and Maintenance.

- a. The airport and all facilities which are necessary to serve the aeronautical users of the airport, other than facilities owned or controlled by the United States, shall be operated at all times in a safe and serviceable condition and in accordance with the minimum standards as may be required or prescribed by applicable Federal,

state and local agencies for maintenance and operation. It will not cause or permit ~~any activity or action thereon which would interfere with its use for airport~~ purposes. It will suitably operate and maintain the airport and all facilities thereon or connected therewith, with due regard to climatic and flood conditions. Any proposal to temporarily close the airport for non-aeronautical purposes must first be approved by the Secretary. In furtherance of this assurance, the sponsor will have in effect arrangements for-

- 1) Operating the airport's aeronautical facilities whenever required;
 - 2) Promptly marking and lighting hazards resulting from airport conditions, including temporary conditions; and
 - 3) Promptly notifying airmen of any condition affecting aeronautical use of the airport. Nothing contained herein shall be construed to require that the airport be operated for aeronautical use during temporary periods when snow, flood or other climatic conditions interfere with such operation and maintenance. Further, nothing herein shall be construed as requiring the maintenance, repair, restoration, or replacement of any structure or facility which is substantially damaged or destroyed due to an act of God or other condition or circumstance beyond the control of the sponsor.
- b. It will suitably operate and maintain noise compatibility program items that it owns or controls upon which Federal funds have been expended.

20. Hazard Removal and Mitigation.

It will take appropriate action to assure that such terminal airspace as is required to protect instrument and visual operations to the airport (including established minimum flight altitudes) will be adequately cleared and protected by removing, lowering, relocating, marking, or lighting or otherwise mitigating existing airport hazards and by preventing the establishment or creation of future airport hazards.

21. Compatible Land Use.

It will take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. In addition, if the project is for noise compatibility program implementation, it will not cause or permit any change in land use, within its jurisdiction, that will reduce its compatibility, with respect to the airport, of the noise compatibility program measures upon which Federal funds have been expended.

22. Economic Nondiscrimination.

- a. It will make the airport available as an airport for public use on reasonable terms and without unjust discrimination to all types, kinds and classes of aeronautical activities, including commercial aeronautical activities offering services to the public at the airport.
- b. In any agreement, contract, lease, or other arrangement under which a right or privilege at the airport is granted to any person, firm, or corporation to conduct or

to engage in any aeronautical activity for furnishing services to the public at the airport, the sponsor will insert and enforce provisions requiring the contractor to-

- 1) furnish said services on a reasonable, and not unjustly discriminatory, basis to all users thereof, and
 - 2) charge reasonable, and not unjustly discriminatory, prices for each unit or service, provided that the contractor may be allowed to make reasonable and nondiscriminatory discounts, rebates, or other similar types of price reductions to volume purchasers.
- c. Each fixed-based operator at the airport shall be subject to the same rates, fees, rentals, and other charges as are uniformly applicable to all other fixed-based operators making the same or similar uses of such airport and utilizing the same or similar facilities.
 - d. Each air carrier using such airport shall have the right to service itself or to use any fixed-based operator that is authorized or permitted by the airport to serve any air carrier at such airport.
 - e. Each air carrier using such airport (whether as a tenant, non-tenant, or subtenant of another air carrier tenant) shall be subject to such nondiscriminatory and substantially comparable rules, regulations, conditions, rates, fees, rentals, and other charges with respect to facilities directly and substantially related to providing air transportation as are applicable to all such air carriers which make similar use of such airport and utilize similar facilities, subject to reasonable classifications such as tenants or non-tenants and signatory carriers and non-signatory carriers. Classification or status as tenant or signatory shall not be unreasonably withheld by any airport provided an air carrier assumes obligations substantially similar to those already imposed on air carriers in such classification or status.
 - f. It will not exercise or grant any right or privilege which operates to prevent any person, firm, or corporation operating aircraft on the airport from performing any services on its own aircraft with its own employees [including, but not limited to maintenance, repair, and fueling] that it may choose to perform.
 - g. In the event the sponsor itself exercises any of the rights and privileges referred to in this assurance, the services involved will be provided on the same conditions as would apply to the furnishing of such services by commercial aeronautical service providers authorized by the sponsor under these provisions.
 - h. The sponsor may establish such reasonable, and not unjustly discriminatory, conditions to be met by all users of the airport as may be necessary for the safe and efficient operation of the airport.
 - i. The sponsor may prohibit or limit any given type, kind or class of aeronautical use of the airport if such action is necessary for the safe operation of the airport or necessary to serve the civil aviation needs of the public.

23. Exclusive Rights.

~~It will permit no exclusive right for the use of the airport by any person providing, or intending to provide, aeronautical services to the public. For purposes of this paragraph, the providing of the services at an airport by a single fixed-based operator shall not be construed as an exclusive right if both of the following apply:~~

- a. It would be unreasonably costly, burdensome, or impractical for more than one fixed-based operator to provide such services, and
- b. If allowing more than one fixed-based operator to provide such services would require the reduction of space leased pursuant to an existing agreement between such single fixed-based operator and such airport. It further agrees that it will not, either directly or indirectly, grant or permit any person, firm, or corporation, the exclusive right at the airport to conduct any aeronautical activities, including, but not limited to charter flights, pilot training, aircraft rental and sightseeing, aerial photography, crop dusting, aerial advertising and surveying, air carrier operations, aircraft sales and services, sale of aviation petroleum products whether or not conducted in conjunction with other aeronautical activity, repair and maintenance of aircraft, sale of aircraft parts, and any other activities which because of their direct relationship to the operation of aircraft can be regarded as an aeronautical activity, and that it will terminate any exclusive right to conduct an aeronautical activity now existing at such an airport before the grant of any assistance under Title 49, United States Code.

24. Fee and Rental Structure.

It will maintain a fee and rental structure for the facilities and services at the airport which will make the airport as self-sustaining as possible under the circumstances existing at the particular airport, taking into account such factors as the volume of traffic and economy of collection. No part of the Federal share of an airport development, airport planning or noise compatibility project for which a grant is made under Title 49, United States Code, the Airport and Airway Improvement Act of 1982, the Federal Airport Act or the Airport and Airway Development Act of 1970 shall be included in the rate basis in establishing fees, rates, and charges for users of that airport.

25. Airport Revenues.

- a. All revenues generated by the airport and any local taxes on aviation fuel established after December 30, 1987, will be expended by it for the capital or operating costs of the airport; the local airport system; or other local facilities which are owned or operated by the owner or operator of the airport and which are directly and substantially related to the actual air transportation of passengers or property; or for noise mitigation purposes on or off the airport. The following exceptions apply to this paragraph:
 - 1) If covenants or assurances in debt obligations issued before September 3, 1982, by the owner or operator of the airport, or provisions enacted before September 3, 1982, in governing statutes controlling the owner or operator's financing, provide for the use of the revenues from any of the airport owner or

operator's facilities, including the airport, to support not only the airport but also the airport owner or operator's general debt obligations or other facilities, then this limitation on the use of all revenues generated by the airport (and, in the case of a public airport, local taxes on aviation fuel) shall not apply.

- 2) If the Secretary approves the sale of a privately owned airport to a public sponsor and provides funding for any portion of the public sponsor's acquisition of land, this limitation on the use of all revenues generated by the sale shall not apply to certain proceeds from the sale. This is conditioned on repayment to the Secretary by the private owner of an amount equal to the remaining unamortized portion (amortized over a 20-year period) of any airport improvement grant made to the private owner for any purpose other than land acquisition on or after October 1, 1996, plus an amount equal to the federal share of the current fair market value of any land acquired with an airport improvement grant made to that airport on or after October 1, 1996.
 - 3) Certain revenue derived from or generated by mineral extraction, production, lease, or other means at a general aviation airport (as defined at Section 47102 of title 49 United States Code), if the FAA determines the airport sponsor meets the requirements set forth in Sec. 813 of Public Law 112-95.
- b. As part of the annual audit required under the Single Audit Act of 1984, the sponsor will direct that the audit will review, and the resulting audit report will provide an opinion concerning, the use of airport revenue and taxes in paragraph (a), and indicating whether funds paid or transferred to the owner or operator are paid or transferred in a manner consistent with Title 49, United States Code and any other applicable provision of law, including any regulation promulgated by the Secretary or Administrator.
 - c. Any civil penalties or other sanctions will be imposed for violation of this assurance in accordance with the provisions of Section 47107 of Title 49, United States Code.

26. Reports and Inspections.

It will:

- a. submit to the Secretary such annual or special financial and operations reports as the Secretary may reasonably request and make such reports available to the public; make available to the public at reasonable times and places a report of the airport budget in a format prescribed by the Secretary;
- b. for airport development projects, make the airport and all airport records and documents affecting the airport, including deeds, leases, operation and use agreements, regulations and other instruments, available for inspection by any duly authorized agent of the Secretary upon reasonable request;
- c. for noise compatibility program projects, make records and documents relating to the project and continued compliance with the terms, conditions, and assurances of this grant agreement including deeds, leases, agreements, regulations, and other instruments, available for inspection by any duly authorized agent of the Secretary upon reasonable request; and

d. in a format and time prescribed by the Secretary, provide to the Secretary and ~~make available to the public following each of its fiscal years, an annual report~~ listing in detail:

- 1) all amounts paid by the airport to any other unit of government and the purposes for which each such payment was made; and
- 2) all services and property provided by the airport to other units of government and the amount of compensation received for provision of each such service and property.

27. Use by Government Aircraft.

It will make available all of the facilities of the airport developed with Federal financial assistance and all those usable for landing and takeoff of aircraft to the United States for use by Government aircraft in common with other aircraft at all times without charge, except, if the use by Government aircraft is substantial, charge may be made for a reasonable share, proportional to such use, for the cost of operating and maintaining the facilities used. Unless otherwise determined by the Secretary, or otherwise agreed to by the sponsor and the using agency, substantial use of an airport by Government aircraft will be considered to exist when operations of such aircraft are in excess of those which, in the opinion of the Secretary, would unduly interfere with use of the landing areas by other authorized aircraft, or during any calendar month that –

- a. Five (5) or more Government aircraft are regularly based at the airport or on land adjacent thereto; or
- b. The total number of movements (counting each landing as a movement) of Government aircraft is 300 or more, or the gross accumulative weight of Government aircraft using the airport (the total movement of Government aircraft multiplied by gross weights of such aircraft) is in excess of five million pounds.

28. Land for Federal Facilities.

It will furnish without cost to the Federal Government for use in connection with any air traffic control or air navigation activities, or weather-reporting and communication activities related to air traffic control, any areas of land or water, or estate therein, or rights in buildings of the sponsor as the Secretary considers necessary or desirable for construction, operation, and maintenance at Federal expense of space or facilities for such purposes. Such areas or any portion thereof will be made available as provided herein within four months after receipt of a written request from the Secretary.

29. Airport Layout Plan.

- a. It will keep up to date at all times an airport layout plan of the airport showing
 - 1) boundaries of the airport and all proposed additions thereto, together with the boundaries of all offsite areas owned or controlled by the sponsor for airport purposes and proposed additions thereto;
 - 2) the location and nature of all existing and proposed airport facilities and structures (such as runways, taxiways, aprons, terminal buildings, hangars and

roads), including all proposed extensions and reductions of existing airport facilities;

- 3) the location of all existing and proposed nonaviation areas and of all existing improvements thereon; and
 - 4) all proposed and existing access points used to taxi aircraft across the airport's property boundary. Such airport layout plans and each amendment, revision, or modification thereof, shall be subject to the approval of the Secretary which approval shall be evidenced by the signature of a duly authorized representative of the Secretary on the face of the airport layout plan. The sponsor will not make or permit any changes or alterations in the airport or any of its facilities which are not in conformity with the airport layout plan as approved by the Secretary and which might, in the opinion of the Secretary, adversely affect the safety, utility or efficiency of the airport.
- b. If a change or alteration in the airport or the facilities is made which the Secretary determines adversely affects the safety, utility, or efficiency of any federally owned, leased, or funded property on or off the airport and which is not in conformity with the airport layout plan as approved by the Secretary, the owner or operator will, if requested, by the Secretary (1) eliminate such adverse effect in a manner approved by the Secretary; or (2) bear all costs of relocating such property (or replacement thereof) to a site acceptable to the Secretary and all costs of restoring such property (or replacement thereof) to the level of safety, utility, efficiency, and cost of operation existing before the unapproved change in the airport or its facilities except in the case of a relocation or replacement of an existing airport facility due to a change in the Secretary's design standards beyond the control of the airport sponsor.

30. Civil Rights.

It will promptly take any measures necessary to ensure that no person in the United States shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in any activity conducted with, or benefiting from, funds received from this grant.

- a. Using the definitions of activity, facility and program as found and defined in §§ 21.23 (b) and 21.23 (e) of 49 CFR § 21, the sponsor will facilitate all programs, operate all facilities, or conduct all programs in compliance with all non-discrimination requirements imposed by, or pursuant to these assurances.
- b. Applicability
 - 1) Programs and Activities. If the sponsor has received a grant (or other federal assistance) for any of the sponsor's program or activities, these requirements extend to all of the sponsor's programs and activities.
 - 2) Facilities. Where it receives a grant or other federal financial assistance to construct, expand, renovate, remodel, alter or acquire a facility, or part of a facility, the assurance extends to the entire facility and facilities operated in connection therewith.

- 3) Real Property. Where the sponsor receives a grant or other Federal financial assistance in the form of, or for the acquisition of real property or an interest in real property, the assurance will extend to rights to space on, over, or under such property.

c. Duration.

The sponsor agrees that it is obligated to this assurance for the period during which Federal financial assistance is extended to the program, except where the Federal financial assistance is to provide, or is in the form of, personal property, or real property, or interest therein, or structures or improvements thereon, in which case the assurance obligates the sponsor, or any transferee for the longer of the following periods:

- 1) So long as the airport is used as an airport, or for another purpose involving the provision of similar services or benefits; or
- 2) So long as the sponsor retains ownership or possession of the property.

d. Required Solicitation Language. It will include the following notification in all solicitations for bids, Requests For Proposals for work, or material under this grant agreement and in all proposals for agreements, including airport concessions, regardless of funding source:

“The **(Name of Sponsor)**, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises and airport concession disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.”

e. Required Contract Provisions.

- 1) It will insert the non-discrimination contract clauses requiring compliance with the acts and regulations relative to non-discrimination in Federally-assisted programs of the DOT, and incorporating the acts and regulations into the contracts by reference in every contract or agreement subject to the non-discrimination in Federally-assisted programs of the DOT acts and regulations.
- 2) It will include a list of the pertinent non-discrimination authorities in every contract that is subject to the non-discrimination acts and regulations.
- 3) It will insert non-discrimination contract clauses as a covenant running with the land, in any deed from the United States effecting or recording a transfer of real property, structures, use, or improvements thereon or interest therein to a sponsor.
- 4) It will insert non-discrimination contract clauses prohibiting discrimination on the basis of race, color, national origin, creed, sex, age, or handicap as a

covenant running with the land, in any future deeds, leases, license, permits, or similar instruments entered into by the sponsor with other parties:

- a) For the subsequent transfer of real property acquired or improved under the applicable activity, project, or program; and
 - b) For the construction or use of, or access to, space on, over, or under real property acquired or improved under the applicable activity, project, or program.
- f. It will provide for such methods of administration for the program as are found by the Secretary to give reasonable guarantee that it, other recipients, sub-recipients, sub-grantees, contractors, subcontractors, consultants, transferees, successors in interest, and other participants of Federal financial assistance under such program will comply with all requirements imposed or pursuant to the acts, the regulations, and this assurance.
- g. It agrees that the United States has a right to seek judicial enforcement with regard to any matter arising under the acts, the regulations, and this assurance.

31. Disposal of Land.

- a. For land purchased under a grant for airport noise compatibility purposes, including land serving as a noise buffer, it will dispose of the land, when the land is no longer needed for such purposes, at fair market value, at the earliest practicable time. That portion of the proceeds of such disposition which is proportionate to the United States' share of acquisition of such land will be, at the discretion of the Secretary, (1) reinvested in another project at the airport, or (2) transferred to another eligible airport as prescribed by the Secretary. The Secretary shall give preference to the following, in descending order, (1) reinvestment in an approved noise compatibility project, (2) reinvestment in an approved project that is eligible for grant funding under Section 47117(e) of title 49 United States Code, (3) reinvestment in an approved airport development project that is eligible for grant funding under Sections 47114, 47115, or 47117 of title 49 United States Code, (4) transferred to an eligible sponsor of another public airport to be reinvested in an approved noise compatibility project at that airport, and (5) paid to the Secretary for deposit in the Airport and Airway Trust Fund. If land acquired under a grant for noise compatibility purposes is leased at fair market value and consistent with noise buffering purposes, the lease will not be considered a disposal of the land. Revenues derived from such a lease may be used for an approved airport development project that would otherwise be eligible for grant funding or any permitted use of airport revenue.
- b. For land purchased under a grant for airport development purposes (other than noise compatibility), it will, when the land is no longer needed for airport purposes, dispose of such land at fair market value or make available to the Secretary an amount equal to the United States' proportionate share of the fair market value of the land. That portion of the proceeds of such disposition which is proportionate to the United States' share of the cost of acquisition of such land will, (1) upon application to the Secretary, be reinvested or transferred to another

eligible airport as prescribed by the Secretary. The Secretary shall give preference to the following, in descending order: (1) reinvestment in an approved noise compatibility project, (2) reinvestment in an approved project that is eligible for grant funding under Section 47117(e) of title 49 United States Code, (3) reinvestment in an approved airport development project that is eligible for grant funding under Sections 47114, 47115, or 47117 of title 49 United States Code, (4) transferred to an eligible sponsor of another public airport to be reinvested in an approved noise compatibility project at that airport, and (5) paid to the Secretary for deposit in the Airport and Airway Trust Fund.

- c. Land shall be considered to be needed for airport purposes under this assurance if (1) it may be needed for aeronautical purposes (including runway protection zones) or serve as noise buffer land, and (2) the revenue from interim uses of such land contributes to the financial self-sufficiency of the airport. Further, land purchased with a grant received by an airport operator or owner before December 31, 1987, will be considered to be needed for airport purposes if the Secretary or Federal agency making such grant before December 31, 1987, was notified by the operator or owner of the uses of such land, did not object to such use, and the land continues to be used for that purpose, such use having commenced no later than December 15, 1989.
- d. Disposition of such land under (a) (b) or (c) will be subject to the retention or reservation of any interest or right therein necessary to ensure that such land will only be used for purposes which are compatible with noise levels associated with operation of the airport.

32. Engineering and Design Services.

It will award each contract, or sub-contract for program management, construction management, planning studies, feasibility studies, architectural services, preliminary engineering, design, engineering, surveying, mapping or related services with respect to the project in the same manner as a contract for architectural and engineering services is negotiated under Title IX of the Federal Property and Administrative Services Act of 1949 or an equivalent qualifications-based requirement prescribed for or by the sponsor of the airport.

33. Foreign Market Restrictions.

It will not allow funds provided under this grant to be used to fund any project which uses any product or service of a foreign country during the period in which such foreign country is listed by the United States Trade Representative as denying fair and equitable market opportunities for products and suppliers of the United States in procurement and construction.

34. Policies, Standards, and Specifications.

It will carry out the project in accordance with policies, standards, and specifications approved by the Secretary including but not limited to the advisory circulars listed in the Current FAA Advisory Circulars for AIP projects, dated 03-20-2014 (the latest approved version as of this grant offer) and included in this grant, and in accordance

with applicable state policies, standards, and specifications approved by the Secretary.

35. Relocation and Real Property Acquisition.

- a. It will be guided in acquiring real property, to the greatest extent practicable under State law, by the land acquisition policies in Subpart B of 49 CFR Part 24 and will pay or reimburse property owners for necessary expenses as specified in Subpart B.
- b. It will provide a relocation assistance program offering the services described in Subpart C and fair and reasonable relocation payments and assistance to displaced persons as required in Subpart D and E of 49 CFR Part 24.
- c. It will make available within a reasonable period of time prior to displacement, comparable replacement dwellings to displaced persons in accordance with Subpart E of 49 CFR Part 24.

36. Access By Intercity Buses.

The airport owner or operator will permit, to the maximum extent practicable, intercity buses or other modes of transportation to have access to the airport; however, it has no obligation to fund special facilities for intercity buses or for other modes of transportation.

37. Disadvantaged Business Enterprises.

The sponsor shall not discriminate on the basis of race, color, national origin or sex in the award and performance of any DOT-assisted contract covered by 49 CFR Part 26, or in the award and performance of any concession activity contract covered by 49 CFR Part 23. In addition, the sponsor shall not discriminate on the basis of race, color, national origin or sex in the administration of its DBE and ACDBE programs or the requirements of 49 CFR Parts 23 and 26. The sponsor shall take all necessary and reasonable steps under 49 CFR Parts 23 and 26 to ensure nondiscrimination in the award and administration of DOT-assisted contracts, and/or concession contracts. The sponsor's DBE and ACDBE programs, as required by 49 CFR Parts 26 and 23, and as approved by DOT, are incorporated by reference in this agreement. Implementation of these programs is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the sponsor of its failure to carry out its approved program, the Department may impose sanctions as provided for under Parts 26 and 23 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1936 (31 U.S.C. 3801).

38. Hangar Construction.

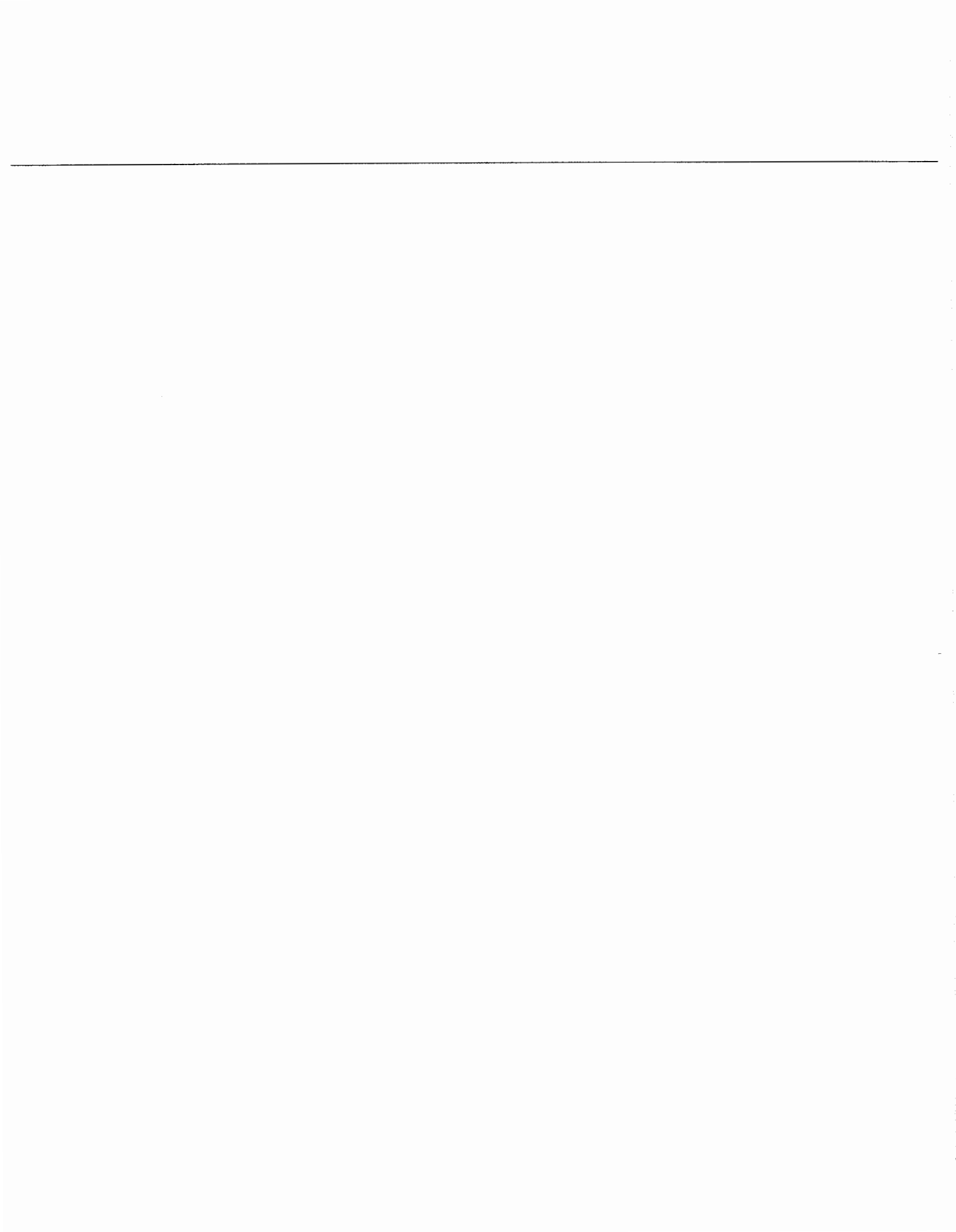
If the airport owner or operator and a person who owns an aircraft agree that a hangar is to be constructed at the airport for the aircraft at the aircraft owner's expense, the airport owner or operator will grant to the aircraft owner for the hangar a long term lease that is subject to such terms and conditions on the hangar as the airport owner or operator may impose.

39. **Competitive Access.**

- a. If the airport owner or operator of a medium or large hub airport (as defined in section 47102 of title 49, U.S.C.) has been unable to accommodate one or more requests by an air carrier for access to gates or other facilities at that airport in order to allow the air carrier to provide service to the airport or to expand service at the airport, the airport owner or operator shall transmit a report to the Secretary that-
 - 1) Describes the requests;
 - 2) Provides an explanation as to why the requests could not be accommodated; and
 - 3) Provides a time frame within which, if any, the airport will be able to accommodate the requests.
- b. Such report shall be due on either February 1 or August 1 of each year if the airport has been unable to accommodate the request(s) in the six month period prior to the applicable due date.

BALLANTINE AVIATION CONSULTING SERVICES, PLLC

PHASE I AND 2 PROJECT SCOPE OF SERVICES



PHASE I

ARTICLE A - PROJECT DEVELOPMENT AND DATA COLLECTION

- A.1. Project Authorization Meeting** - BACS will attend a project authorization meeting at the Whitefield Town Office to provide the SPONSOR and BACS with the opportunity to discuss the proposed FY2014 airport safety enhancement projects that are identified in the airport's current capital improvement program (CIP). The purpose of this meeting is to obtain the SPONSOR's authorization to proceed with the development and execution of the proposed project. BACS will prepare a presentation describing the airport safety enhancement issues that will be addressed and outlining the federal and state processes that will fund and govern the project. BACS will solicit the SPONSOR's priorities and objectives and will make suggestions and recommendations as to methods and strategies to accomplish them.
- A.2. Project Scoping Meeting** - BACS will attend a project scoping meeting at the Mount Washington Regional Airport to provide the representatives of the SPONSOR, the NHDOT, BACS and its four design team subconsultants with the opportunity to review and discuss the nature and extent of the project and to establish the project components, budget and schedule. BACS will coordinate the date and time of the meeting via telephone, letters, and emails to the representatives of the SPONSOR, the NHDOT, and the subconsultants. BACS will prepare a presentation of the project components for discussion during the meeting. BACS will prepare electronic versions of the paper presentation materials in PDF format and deliver them to remote teleconference attendees for their reference during the meeting. BACS will conduct the meeting using the FAA New England Region Airports Division *Scoping/Predesign Meeting Worksheet (Development Projects) Revised 12-2012*.
- A.3. Review and Evaluate Existing Data** - BACS will compile the existing data that was prepared for previous projects at the airport, that is germane to the project, and that might be useful in the development and execution of the project. The existing data includes the 2005 airport master plan document, the 2008 airport master plan supplement drawings, various engineering drawings, the current Exhibit "A" airport property plan, municipal tax maps, hilltop hazard beacon easements and drawings, environmental permits and documents, FAA Form 5010 *Airport Master Record*, airport/facility directory, instrument approach procedures, airspace obstruction analyses, USGS quadrangle maps, site photographs, aerial photogrammetry data, and aerial photographs. BACS will review the existing data for accuracy and completeness and to determine the feasibility of utilizing the data. BACS will create PDF copies by electronically scanning the paper engineering drawings that are not available electronically. BACS will deliver the PDF drawings to the SPONSOR on a computer disk (CD). BACS will utilize the pertinent data and information as appropriate to prepare worksheets to facilitate the development of the project.
- A.4. Dedicated FTP Server Project Folder** - BACS will create a dedicated project folder on its FTP server and upload the existing electronic project data files for use and reference by the design team subconsultants. BACS will create individual user accounts for each design team subconsultant and assign unique usernames and passwords.
- A.5. Environmental Site Walk** - BACS will conduct a one-day project development site walk with the environmental subconsultant (ECO) to observe the proximity of environmentally sensitive areas to known and anticipated on-airport infrastructure improvement needs. ECO's complete

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scope of services is in Appendix D.

BACS will note the existing conditions of pertinent field observations such as standing water, poor drainage, wet soil conditions, wildlife activity indicators, areas of known vegetation obstructions, underground utilities, airport lighting, obstruction lighting, NAVAID facilities, the localizer critical area, and vehicle/equipment access points and accessibility. BACS will walk the airport property and photograph its field observations for use in developing the project approach and preparing the project scope of work.

A.6. Aerial Photogrammetry Mapping - BACS will obtain aerial photogrammetry data of the study areas in accordance with the request for proposal (RFP) documents contained in Attachment A. BACS will determine the extent of the area to be mapped, prepare the aerial photogrammetry request for proposal including the aerial photogrammetry scope of work, deliver the request for proposal to the aerial photogrammetry subconsultant, review the subconsultant's (KAPPA) proposal, prepare the subconsultant's contract including federal flow down requirements, issue the notice to proceed, and confer with the subconsultant during the course of the aerial photogrammetry work. BACS will verify that the aerial photogrammetry has been compiled in accordance with the prescribed mapping requirements.

BACS will provide the SPONSOR with two (2) copies of a 1" = 1,000' approximate scale color aerial photograph of the Airport and the features within the limits of the ultimate FAR Part 77 airspace. The photographs will measure approximately 24" x 36".

A.7. Ground Control Survey - BACS will coordinate the aerial photogrammetry ground control survey requirements with a professional land surveyor (HORIZONS) who is licensed in the State of New Hampshire to provide ground survey services to support the aerial photogrammetry subconsultant (KAPPA) mapping work. HORIZONS will locate, identify and validate existing survey monumentation that may exist on the Airport and in the vicinity of the Airport sufficient to establish aerial targets for the aerial photogrammetry mapping and orthorectification. HORIZONS' complete scope of services is in Appendix B.

BACS will assist HORIZONS in coordinating the number and locations of aerial targets required to ortho-rectify the aerial photogrammetry mapping.

A.8. Project Development Meeting - BACS will attend one (1) project development meeting at the Mount Washington Regional Airport to present the preliminary project development concepts and to obtain input from the representatives of the SPONSOR regarding changes and alternatives.

Expenses - BACS will incur certain miscellaneous and incidental project-related expenses during this phase of the work which may include but will not be limited to: meals, lodging, mileage, tolls, overnight shipping, photocopies, drawing scanning and reproduction, equipment rental, field supplies, newspaper advertisements, and miscellaneous vendor invoices. These expenses will be included in BACS's contract with the SPONSOR.

Outside Services - BACS will incur certain project-related subconsultant costs during this phase of the work as described in the attached subconsultant scopes of services. The subconsultant costs will be

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included in BACS's contract with the SPONSOR.

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ARTICLE B – AIRSPACE OBSTRUCTION ANALYSES

B.1. Runway 10-28 Existing FAR Part 77 Surfaces Obstruction Analyses – BACS will assist COLBY in conducting the following airspace obstruction analyses. BACS will develop the surface dimensions and other geometrical and technical parameters for COLBY's use in constructing the 3D surface model based on FAR Part 77 surfaces. BACS will provide COLBY with the 3D model data and will review the accuracy and correctness of the 3D model prior to conducting the analyses. COLBY will run the analyses and provide BACS with the results for review, interpretation and further handling. COLBY's complete scope of services is in Appendix C.

BACS will create a three-dimensional computer model of the Runway 10-28 existing FAR Part 77 surfaces and will perform an obstruction analysis of the aerial photogrammetry data obtained under Task A.6. BACS will compare the locations and heights of objects to the Runway 10 20:1 nonprecision approach surface and its 7:1 transitional surfaces; to the Runway 28 20:1 visual approach surface and its 7:1 transitional surfaces; and to the Runway 10-28 primary surface and its 7:1 transitional surfaces. BACS will determine if the objects penetrate the Part 77 surfaces and will calculate the degree of penetrations. BACS will prepare a spreadsheet summarizing the results of the obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, degree of penetrations, and obstructed surfaces.

BACS will perform a supplemental obstruction analysis of the existing Part 77 surfaces beyond the limits of the aerial photogrammetry data based on a digital elevation model (DEM) obtained from the New Hampshire Statewide GIS Clearinghouse website (<http://granit.sr.unh.edu/>). BACS will analyze the DEM to determine if the Part 77 surfaces are susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet. BACS will prepare a table summary of the Part 77 DEM analysis identifying the areas of tree and ground obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

The results of the analysis will be depicted on drawings prepared under Task D.1.

B.2. Runway 10-28 Ultimate FAR Part 77 Surfaces Obstruction Analyses – BACS will assist COLBY in conducting the following airspace obstruction analyses. BACS will develop the surface dimensions and other geometrical and technical parameters for COLBY's use in constructing the 3D surface model based on FAR Part 77 surfaces. BACS will provide COLBY with the 3D model data and will review the accuracy and correctness of the 3D model prior to conducting the analyses. COLBY will run the analyses and provide BACS with the results for review, interpretation and further handling. COLBY's complete scope of services is in Appendix C.

BACS will create a three-dimensional computer model of the Runway 10-28 ultimate FAR Part 77 surfaces, including a 500-foot extension to Runway 28, and will perform an obstruction analysis of the aerial photogrammetry data obtained under Task A.6. BACS will compare the locations and heights of objects to the Runway 10 34:1 nonprecision approach surface and its 7:1 transitional surfaces; to the extended Runway 28 20:1 visual approach surface and its 7:1 transitional surfaces; and to the Runway 10-28 primary surface and its 7:1 transitional surfaces. BACS will determine if

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the objects penetrate the Part 77 surfaces and will calculate the degree of penetrations. BACS will prepare a spreadsheet summarizing the results of the obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, degree of penetrations, and obstructed surfaces.

BACS will perform a supplemental obstruction analysis of the ultimate Part 77 surfaces beyond the limits of the aerial photogrammetry data based on a digital elevation model (DEM) obtained from the New Hampshire Statewide GIS Clearinghouse website (<http://granit.sr.unh.edu/>). BACS will analyze the DEM to determine if the Part 77 surfaces are susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet. BACS will prepare a table summary of the Part 77 DEM analysis identifying the areas of tree and ground obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

The results of the analysis will be depicted on drawings prepared under Task D.1.

B.3. Runway 10 RNAV (GPS) Z LPV Category A/B Straight-In VAS Obstruction Analyses

– BACS will assist COLBY in conducting the following airspace obstruction analyses. BACS will develop the surface dimensions and other geometrical and technical parameters for COLBY's use in constructing the 3D surface model based on FAA technical orders, FAA advisory circulars, instrument approach procedures, and other similar aviation technical documents. BACS will provide COLBY with the 3D model data and will review the accuracy and correctness of the 3D model prior to conducting the analyses. COLBY will run the analyses and provide BACS with the results for review, interpretation and further handling. COLBY's complete scope of services is in Appendix C.

BACS will create a three-dimensional computer model of the Runway 10 LPV Category A/B nonprecision instrument approach procedure straight-in visual area surface (VAS) as defined in FAA Order 8260.3B, *United States Standard for Terminal Instrument Procedures (TERPS)* Volume 1, Chapter 3, Paragraph 3.3.2.c.(1)(b).

BACS will perform an obstruction analysis of the VAS based on the aerial photogrammetry data obtained under Task A.6 by comparing the locations and heights of objects to the VAS. BACS will determine if the objects penetrate the VAS and will calculate the degree of penetrations. BACS will prepare a spreadsheet summarizing the results of the obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, and degree of penetrations.

BACS will perform a supplemental obstruction analysis of the VAS beyond the limits of the aerial photogrammetry data based on a digital elevation model (DEM) obtained from the New Hampshire Statewide GIS Clearinghouse website (<http://granit.sr.unh.edu/>). BACS will analyze the DEM to determine if the VAS is susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet. BACS will prepare a table summary of the VAS obstruction analysis identifying the areas of tree and ground obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

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BACS will prepare a VAS risk assessment analysis of the aerial photogrammetry data to determine if an object is a low, medium or high risk obstruction. BACS will determine if an object penetrates the VAS and will calculate the degree of penetration. BACS will color-code penetrating objects as green, yellow or red according to the degree of penetration. BACS will prepare a color-coded spreadsheet summarizing the results of the VAS risk assessment analysis including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, and degree of penetrations.

BACS will prepare a VAS risk assessment of the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet to determine if an area of potential tree heights is a low, medium or high risk obstruction. BACS will prepare a color-coded table summary of the VAS risk assessment analysis identifying the areas of potential tree obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

The results of the analysis will be depicted on drawings prepared under Task D.1.

- B.4. Runway 10 RNAV (GPS) Z LPV Category C Straight-In VAS Obstruction Analyses –** BACS will assist COLBY in conducting the following airspace obstruction analyses. BACS will develop the surface dimensions and other geometrical and technical parameters for COLBY's use in constructing the 3D surface model based on FAA technical orders, FAA advisory circulars, instrument approach procedures, and other similar aviation technical documents. BACS will provide COLBY with the 3D model data and will review the accuracy and correctness of the 3D model prior to conducting the analyses. COLBY will run the analyses and provide BACS with the results for review, interpretation and further handling. COLBY's complete scope of services is in Appendix C.

BACS will create a three-dimensional computer model of the Runway 10 LPV Category C nonprecision instrument approach procedure straight-in visual area surface (VAS) as defined in FAA Order 8260.3B, *United States Standard for Terminal Instrument Procedures (TERPS)* Volume 1, Chapter 3, Paragraph 3.3.2.c.(1)(b).

BACS will perform an obstruction analysis of the VAS based on the aerial photogrammetry data obtained under Task A.6 by comparing the locations and heights of objects to the VAS. BACS will determine if the objects penetrate the VAS and will calculate the degree of penetrations. BACS will prepare a spreadsheet summarizing the results of the obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, and degree of penetrations.

BACS will perform a supplemental obstruction analysis of the VAS beyond the limits of the aerial photogrammetry data based on a digital elevation model (DEM) obtained from the New Hampshire Statewide GIS Clearinghouse website (<http://granit.sr.unh.edu/>). BACS will analyze the DEM to determine if the VAS is susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet. BACS will prepare a table summary of the VAS obstruction analysis identifying the areas of tree and ground

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obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

BACS will prepare a VAS risk assessment analysis of the aerial photogrammetry data to determine if an object is a low, medium or high risk obstruction. BACS will determine if an object penetrates the VAS and will calculate the degree of penetration. BACS will color-code penetrating objects as green, yellow or red according to the degree of penetration. BACS will prepare a color-coded spreadsheet summarizing the results of the VAS risk assessment analysis including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, and degree of penetrations.

BACS will prepare a VAS risk assessment of the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet to determine if an area of potential tree heights is a low, medium or high risk obstruction. BACS will prepare a color-coded table summary of the VAS risk assessment analysis identifying the areas of potential tree obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

The results of the analysis will be depicted on drawings prepared under Task D.1.

B.5. Runway 10 RNAV (GPS) Y LNAV Category A/B Straight-In VAS Obstruction

Analyses – BACS will assist COLBY in conducting the following airspace obstruction analyses. BACS will develop the surface dimensions and other geometrical and technical parameters for COLBY's use in constructing the 3D surface model based on FAA technical orders, FAA advisory circulars, instrument approach procedures, and other similar aviation technical documents. BACS will provide COLBY with the 3D model data and will review the accuracy and correctness of the 3D model prior to conducting the analyses. COLBY will run the analyses and provide BACS with the results for review, interpretation and further handling. COLBY's complete scope of services is in Appendix C.

BACS will create a three-dimensional computer model of the Runway 10 LNAV Category A/B nonprecision instrument approach procedure straight-in visual area surface (VAS) as defined in FAA Order 8260.3B, *United States Standard for Terminal Instrument Procedures (TERPS)* Volume 1, Chapter 3, Paragraph 3.3.2.c.(1)(b).

BACS will perform an obstruction analysis of the VAS based on the aerial photogrammetry data obtained under Task A.6 by comparing the locations and heights of objects to the VAS. BACS will determine if the objects penetrate the VAS and will calculate the degree of penetrations. BACS will prepare a spreadsheet summarizing the results of the obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, and degree of penetrations.

BACS will perform a supplemental obstruction analysis of the VAS beyond the limits of the aerial photogrammetry data based on a digital elevation model (DEM) obtained from the New Hampshire Statewide GIS Clearinghouse website (<http://granit.sr.unh.edu/>). BACS will analyze the DEM to determine if the VAS is susceptible to tree obstructions on high terrain by overlaying the

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DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet. BACS will prepare a table summary of the VAS obstruction analysis identifying the areas of tree and ground obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

BACS will prepare a VAS risk assessment analysis of the aerial photogrammetry data to determine if an object is a low, medium or high risk obstruction. BACS will determine if an object penetrates the VAS and will calculate the degree of penetration. BACS will color-code penetrating objects as green, yellow or red according to the degree of penetration. BACS will prepare a color-coded spreadsheet summarizing the results of the VAS risk assessment analysis including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, and degree of penetrations.

BACS will prepare a VAS risk assessment of the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet to determine if an area of potential tree heights is a low, medium or high risk obstruction. BACS will prepare a color-coded table summary of the VAS risk assessment analysis identifying the areas of potential tree obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

The results of the analysis will be depicted on drawings prepared under Task D.1.

B.6. Runway 10 RNAV (GPS) Y LNAV Category C Straight-In VAS Obstruction Analyses

– BACS will assist COLBY in conducting the following airspace obstruction analyses. BACS will develop the surface dimensions and other geometrical and technical parameters for COLBY's use in constructing the 3D surface model based on FAA technical orders, FAA advisory circulars, instrument approach procedures, and other similar aviation technical documents. BACS will provide COLBY with the 3D model data and will review the accuracy and correctness of the 3D model prior to conducting the analyses. COLBY will run the analyses and provide BACS with the results for review, interpretation and further handling. COLBY's complete scope of services is in Appendix C.

BACS will create a three-dimensional computer model of the Runway 10 LNAV Category C nonprecision instrument approach procedure straight-in visual area surface (VAS) as defined in FAA Order 8260.3B, *United States Standard for Terminal Instrument Procedures (TERPS)* Volume 1, Chapter 3, Paragraph 3.3.2.c.(1)(b).

BACS will perform an obstruction analysis of the VAS based on the aerial photogrammetry data obtained under Task A.6 by comparing the locations and heights of objects to the VAS. BACS will determine if the objects penetrate the VAS and will calculate the degree of penetrations. BACS will prepare a spreadsheet summarizing the results of the obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, and degree of penetrations.

BACS will perform a supplemental obstruction analysis of the VAS beyond the limits of the aerial photogrammetry data based on a digital elevation model (DEM) obtained from the New

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Hampshire Statewide GIS Clearinghouse website (<http://granit.sr.unh.edu/>). BACS will analyze the DEM to determine if the VAS is susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet. BACS will prepare a table summary of the VAS obstruction analysis identifying the areas of tree and ground obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

BACS will prepare a VAS risk assessment analysis of the aerial photogrammetry data to determine if an object is a low, medium or high risk obstruction. BACS will determine if an object penetrates the VAS and will calculate the degree of penetration. BACS will color-code penetrating objects as green, yellow or red according to the degree of penetration. BACS will prepare a color-coded spreadsheet summarizing the results of the VAS risk assessment analysis including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, and degree of penetrations.

BACS will prepare a VAS risk assessment of the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet to determine if an area of potential tree heights is a low, medium or high risk obstruction. BACS will prepare a color-coded table summary of the VAS risk assessment analysis identifying the areas of potential tree obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

The results of the analysis will be depicted on drawings prepared under Task D.1.

B.7. Runway 10 RNAV (GPS) Y Category A/B Standard VAS Obstruction Analyses – BACS will assist COLBY in conducting the following airspace obstruction analyses. BACS will develop the surface dimensions and other geometrical and technical parameters for COLBY's use in constructing the 3D surface model based on FAA technical orders, FAA advisory circulars, instrument approach procedures, and other similar aviation technical documents. BACS will provide COLBY with the 3D model data and will review the accuracy and correctness of the 3D model prior to conducting the analyses. COLBY will run the analyses and provide BACS with the results for review, interpretation and further handling. COLBY's complete scope of services is in Appendix C.

BACS will create a three-dimensional computer model of the Runway 10 circling Category A/B instrument approach procedure standard visual area surface (VAS) as defined in FAA Order 8260.3B, *United States Standard for Terminal Instrument Procedures (TERPS)* Volume 1, Chapter 3, Paragraph 3.3.2.c.(1)(a).

BACS will perform an obstruction analysis of the VAS based on the aerial photogrammetry data obtained under Task A.6 by comparing the locations and heights of objects to the VAS. BACS will determine if the objects penetrate the VAS and will calculate the degree of penetrations. BACS will prepare a spreadsheet summarizing the results of the obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, and degree of penetrations.

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BACS will perform a supplemental obstruction analysis of the VAS beyond the limits of the aerial photogrammetry data based on a digital elevation model (DEM) obtained from the New Hampshire Statewide GIS Clearinghouse website (<http://granit.sr.unh.edu/>). BACS will analyze the DEM to determine if the VAS is susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet. BACS will prepare a table summary of the VAS obstruction analysis identifying the areas of tree and ground obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

BACS will prepare a VAS risk assessment analysis of the aerial photogrammetry data to determine if an object is a low, medium or high risk obstruction. BACS will determine if an object penetrates the VAS and will calculate the degree of penetration. BACS will color-code penetrating objects as green, yellow or red according to the degree of penetration. BACS will prepare a color-coded spreadsheet summarizing the results of the VAS risk assessment analysis including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, and degree of penetrations.

BACS will prepare a VAS risk assessment of the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet to determine if an area of potential tree heights is a low, medium or high risk obstruction. BACS will prepare a color-coded table summary of the VAS risk assessment analysis identifying the areas of potential tree obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

The results of the analysis will be depicted on drawings prepared under Task D.1.

B.8. Runway 10 RNAV (GPS) Y Category C Standard VAS Obstruction Analyses – BACS will assist COLBY in conducting the following airspace obstruction analyses. BACS will develop the surface dimensions and other geometrical and technical parameters for COLBY's use in constructing the 3D surface model based on FAA technical orders, FAA advisory circulars, instrument approach procedures, and other similar aviation technical documents. BACS will provide COLBY with the 3D model data and will review the accuracy and correctness of the 3D model prior to conducting the analyses. COLBY will run the analyses and provide BACS with the results for review, interpretation and further handling. COLBY's complete scope of services is in Appendix C.

BACS will create a three-dimensional computer model of the Runway 10 circling Category C instrument approach procedure standard visual area surface (VAS) as defined in FAA Order 8260.3B, *United States Standard for Terminal Instrument Procedures (TERPS)* Volume 1, Chapter 3, Paragraph 3.3.2.c.(1)(a).

BACS will perform an obstruction analysis of the VAS based on the aerial photogrammetry data obtained under Task A.6 by comparing the locations and heights of objects to the VAS. BACS will determine if the objects penetrate the VAS and will calculate the degree of penetrations. BACS will prepare a spreadsheet summarizing the results of the obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object

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elevations, and degree of penetrations.

BACS will perform a supplemental obstruction analysis of the VAS beyond the limits of the aerial photogrammetry data based on a digital elevation model (DEM) obtained from the New Hampshire Statewide GIS Clearinghouse website (<http://granit.sr.unh.edu/>). BACS will analyze the DEM to determine if the VAS is susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet. BACS will prepare a table summary of the VAS obstruction analysis identifying the areas of tree and ground obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

BACS will prepare a VAS risk assessment analysis of the aerial photogrammetry data to determine if an object is a low, medium or high risk obstruction. BACS will determine if an object penetrates the VAS and will calculate the degree of penetration. BACS will color-code penetrating objects as green, yellow or red according to the degree of penetration. BACS will prepare a color-coded spreadsheet summarizing the results of the VAS risk assessment analysis including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, and degree of penetrations.

BACS will prepare a VAS risk assessment of the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet to determine if an area of potential tree heights is a low, medium or high risk obstruction. BACS will prepare a color-coded table summary of the VAS risk assessment analysis identifying the areas of potential tree obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

The results of the analysis will be depicted on drawings prepared under Task D.1.

B.9. Runway 10 LOC/NDB Category A/B Straight-In VAS Obstruction Analyses – BACS will assist COLBY in conducting the following airspace obstruction analyses. BACS will develop the surface dimensions and other geometrical and technical parameters for COLBY's use in constructing the 3D surface model based on FAA technical orders, FAA advisory circulars, instrument approach procedures, and other similar aviation technical documents. BACS will provide COLBY with the 3D model data and will review the accuracy and correctness of the 3D model prior to conducting the analyses. COLBY will run the analyses and provide BACS with the results for review, interpretation and further handling. COLBY's complete scope of services is in Appendix C.

BACS will create a three-dimensional computer model of the Runway 10 straight-in Category A/B nonprecision instrument approach procedure straight-in visual area surface (VAS) as defined in FAA Order 8260.3B, *United States Standard for Terminal Instrument Procedures (TERPS)* Volume 1, Chapter 3, Paragraph 3.3.2.c.(1)(b).

BACS will perform an obstruction analysis of the VAS based on the aerial photogrammetry data obtained under Task A.6 by comparing the locations and heights of objects to the VAS. BACS will determine if the objects penetrate the VAS and will calculate the degree of penetrations. BACS

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will prepare a spreadsheet summarizing the results of the obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, and degree of penetrations.

BACS will perform a supplemental obstruction analysis of the VAS beyond the limits of the aerial photogrammetry data based on a digital elevation model (DEM) obtained from the New Hampshire Statewide GIS Clearinghouse website (<http://granit.sr.unh.edu/>). BACS will analyze the DEM to determine if the VAS is susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet. BACS will prepare a table summary of the VAS obstruction analysis identifying the areas of tree and ground obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

BACS will prepare a VAS risk assessment analysis of the aerial photogrammetry data to determine if an object is a low, medium or high risk obstruction. BACS will determine if an object penetrates the VAS and will calculate the degree of penetration. BACS will color-code penetrating objects as green, yellow or red according to the degree of penetration. BACS will prepare a color-coded spreadsheet summarizing the results of the VAS risk assessment analysis including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, and degree of penetrations.

BACS will prepare a VAS risk assessment of the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet to determine if an area of potential tree heights is a low, medium or high risk obstruction. BACS will prepare a color-coded table summary of the VAS risk assessment analysis identifying the areas of potential tree obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

The results of the analysis will be depicted on drawings prepared under Task D.1.

B.10. Runway 10 LOC/NDB Category C Straight-In VAS Obstruction Analysis – BACS will assist COLBY in conducting the following airspace obstruction analyses. BACS will develop the surface dimensions and other geometrical and technical parameters for COLBY's use in constructing the 3D surface model based on FAA technical orders, FAA advisory circulars, instrument approach procedures, and other similar aviation technical documents. BACS will provide COLBY with the 3D model data and will review the accuracy and correctness of the 3D model prior to conducting the analyses. COLBY will run the analyses and provide BACS with the results for review, interpretation and further handling. COLBY's complete scope of services is in Appendix C.

BACS will create a three-dimensional computer model of the Runway 10 straight-in Category C nonprecision instrument approach procedure straight-in visual area surface (VAS) as defined in FAA Order 8260.3B, *United States Standard for Terminal Instrument Procedures (TERPS)* Volume 1, Chapter 3, Paragraph 3.3.2.c.(1)(b).

BACS will perform an obstruction analysis of the VAS based on the aerial photogrammetry data

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obtained under Task A.6 by comparing the locations and heights of objects to the VAS. BACS will determine if the objects penetrate the VAS and will calculate the degree of penetrations. BACS will prepare a spreadsheet summarizing the results of the obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, and degree of penetrations.

BACS will perform a supplemental obstruction analysis of the VAS beyond the limits of the aerial photogrammetry data based on a digital elevation model (DEM) obtained from the New Hampshire Statewide GIS Clearinghouse website (<http://granit.sr.unh.edu/>). BACS will analyze the DEM to determine if the VAS is susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet. BACS will prepare a table summary of the VAS obstruction analysis identifying the areas of tree and ground obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

BACS will prepare a VAS risk assessment analysis of the aerial photogrammetry data to determine if an object is a low, medium or high risk obstruction. BACS will determine if an object penetrates the VAS and will calculate the degree of penetration. BACS will color-code penetrating objects as green, yellow or red according to the degree of penetration. BACS will prepare a color-coded spreadsheet summarizing the results of the VAS risk assessment analysis including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, and degree of penetrations.

BACS will prepare a VAS risk assessment of the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet to determine if an area of potential tree heights is a low, medium or high risk obstruction. BACS will prepare a color-coded table summary of the VAS risk assessment analysis identifying the areas of potential tree obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

The results of the analysis will be depicted on drawings prepared under Task D.1.

B.1.1. Runway 10 LOC/NDB Category A/B Standard VAS Obstruction Analyses – BACS will assist COLBY in conducting the following airspace obstruction analyses. BACS will develop the surface dimensions and other geometrical and technical parameters for COLBY's use in constructing the 3D surface model based on FAA technical orders, FAA advisory circulars, instrument approach procedures, and other similar aviation technical documents. BACS will provide COLBY with the 3D model data and will review the accuracy and correctness of the 3D model prior to conducting the analyses. COLBY will run the analyses and provide BACS with the results for review, interpretation and further handling. COLBY's complete scope of services is in Appendix C.

BACS will create a three-dimensional computer model of the Runway 10 circling Category A/B instrument approach procedure standard visual area surface (VAS) as defined in FAA Order 8260.3B, *United States Standard for Terminal Instrument Procedures (TERPS)* Volume I, Chapter 3, Paragraph 3.3.2.c.(1)(a).

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BACS will perform an obstruction analysis of the VAS based on the aerial photogrammetry data obtained under Task A.6 by comparing the locations and heights of objects to the VAS. BACS will determine if the objects penetrate the VAS and will calculate the degree of penetrations. BACS will prepare a spreadsheet summarizing the results of the obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, and degree of penetrations.

BACS will perform a supplemental obstruction analysis of the VAS beyond the limits of the aerial photogrammetry data based on a digital elevation model (DEM) obtained from the New Hampshire Statewide GIS Clearinghouse website (<http://granit.sr.unh.edu/>). BACS will analyze the DEM to determine if the VAS is susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet. BACS will prepare a table summary of the VAS obstruction analysis identifying the areas of tree and ground obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

BACS will prepare a VAS risk assessment analysis of the aerial photogrammetry data to determine if an object is a low, medium or high risk obstruction. BACS will determine if an object penetrates the VAS and will calculate the degree of penetration. BACS will color-code penetrating objects as green, yellow or red according to the degree of penetration. BACS will prepare a color-coded spreadsheet summarizing the results of the VAS risk assessment analysis including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, and degree of penetrations.

BACS will prepare a VAS risk assessment of the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet to determine if an area of potential tree heights is a low, medium or high risk obstruction. BACS will prepare a color-coded table summary of the VAS risk assessment analysis identifying the areas of potential tree obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

The results of the analysis will be depicted on drawings prepared under Task D.I.

B.12. Runway 10 LOC/NDB Category C Standard VAS Obstruction Analyses – BACS will assist COLBY in conducting the following airspace obstruction analyses. BACS will develop the surface dimensions and other geometrical and technical parameters for COLBY's use in constructing the 3D surface model based on FAA technical orders, FAA advisory circulars, instrument approach procedures, and other similar aviation technical documents. BACS will provide COLBY with the 3D model data and will review the accuracy and correctness of the 3D model prior to conducting the analyses. COLBY will run the analyses and provide BACS with the results for review, interpretation and further handling. COLBY's complete scope of services is in Appendix C.

BACS will create a three-dimensional computer model of the Runway 10 circling Category C instrument approach procedure standard visual area surface (VAS) as defined in FAA Order

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8260.3B, *United States Standard for Terminal Instrument Procedures (TERPS)* Volume 1, Chapter 3, Paragraph 3.3.2.c.(1)(a).

BACS will perform an obstruction analysis of the VAS based on the aerial photogrammetry data obtained under Task A.6 by comparing the locations and heights of objects to the VAS. BACS will determine if the objects penetrate the VAS and will calculate the degree of penetrations. BACS will prepare a spreadsheet summarizing the results of the obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, and degree of penetrations.

BACS will perform a supplemental obstruction analysis of the VAS beyond the limits of the aerial photogrammetry data based on a digital elevation model (DEM) obtained from the New Hampshire Statewide GIS Clearinghouse website (<http://granit.sr.unh.edu/>). BACS will analyze the DEM to determine if the VAS is susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet. BACS will prepare a table summary of the VAS obstruction analysis identifying the areas of tree and ground obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

BACS will prepare a VAS risk assessment analysis of the aerial photogrammetry data to determine if an object is a low, medium or high risk obstruction. BACS will determine if an object penetrates the VAS and will calculate the degree of penetration. BACS will color-code penetrating objects as green, yellow or red according to the degree of penetration. BACS will prepare a color-coded spreadsheet summarizing the results of the VAS risk assessment analysis including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, and degree of penetrations.

BACS will prepare a VAS risk assessment of the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet to determine if an area of potential tree heights is a low, medium or high risk obstruction. BACS will prepare a color-coded table summary of the VAS risk assessment analysis identifying the areas of potential tree obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

The results of the analysis will be depicted on drawings prepared under Task D.1.

B.13. Runway 10 PAPI OCS Obstruction Analyses – BACS will assist COLBY in conducting the following airspace obstruction analyses. BACS will develop the surface dimensions and other geometrical and technical parameters for COLBY's use in constructing the 3D surface model based on FAA technical orders, FAA advisory circulars, and other similar aviation technical documents. BACS will provide COLBY with the 3D model data and will review the accuracy and correctness of the 3D model prior to conducting the analyses. COLBY will run the analyses and provide BACS with the results for review, interpretation and further handling. COLBY's complete scope of services is in Appendix C.

BACS will prepare an obstruction analysis of the Runway 10 precision approach path indicator

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(PAPI) obstacle clearance surface (OCS). BACS will create a three-dimensional computer model of the PAPI OCS as defined in FAA Order 6850.2B *Visual Guidance Lighting Systems*.

BACS will perform an obstruction analysis of the OCS based on the aerial photogrammetry data obtained under Task A.6 by comparing the locations and heights of objects to the OCS. BACS will determine if objects penetrate the OCS and will calculate the degree of penetrations. BACS will prepare a spreadsheet summarizing the results of the OCS obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, and degree of penetrations.

BACS will perform a supplemental obstruction analysis of the OCS beyond the limits of the aerial photogrammetry data based on a digital elevation model (DEM) obtained from the New Hampshire Statewide GIS Clearinghouse website (<http://granit.sr.unh.edu/>). BACS will analyze the DEM to determine if the OCS is susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet. BACS will prepare a table summary of the OCS DEM analysis identifying the areas of tree and ground obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

The results of the analysis will be depicted on drawings prepared under Task D.1.

B.14. Hazard Beacon No. 1 Obstruction Analysis – BACS will assist COLBY in conducting the following airspace obstruction analyses. BACS will develop the surface dimensions and other geometrical and technical parameters for COLBY's use in constructing the 3D surface model based on FAA advisory circulars and other similar aviation technical documents. BACS will provide COLBY with the 3D model data and will review the accuracy and correctness of the 3D model prior to conducting the analyses. COLBY will run the analyses and provide BACS with the results for review, interpretation and further handling. COLBY's complete scope of services is in Appendix C.

BACS will prepare an obstruction analysis of the Hazard Beacon No. 1 area of coverage. BACS will create a three-dimension computer model of the hazard beacon area of coverage (HBAC) using a horizontal plane with a 1,500-foot radius at the elevation of the beacon light fixture and centered on the hazard beacon location on Airport Road.

BACS will perform an obstruction analysis of the HBAC based on a digital elevation model (DEM) obtained from the New Hampshire Statewide GIS Clearinghouse website (<http://granit.sr.unh.edu/>). BACS will analyze the DEM to determine if the HBAC is susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet. BACS will prepare a table summary of the HBAC DEM analysis identifying the areas of tree and ground obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

The results of the analysis will be depicted on drawings prepared under Task D.1.

B.15. Hazard Beacon No. 2 Obstruction Analysis – BACS will assist COLBY in conducting the

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following airspace obstruction analyses. BACS will develop the surface dimensions and other geometrical and technical parameters for COLBY's use in constructing the 3D surface model based on FAA advisory circulars and other similar aviation technical documents. BACS will provide COLBY with the 3D model data and will review the accuracy and correctness of the 3D model prior to conducting the analyses. COLBY will run the analyses and provide BACS with the results for review, interpretation and further handling. COLBY's complete scope of services is in Appendix C.

BACS will prepare an obstruction analysis of the Hazard Beacon No. 2 area of coverage. BACS will create a three-dimension computer model of the hazard beacon area of coverage (HBAC) using a horizontal plane with a 1,500-foot radius at the elevation of the beacon light fixture and centered on the hazard beacon location adjacent to the municipal water tower.

BACS will perform an obstruction analysis of the HBAC based on a digital elevation model (DEM) obtained from the New Hampshire Statewide GIS Clearinghouse website (<http://granit.sr.unh.edu/>). BACS will analyze the DEM to determine if the HBAC is susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet. BACS will prepare a table summary of the HBAC DEM analysis identifying the areas of tree and ground obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

The results of the analysis will be depicted on drawings prepared under Task D.I.

B.16. Airport Rotating Beacon Obstruction Analysis – BACS will assist COLBY in conducting the following airspace obstruction analyses. BACS will develop the surface dimensions and other geometrical and technical parameters for COLBY's use in constructing the 3D surface model based on FAA advisory circulars and other similar aviation technical documents. BACS will provide COLBY with the 3D model data and will review the accuracy and correctness of the 3D model prior to conducting the analyses. COLBY will run the analyses and provide BACS with the results for review, interpretation and further handling. COLBY's complete scope of services is in Appendix C.

BACS will prepare an obstruction analysis of the airport rotating beacon (ARB) to determine its functionality as a hazard beacon. BACS will create a three-dimension computer model of the rotating beacon area of coverage (RBAC) using a horizontal surface with a 1,500-foot radius centered on the rotating beacon location at the elevation of the rotating beacon light fixture.

BACS will perform an obstruction analysis of the RBAC based on the aerial photogrammetry data obtained under Task A.6 by comparing the locations and heights of objects to the RBAC. BACS will determine if objects penetrate the RBAC and will calculate the degree of penetrations. BACS will prepare a spreadsheet summarizing the results of the OCS obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, and degree of penetrations.

BACS will perform a supplemental obstruction analysis of the RBAC beyond the limits of the aerial photogrammetry data based on a digital elevation model (DEM) obtained from the New

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Hampshire Statewide GIS Clearinghouse website (<http://granit.sr.unh.edu/>). BACS will analyze the DEM to determine if the RBAC is susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet. BACS will prepare a table summary of the RBAC DEM analysis identifying the areas of tree and ground obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

BACS will prepare an obstruction analysis of the ARB to determine if the light emanating from the rotating beacon is obstructed. BACS will create a three-dimension computer model of the ARB using a series of conical surfaces with upward sloping surfaces ranging from 1 degree to 10 degrees in 1 degree increments centered on the rotating beacon location at the elevation of the rotating beacon light fixture.

BACS will perform an obstruction analysis of the ARB conical surfaces based on the aerial photogrammetry data obtained under Task A.6 by comparing the locations and heights of objects to the ARB conical surfaces. BACS will determine if objects penetrate the ARB conical surfaces and will calculate the degree of penetrations. BACS will prepare a spreadsheet summarizing the results of the ARB conical surfaces obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, and degree of penetrations.

BACS will perform a supplemental obstruction analysis of the ARB conical surfaces beyond the limits of the aerial photogrammetry data based on a digital elevation model (DEM) obtained from the New Hampshire Statewide GIS Clearinghouse website (<http://granit.sr.unh.edu/>). BACS will analyze the DEM to determine if the ARB conical surfaces are susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet. BACS will prepare a table summary of the ARB conical surfaces DEM analysis identifying the areas of tree obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

The results of the analysis will be depicted on drawings prepared under Task D.1.

B.17. Potential Hazard Beacon Locations Obstruction Analyses – BACS will assist COLBY in conducting the following airspace obstruction analyses. BACS will develop the surface dimensions and other geometrical and technical parameters for COLBY's use in constructing the 3D surface model based on FAA advisory circulars and other similar aviation technical documents. BACS will provide COLBY with the 3D model data and will review the accuracy and correctness of the 3D model prior to conducting the analyses. COLBY will run the analyses and provide BACS with the results for review, interpretation and further handling. COLBY's complete scope of services is in Appendix C.

BACS will prepare an obstruction analysis of potential hazard beacon location sites based on the results of the existing and ultimate FAR Part 77 analyses that were prepared under Tasks B.1 and B.2. BACS will create a three-dimension computer model representing a hazard beacon area of coverage (HBAC) using a horizontal plane with a 1,500-foot radius. BACS will insert instances of the HBAC model into the existing and ultimate Part 77 obstruction analyses models at locations

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and elevations to determine the number of potential hazard beacons that could be required to provide maximum coverage of existing ground and tree obstructions.

BACS will perform the obstruction analysis of the potential hazard beacon location sites based on a digital elevation model (DEM) obtained from the New Hampshire Statewide GIS Clearinghouse website (<http://granit.sr.unh.edu/>). BACS will analyze the DEM to determine if the potential hazard beacon location sites are susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet. BACS will prepare a table summary of the potential hazard beacon location sites DEM analysis identifying the areas of tree and ground obstructions, the acreage of obstructions for each range of tree heights, the number of affected properties, and the apparent property owners.

The results of the analysis will be depicted on drawings prepared under Task D.1.

Expenses - BACS will incur certain miscellaneous and incidental project-related expenses during this phase of the work which may include but will not be limited to: meals, lodging, mileage, tolls, overnight shipping, photocopies, drawing scanning and reproduction, equipment rental, field supplies, newspaper advertisements, and miscellaneous vendor invoices. These expenses will be included in BACS's contract with the SPONSOR.

Outside Services - BACS will incur certain project-related subconsultant costs during this phase of the work as described in the attached subconsultant scopes of services. The subconsultant costs will be included in BACS's contract with the SPONSOR.

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ARTICLE C - ENVIRONMENTAL SERVICES

C.1. Prepare Environmental Scope and Fee – BACS will solicit airport environmental services from ECO and invite ECO to attend and participate in the project scoping meeting. BACS will assist ECO in the development of an environmental scope of services and fee proposal based on the discussions during the project scoping meeting and on field observations during the environmental site walk conducted under Task A.5. BACS will identify the environmental work efforts that will be required for the environmental aspects of the project. ECO's complete scope of services is in Appendix D.

C.2. Environmental Review - BACS will review the airspace obstruction analyses prepared under Task B.1-17 to determine the proximity of known environmental resources to areas of ground and tree obstructions. BACS will review the ECO's environmental findings and incorporate them into the project. BACS will make recommendations to ensure that the proposed improvements and recommendations are in accordance with the applicable environmental regulatory requirements and adequately protect the environmental resources that may be adjacent to the proposed work.

C.3. Floodplain Analysis - BACS will obtain and review the Federal Emergency Management Administration (FEMA) Flood Insurance Rate Maps (FIRMs) that encompass the airport property to determine if the proposed improvement alternatives are located within the current 100-year floodplain. BACS will prepare a sketch of the floodplain limits relative to the airport property and prepare a brief technical narrative of the potential impacts of floodplains on future airport improvements. BACS will include the floodplain sketch and impacts narrative in the technical report prepared under Task D.9.

C.4 Site Visits - BACS will make two (2) one-day site visits to observe and participate in the environmental field activities conducted by ECO. BACS will coordinate the site visits with the SPONSOR and ECO. BACS will meet with the SPONSOR and ECO to discuss the potential environmental impacts revealed by the airspace obstruction analyses to identify improvement alternatives and recommendations.

Expenses - BACS will incur certain miscellaneous and incidental project-related expenses during this phase of the work which may include but will not be limited to: meals, lodging, mileage, tolls, overnight shipping, photocopies, drawing scanning and reproduction, equipment rental, field supplies, newspaper advertisements, and miscellaneous vendor invoices. These expenses will be included in BACS's contract with the SPONSOR.

Outside Services - BACS will incur certain project-related subconsultant costs during this phase of the work as described in the attached subconsultant scopes of services. The subconsultant costs will be included in BACS's contract with the SPONSOR.

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ARTICLE D – AIRPORT SAFETY ENHANCEMENT RECOMMENDATIONS

D.1. Preliminary Airspace Obstruction Analysis Drawings – BACS will assist COLBY in the preparation of a set of drawings depicting the results of the airspace obstruction analyses prepared under Article B. BACS will review COLBY’s preliminary drawings. BACS will coordinate the development of preliminary airspace obstruction analysis drawings with ECO to incorporate environmental resources considerations. BACS will prepare review comments for COLBY’s use in revising the preliminary drawings. COLBY’s complete scope of services is in Appendix C.

BACS will prepare color preliminary airspace obstruction analysis drawings based on the airspace obstruction analyses that were conducted under Tasks B.1-17 to include the following estimated number of drawings:

B.1	Existing Part 77 Surfaces	11 Drawings	
B.2	Ultimate Part 77 Surfaces	11 Drawings	
B.3	Runway 10 RNAV (GPS) Z LPV	Category A/B	Straight-In VAS
B.4	Runway 10 RNAV (GPS) Z LPV	Category C	Straight-In VAS
B.5	Runway 10 RNAV (GPS) Y LNAV	Category A/B	Straight-In VAS
B.6	Runway 10 RNAV (GPS) Y LNAV	Category C	Straight-In VAS
B.7	Runway 10 RNAV (GPS) Y Circling	Category A/B	Standard VAS
B.8	Runway 10 RNAV (GPS) Y Circling	Category C	Standard VAS
B.9	Runway 10 LOC/NDB S-10	Category A/B	Straight-In VAS
B.10	Runway 10 LOC/NDB S-10	Category C	Straight-In VAS
B.11	Runway 10 LOC/NDB Circling	Category A/B	Standard VAS
B.12	Runway 10 LOC/NDB Circling	Category C	Standard VAS
	B.3-12 Subtotal.....	4 Drawings	
B.13	Runway 10 PAPI Obstacle Clearance Surface.....	2 Drawings	
B.14	Hazard Beacon No. 1 Area of Coverage.....	1 Drawings	
B.15	Hazard Beacon No. 2 Area of Coverage.....	1 Drawings	
B.16	Airport Rotating Beacon Area of Coverage.....	1 Drawings	
B.17	Potential Hazard Beacon Location Sites Areas of Coverage.....	1 Drawings	
	Total.....	32 Drawings	

BACS will prepare 24” x 36” preliminary drawings at a scale of 1” = 100’ depicting the results of the analyses on a color aerial photograph and including obstruction analysis surface outlines and contours; color-coded obstruction analysis object identification tags; color-coded legends and tables; on-airport wetland information; and property information from municipal tax maps and the Airport Exhibit “A”.

BACS will prepare a 24” x 36” cover sheet summary drawing for each airspace obstruction analysis. BACS will prepare the cover sheet drawing at a scale that is suitable to depict the extent

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of the obstruction analysis surfaces on a single sheet. Cover sheet drawings are included in the above drawing summary.

BACS will print three (3) sets of paper preliminary drawings. BACS will distribute the preliminary drawings to the SPONSOR and the NHDOT for review and comments. BACS will provide the SPONSOR with one (1) paper set of full-size (24" x 36") preliminary drawings for review and comments. BACS will provide the NHDOT with a computer disk (CD) containing the preliminary drawings in PDF format for review and comments. BACS will upload the preliminary PDF drawings to the BACS dedicated FTP project folder created under Task A.4 to make them available to the design team subconsultants and other interested parties.

D.2. Draft Final Airspace Obstruction Analysis Drawings – BACS will assist COLBY in the preparation of a set of draft final airspace obstruction analysis drawings from the preliminary drawings that were prepared under Task D.1 based on the review comments. BACS will review the draft final drawings and prepare review comments for COLBY's use in revising the drawings. COLBY's complete scope of services is in Appendix C.

BACS will prepare 24" x 36" drawings at a scale of 1" = 100' depicting the results of the analyses on a color aerial photograph and including obstruction analysis surface outlines and contours; color-coded obstruction analysis object identification tags; color-coded legends and tables; on-airport wetland information; and property information from municipal tax maps and the Airport Exhibit "A".

BACS will prepare a 24" x 36" cover sheet summary drawing for each airspace obstruction analysis. BACS will prepare the cover sheet drawing at a scale that is suitable to depict the extent of the obstruction analysis surfaces on a single sheet.

BACS will print three (3) sets of paper draft final drawings. BACS will distribute the draft final drawings to the SPONSOR and the NHDOT for review and comments. BACS will provide the SPONSOR with one (1) paper set of full-size (24" x 36") draft final drawings for review and comments. BACS will provide the NHDOT with draft final drawings in PDF format on a computer disk (CD) for review and comments.

BACS will further develop the draft final drawings into 11" x 17" color figures on paper for insertion into the technical report.

D.3. OE/AAA Hazard Beacon Locations Determinations - BACS will prepare FAA Form 7460-1 *Notice of Proposed Construction or Alteration* for the area of existing ground and tree penetrations to the existing FAR Part 77 surfaces in the vicinity of the two (2) existing hilltop hazard beacon locations. BACS will develop horizontal and vertical data from the digital elevation model (DEM) data to identify the location of each hazard beacon and the extent of the area of ground and tree obstructions. BACS will prepare a sketch for each hazard beacon site that depicts the location of the hazard beacon and the extent of the area of ground and tree obstruction.

BACS will prepare general information of the areas including descriptions of the area and the nature of the ground and tree obstructions for the purposes of determining if the ground and

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trees present a hazard to air navigation and if the existing hazard beacons provide adequate coverage.

BACS will solicit opinions from local pilots who have first-hand knowledge of the Airport airspace and from itinerant pilots who utilize the Airport concerning the ability of the existing hazard beacons to adequately identify the location and extent of tree and ground obstructions relative to the instrument approach procedures, published minimums, local traffic patterns, and enroute flight plans.

BACS will submit a 7460-1 form and sketch electronically to the *FAA Obstruction Evaluation/Airport Airspace Analysis (OE/AAA)* website for each of the areas of ground and tree obstructions. BACS will monitor the OE/AAA website on a regular basis by email alerts during the OE/AAA evaluation period. BACS will send a copy of the OE/AAA determinations to the SPONSOR and the NHDOT. BACS will include a record of the OE/AAA determinations in the technical report.

D.4. Airport Infrastructure Assessment Field Survey – HORIZONS will conduct an airport infrastructure assessment field survey for the purpose of identifying areas where airport operational and maintenance safety can be improved. HORIZONS' complete scope of services is in Appendix B and includes the following objectives.

HORIZONS will locate the existing physical features including pavements, parking areas, buildings, utility poles, overhead utility lines, underground utility lines, drainage ways, drainage structures, fences, wetlands, and trees. HORIZONS will utilize aerial photogrammetry obtained under Task A.6 to supplement the field survey, to assist in verifying the existing conditions, and to facilitate the development and design of the project. HORIZONS will confirm floor elevations for use in determining drainage improvements in areas where Airport personnel and visitors could slip and fall on ice. HORIZONS will locate the apparent property lines, easements and rights-of-way in the vicinity of any proposed improvements. HORIZONS will prepare engineering drawings based on the field survey and supplemental data.

BACS will assist HORIZONS during the survey by providing advice and guidance pertaining to questions that may arise during the survey. BACS will review the HORIZONS engineering drawings prepared under this task to be used as figures in the report prepared under Task D.5.

D.5. Airport Infrastructure Assessment Technical Report – HORIZONS will prepare a brief technical report summarizing the results of the survey and offering recommendations for improvements to Airport operational and maintenance safety. HORIZONS' complete scope of services is in Appendix B and includes the following objectives.

HORIZONS will analyze potential drainage improvements to reduce ground water in frequently wet areas that require mowing, brush hogging, and clearing. HORIZONS will analyze excavation in areas of ground obstructions to runway primary surface based on aerial photogrammetry 2-foot contours of airport property to calculate the estimated volume of excavation required. HORIZONS will evaluate the conditions of existing septic system.

BACS will review the airport infrastructure assessment summary report and incorporate it into

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the draft technical report prepared under Task D.9

D.6. Preliminary Estimates - BACS will prepare planning-level preliminary estimates of material quantities, construction costs and anticipated environmental permitting requirements based on the results of the airspace obstruction analyses (Tasks B.1-17) and the OE/AAA determinations (Task D.3) and as depicted on the preliminary drawings. BACS will use the preliminary estimates to compare the relative costs of safety enhancement improvement alternatives. BACS will include the preliminary estimates in the draft technical report.

The preliminary estimates will reflect BACS's opinion of probable costs and will be based on BACS's and the design team subconsultants' experience with similar improvements. BACS has no control over the actual cost of contractor labor and materials or over the competitive bidding and construction market conditions. BACS cannot guarantee the accuracy of the preliminary estimates when compared to future contractor competitive construction bids or to the actual construction costs.

D.7. Draft Final Estimates - BACS will prepare planning-level draft final estimates of material quantities, construction costs and anticipated environmental permitting requirements based on the results of the airspace obstruction analyses (Tasks B.1-17) and OE/AAA determinations (Task D.3) and as depicted on the draft final drawings. BACS will use the draft final estimates to compare the costs of safety enhancement improvement alternatives. BACS will include the draft final estimates in the draft final technical report.

The draft final estimates will reflect BACS's opinion of probable costs and will be based on BACS's and the design team subconsultants' experience with similar improvements. BACS has no control over the actual cost of contractor labor and materials or over the competitive bidding and construction market conditions. BACS cannot guarantee the accuracy of the draft final estimates when compared to contractors' construction bids.

D.8. Site Visits - BACS will make one (1) overnight site visit to field check the initial findings of airspace obstruction analyses and to observe the site conditions first-hand. BACS will coordinate the site visit with its design team subconsultants. BACS will meet with representatives of the design team subconsultants during the site visit to discuss the findings of the airspace obstruction analyses prepared under Task B.1-17 and to field-verify the site conditions of areas of interest identified in the obstruction analyses.

BACS will make one (1) overnight site visit during the infrastructure assessment field survey conducted under Task D.4 to observe the existing conditions and to identify potential issues that could affect the alternatives and recommendations.

D.9. Draft Technical Report - BACS will prepare a comprehensive draft technical report that presents the results and findings of the project tasks and design team work efforts. BACS will communicate and coordinate with the representatives of the SPONSOR concerning the content and development of the report to ensure that the report meets and fulfills the SPONSOR's objectives.

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BACS proposes that the technical report will include numerous elements related to airport safety improvements and enhancements including:

- Descriptive narratives of the airspace obstruction analyses
- Airspace obstruction analysis data point files and spreadsheets
- OE/AAA hazard determinations for ground and tree obstructions
- Airport master record Form 5010 review and recommended changes
- Pilot opinions of airspace hazards and safety improvements
- Instrument approach procedure review and recommended changes
- Airport/Facility Directory review and recommended changes
- Airport infrastructure assessment field survey and technical report results and findings
- Inventory of airport underground utility locations
- Inventory of terminal area overhead and underground utility locations
- Electrical upgrades to underground utilities in terminal area
- Lighting improvement in non-lighted areas of airport for security and safety
- Airfield drainage improvement recommendations
- Terminal area drainage improvement recommendations
- Evaluation of terminal building septic system, environmental impact, and recommendations
- Airport property improvements site plans and figures
- Access gates, perimeter fencing, and public-use restrictions and recommendations
- Terminal area improvements site plans and figures
- Engineering drawings and details of recommended improvements
- Planning-level cost estimates of alternatives and recommendations
- Results of wildlife hazard assessment site visit
- Airport environmental resources and potential impacts of alternatives and recommendations
- Checklists for recommended airport maintenance and operation practices
- Appendices of photographs and supporting project data
- Airspace obstruction analyses 11" x 17" color drawings
- Computer disk containing technical report, appendices and drawings in PDF format

BACS will prepare five (5) paper copies of the report. BACS will distribute one (1) paper copy the draft technical report to the SPONSOR and one (1) paper copy to the NHDOT for review and comment. BACS will create a PDF copy of the draft technical report and upload it to the dedicated FTP site for review and comment by the design team subconsultants relevant to their roles and contributions.

D.10.Draft Final Technical Report - BACS will revise the draft technical report prepared under Task D.9 based on the review comments. BACS will prepare five (5) paper copies of the report. BACS will distribute one (1) paper copy the draft final technical report to the SPONSOR and one (1) paper copy to the NHDOT for review and comment. BACS will create a PDF copy of the draft final technical report and upload it to the dedicated FTP site for review and comment by the design team subconsultants relevant to their roles and contributions.

BACS will use the draft final technical report as the content basis for the public presentation

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meeting to be conducted under Article F.

Expenses - BACS will incur certain miscellaneous and incidental project-related expenses during this phase of the work which may include but will not be limited to: meals, lodging, mileage, tolls, overnight shipping, photocopies, drawing scanning and reproduction, equipment rental, field supplies, newspaper advertisements, and miscellaneous vendor invoices. These expenses will be included in BACS's contract with the SPONSOR.

Outside Services - BACS will incur certain project-related subconsultant costs during this phase of the work as described in the attached subconsultant scopes of services. The subconsultant costs will be included in BACS's contract with the SPONSOR.

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ARTICLE E - PROJECT ADMINISTRATION

E.1. Project Scope of Services - BACS will prepare a detailed scope of services narrative and itemized fee schedules for submission to the SPONSOR and the NHDOT for review and approval. The project design team will be headed by BACS in the lead role as the Senior Project Manager and Senior Aviation Engineer with supporting services provided by KAPPA, HORIZONS, COLBY and ECO in subconsultant roles.

BACS will coordinate the preparation of the project scope of services and fee proposal with the design team subconsultants for aerial photogrammetry (KAPPA); surveying and civil engineering (HORIZONS); environmental (ECO); and airspace analysis, electrical engineering, and structural engineering services (COLBY).

The project scope of services will include a respective scope of services prepared by each design team subconsultant identifying their primary roles. The project scope of services will identify the primary roles and supporting roles of the design team members. BACS will participate in the execution of many of the subconsultant tasks in a supervisory role.

E.2. Independent Review Process - BACS will provide the SPONSOR with a copy of the project scope of services in PDF format and blank spreadsheets in MS Excel format which itemize BACS's and its subconsultants' proposed work efforts. The SPONSOR will forward the documents to the independent reviewer to prepare a manhour estimate in accordance with FAA Advisory Circular 150/5100-14D *Architectural, Engineering, and Planning Consultant Services for Airport Grant Projects (AC-14D)* to be used by the SPONSOR to determine the reasonableness of BACS's proposed scope of work.

BACS will provide a paper copy of AC-14D to the SPONSOR for its reference and use in conducting the independent review process.

Subsequent to the completion of the independent review, BACS will provide the SPONSOR with a manhour proposal for the SPONSOR's comparison to the independent manhour estimate. BACS will discuss the scope of services and manhour proposal with the SPONSOR as part of the independent review negotiation phase to clarify any work efforts that appear to be more than 10% higher or more than 10% lower than the independent manhour estimate. If requested by the SPONSOR at the conclusion of the negotiation phase, BACS will make changes to the scope of services and the manhour proposal.

E.3. Project Contract - BACS will prepare an engineering services agreement, including the final detailed scope of services narrative and itemized fee schedules, for submission to the SPONSOR and the NHDOT for review and approval. BACS will prepare a transmittal letter and distribute three (3) copies of the final engineering contract to the SPONSOR for original authorized signatures. BACS will prepare a transmittal letter and distribute one (1) original paper copy of the fully executed contract to the NHDOT.

E.4. Project Kickoff Meeting - BACS will attend a project kickoff meeting at the Mount Washington Regional Airport to provide the representatives of the SPONSOR, the NHDOT, BACS and the

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design team subconsultants with the opportunity to review and discuss the nature and extent of the project. BACS will coordinate the date and time of the meeting via telephone, letters, and emails to the representatives of the SPONSOR, the NHDOT, and the design team subconsultants. BACS will prepare a presentation of the project components for discussion during the meeting.

- E.5. Project Status Meetings** - BACS will attend six (6) monthly project status meetings at the Airport to inform the SPONSOR of the project's progress, to present the interim findings, to discuss the anticipated impacts, and to develop recommendations.
- E.6. FAA Grant Application (Phase I)** – The Phase I portion of the project includes Articles A, B, C, D and E.

BACS will prepare four (4) copies of the FAA grant application including Standard Form 424, Standard Form 5100-101, project purpose and benefits narrative, project cost estimate, project schedule, location sketch, statement of environmental action, statement of airport user coordination, statement of intergovernmental coordination, statement of SPONSOR DBE program status, sponsor certifications, and grant assurances.

BACS will advise and assist the SPONSOR concerning the process for obtaining and documenting the public vote for SPONSOR signatory authority to sign the ensuing grant offer. BACS will assist the SPONSOR in issuing a public advertisement informing the public of the SPONSOR's intent to accept the grant offer immediately upon receipt. The cost of the advertisement will be paid by the SPONSOR.

BACS will submit the grant application to the SPONSOR with a sample transmittal letter for signature and forwarding to the NHDOT.

BACS will review the grant offer for correctness and for special conditions that are unique to this project. BACS will assist the SPONSOR in executing the grant offer, soliciting a review and signature from the SPONSOR's attorney, returning the fully executed grant offer to the NHDOT, and complying with the terms and conditions of the grant offer throughout the project duration.

- E.7. US Fish and Wildlife Coordination** - BACS will prepare and deliver one (1) submission package with a cover letter directly to the U. S. Fish and Wildlife Service to facilitate federal agency review of the proposed project. BACS will obtain a response letter at the end of the review period identifying any specific requirements to be incorporated into the proposed project.
- E.8. Project Management** – The project design team will be headed by BACS in the lead role as the Project Manager and Senior Aviation Engineer with services provided by KAPPA, HORIZONS, COLBY and ECO in subconsultant support roles. The subconsultants' complete scopes of services are in Appendices A, B, C and D.

BACS will provide project management services by communicating and coordinating with the SPONSOR and the design team subconsultants to ensure that they are informed of the project's progress and to establish the efficient exchange of documents and information. BACS will provide general consultation and advice to the SPONSOR during the project. BACS will provide general

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coordination between the SPONSOR, the NHDOT, and the design team subconsultants during the project. BACS will provide general supervision and support to the subconsultants concerning unusual or unique developments or complications during the project. BACS will be available to communicate and coordinate with the SPONSOR, the NHDOT and subconsultants throughout the project in the form of teleconferences, letters, memos, and email.

BACS will prepare contract documents for each subconsultant based on the scopes of services in Appendices A, B, C and D. BACS will coordinate with and provide information to its four (4) subconsultants to facilitate the preparation and execution of the contract documents. BACS will review the subconsultants' contracts for accuracy and completeness before executing the contract and authorizing the work. BACS will distribute the contract documents prior to the start of work.

BACS will review the subconsultants' project documents such as designs, drawings, figures, narratives, calculations, estimates, assumptions and other technical data that are furnished by the subconsultants as required by the contract documents. BACS will review the subconsultant's progress and performance.

BACS will issue notices to proceed to the subconsultants subsequent to the execution of the subconsultants' contract. The notice to proceed will identify the project start date, project duration, and completion date. When warranted, BACS will issue notices to the subconsultants to stop work and will identify the reason for the notice to stop work, the stop work date, and the remaining time and budget to complete the project.

BACS will coordinate the issuance of NOTAMs with the SPONSOR before any on-airport field work commences. BACS will inform its subconsultants of the safety requirements of working on airports and their respective responsibilities and provide them with relevant airport safety documents such as AC 150/5370-2F *Operation Safety on Airports During Construction*.

E.9. Subconsultant Administration (KAPPA) - BACS will perform subconsultant administration in the form of communication with KAPPA and the dissemination of project data and information to KAPPA in the form of emails and telephone conversations to apprise and update the project design team of developments throughout the project. BACS will prepare a project work plan for distribution to KAPPA identifying their specific project goals and objectives including the project scope of work; team assignments and responsibilities; project budget; project schedule; project contacts; and federal contract requirements, obligations and limitations. BACS will review, approve and process two (2) KAPPA invoices to BACS during the project.

E.10. Subconsultant Administration (HORIZONS) - BACS will perform subconsultant administration in the form of communication with HORIZONS and the dissemination of project data and information to HORIZONS in the form of emails and telephone conversations to apprise and update the project design team of developments throughout the project. BACS will prepare a project work plan for distribution to HORIZONS identifying their specific project goals and objectives including the project scope of work; team assignments and responsibilities; project budget; project schedule; project contacts; and federal contract requirements, obligations and limitations. BACS will review, approve and process eight (8) HORIZONS invoices to BACS during

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the project.

- E.11. Subconsultant Administration (COLBY)** - BACS will perform subconsultant administration in the form of communication with COLBY and the dissemination of project data and information to COLBY in the form of emails and telephone conversations to apprise and update the project design team of developments throughout the project. BACS will prepare a project work plan for distribution to COLBY identifying their specific project goals and objectives including the project scope of work; team assignments and responsibilities; project budget; project schedule; project contacts; and federal contract requirements, obligations and limitations. BACS will review, approve and process six (6) COLBY invoices to BACS during the project.
- E.12. Subconsultant Administration (ECO)** - BACS will perform subconsultant administration in the form of communication with ECO and the dissemination of project data and information to ECO in the form of emails and telephone conversations to apprise and update the project design team of developments throughout the project. BACS will prepare a project work plan for distribution to ECO identifying their specific project goals and objectives including the project scope of work; team assignments and responsibilities; project budget; project schedule; project contacts; and federal contract requirements, obligations and limitations. BACS will review, approve and process two (2) ECO invoices to BACS during the project.
- E.13. Outside Administration** - BACS will provide general project administration and coordination including disseminating interim project data and information to the SPONSOR and the NHDOT in the form of telephone conversations, letters, email, copies, etc. to apprise the SPONSOR and the NHDOT of new developments throughout the project.
- E.14. Accounting Administration** - BACS will prepare and submit monthly invoices to the SPONSOR for services provided to the SPONSOR and for costs incurred by BACS and its subconsultants. It is anticipated that BACS will prepare and submit a total of eight (8) invoices during the course of the project.
- E.15. Miscellaneous Administration** - BACS will provide miscellaneous project administration and coordination duties which are not specifically addressed or anticipated in other project-related tasks including telephone conversations with the SPONSOR, the NHDOT, and other interested parties; disseminating interim project information to the SPONSOR, the NHDOT, and other interested parties; and organizing, maintaining, and archiving the project records for six (6) years.
- E.16. Reimbursement Requests (Phase I)** - BACS will prepare the reimbursement requests and applicable NHDOT payment request forms including transmittal letters to the SPONSOR and the NHDOT. BACS will compile the sponsor administration costs, engineering costs, and subconsultant costs. It is anticipated that a total of eight (8) reimbursement requests, including the final reimbursement request, will be processed during the course of the project.
- E.17. Project Close Out Report (Phase I)** - BACS will prepare the final project documentation in the form of a project close out report which consolidates the project related information that will be required by the NHDOT to formally close out the project. BACS will include in the close out report all general, fiscal, miscellaneous, engineering and construction information and

PHASE I

submissions/certifications listed on the FAA project closure summary checklist. BACS will distribute one (1) copy of the project close out report to the SPONSOR. BACS will distribute two (2) copies of the project close out report to the NHDOT.

Expenses - BACS will incur certain miscellaneous and incidental project-related expenses during this phase of the work which may include but will not be limited to: meals, lodging, mileage, tolls, overnight shipping, photocopies, drawing scanning and reproduction, equipment rental, field supplies, newspaper advertisements, and miscellaneous vendor invoices. These expenses will be included in BACS's contract with the SPONSOR.

Outside Services - BACS will incur certain project-related subconsultant costs during this phase of the work as described in the attached subconsultant scopes of services. The subconsultant costs will be included in BACS's contract with the SPONSOR.

PHASE 2

ARTICLE F – PUBLIC PRESENTATION AND FINAL PROJECT DOCUMENTS

F.1. **FAA Grant Application (Phase 2)** – The Phase 2 portion of the project includes Article F.

BACS will prepare four (4) copies of the FAA grant application including Standard Form 424, Standard Form 5100-101, project purpose and benefits narrative, project cost estimate, project schedule, location sketch, statement of environmental action, statement of airport user coordination, statement of intergovernmental coordination, statement of SPONSOR DBE program status, sponsor certifications, and grant assurances.

BACS will submit the grant application to the SPONSOR with a sample transmittal letter for signature and forwarding to the NHDOT.

BACS will review the grant offer for correctness and for special conditions that are unique to this project. BACS will assist the SPONSOR in executing the grant offer, soliciting a review and signature from the SPONSOR's attorney, returning the fully executed grant offer to the NHDOT, and complying with the terms and conditions of the grant offer throughout the project duration.

- F.2. Public Advertisement** - BACS will prepare an advertisement for the public presentation meeting in accordance with the SPONSOR's public notice procedures. BACS will deliver the advertisement to three (3) newspapers that are local to the SPONSOR. BACS will notify the NHDOT of the public meeting advertisement and the time and date of the public presentation meeting. The cost of the advertisement will be paid by the SPONSOR.
- F.3. Public Presentation Meeting** - BACS will coordinate the time, date and location of the public presentation meeting with the SPONSOR. BACS will notify the SPONSOR, the NHDOT and the design team subconsultants of the public presentation meeting and will invite their representatives to participate in the presentation. BACS will prepare a set of mounted draft final drawings and figures to allow the public to observe the work that was conducted and to ask questions about the proposed project areas. BACS will conduct the meeting, present the project to the public, and answer questions.
- F.4. Respond to Questions** - BACS will prepare written responses to public presentation questions that require additional information that is not available at the time of the meeting. BACS will distribute the written responses to the SPONSOR by email for review and further handling. BACS will incorporate questions and responses of suitable merit into the project documents to modify, clarify, or correct the project drawings and technical report.
- F.5. Final Airspace Obstruction Analysis Drawings** – BACS will assist COLBY in the preparation of a set of final airspace obstruction analysis drawings from the draft final drawings that were prepared under Task D.2 based on the public presentation and final review comments. BACS will review the draft final drawings and prepare review comments for COLBY's use in revising the final drawings. COLBY's complete scope of services is in Appendix C.

BACS will prepare final airspace obstruction analysis drawings from the draft final drawings that were prepared under Task D.2.

PHASE 2



BACS will prepare 24" x 36" drawings at a scale of 1" = 100' depicting the results of the analyses on a color aerial photograph and including obstruction analysis surface outlines and contours; color-coded obstruction analysis object identification tags; color-coded legends and tables; on-airport wetland information; and property information from municipal tax maps and the Airport Exhibit "A".

BACS will prepare a 24" x 36" cover sheet summary drawing for each airspace obstruction analyses. BACS will prepare the cover sheet drawing at a scale that is suitable to depict the extent of the obstruction analysis surfaces on a single sheet.

BACS will print five (5) sets of paper final drawings. BACS will provide the SPONSOR with two (2) paper set of full-size (24" x 36") final drawings. BACS will provide the NHDOT with final drawings in PDF format on a computer disk (CD). BACS will use one (1) paper set for the public presentation meeting boards under Task F.3.

BACS will further develop the final drawings into 11" x 17" color figures on paper for insertion into the technical report.

- F.6. Final Estimates** - BACS will prepare planning-level final estimates of material quantities, construction costs and anticipated environmental permitting requirements based on the results of the airspace obstruction analyses (Tasks B.1-17) and OE/AAA determinations (Task D.3) and as depicted on the final drawings. BACS will use the final estimates to compare the costs of safety enhancement improvement recommendations. BACS will include the final estimates in the final technical report.

The final estimates will reflect BACS's opinion of probable costs and will be based on BACS's and the design team subconsultants' experience with similar improvements. BACS has no control over the actual cost of contractor labor and materials or over the competitive bidding and construction market conditions. BACS cannot guarantee the accuracy of the final estimates when compared to contractors' construction bids.

- F.7. Final Technical Report** - BACS will revise the draft final technical report prepared under Task D.10 based on the public presentation review comments. BACS will prepare five (5) paper copies of the report. BACS will distribute one (1) paper copy the final technical report to the SPONSOR and one (1) paper copy to the NHDOT. BACS will create a PDF copy of the final technical report and upload it to the dedicated FTP site for the design team subconsultants.

- F.8. Update Facility Storm Water Pollution Prevention Plan** – BACS will assist ECO in the preparation of the airport facility storm water pollution prevention plan (SWPPP). ECO's complete scope of services is in Appendix C.

- F.9. Update Disadvantaged Business Enterprise Program** - BACS will obtain the latest version of the disadvantaged business enterprise (DBE) program from the SPONSOR. BACS will review the DBE program to determine if it is on file with the FAA Civil Rights Office, if it is current, and when it needs to be updated. BACS will review the methodology that was used to establish the

PHASE 2

availability of DBE businesses to provide services and products for the SPONSOR's airport projects. BACS will update the DBE program, distribute it for comments, and publically advertise the revised program to solicit review comments from the regional community. BACS will assist the SPONSOR in the preparation of one (1) electronic annual DBE report of DBE participation.

F.10. Reimbursement Requests (Phase 2) - BACS will prepare the reimbursement requests and applicable NHDOT payment request forms including transmittal letters to the SPONSOR and the NHDOT. BACS will compile the sponsor administration costs, engineering costs, and subconsultant costs. It is anticipated that a total of two (2) reimbursement requests, including the final reimbursement request, will be processed during the course of the project.

F.11. Project Close Out Report (Phase 2) - BACS will prepare the final project documentation in the form of a project close out report which consolidates the project related information that will be required by the NHDOT to formally close out the project. BACS will include in the close out report all general, fiscal, miscellaneous, engineering and construction information and submissions/certifications listed on the FAA project closure summary checklist. BACS will distribute one (1) copy of the project close out report to the SPONSOR. BACS will distribute two (2) copies of the project close out report to the NHDOT.

Expenses - BACS will incur certain miscellaneous and incidental project-related expenses during this phase of the work which may include but will not be limited to: meals, lodging, mileage, tolls, overnight shipping, photocopies, drawing scanning and reproduction, equipment rental, field supplies, newspaper advertisements, and miscellaneous vendor invoices. These expenses will be included in BACS's contract with the SPONSOR.

Outside Services - BACS will incur certain project-related subconsultant costs during this phase of the work as described in the attached subconsultant scopes of services. The subconsultant costs will be included in BACS's contract with the SPONSOR.

APPENDIX A

KAPPA MAPPING, INC.

SCOPE OF SERVICES AND FEE PROPOSAL



6 State Street, Suite 301 / Bangor, ME 04401
207-942-5200 / 866-836-8834 toll free

AGREEMENT FOR PROFESSIONAL SERVICES

PROJECT: Mount Washington Regional Airport
Project No. SBG 17-06-2014

Date: June 9, 2014

Agreement Between:

Client: Ballatine Aviation Consulting
Services, PLLC
66 Montrose Avenue
Portland, ME 04103
(207) 400-6037 Phone

Consultant: KAPPA Mapping, Inc.
6 State Street, Suite 301
Bangor, ME 04401
(207) 942-5200 Phone
(207) 942-5201 Fax

On the date KAPPA Mapping, Inc. receives this signed contract, KAPPA Mapping, Inc. hereby agrees to perform the services described below in response to the cover letter and RFP from CLIENT dated May 3, 2014, a copy of which is attached and made a part hereof, and CLIENT agrees to compensate KAPPA Mapping, Inc., as provided below.

Kappa Mapping, Inc. will provide the following:

1. New color leaf-on photography with processed ABGPS/IMU data. 11cm GSD (similar to 600"/" film photos).
2. Obstruction mapping for the primary, approach, and transition surfaces using a 50' grid (yellow area in the RFP).
3. Additional obstruction feature collection as indicated in the RFP in the yellow area. Poles, roads, buildings, etc.
4. An ascii file of obstruction data will be provided, formatted as shown in the RFP.
5. 100"/" 2'CI mapping of the green area as shown in the RFP which includes various spot grades and can be provided in AutoCad or similar format. Note: Obscured areas will be approximate.
6. Coordinate Systems: NH SPCS NAD83(2011) USFT with NAVD88(Geoid12A) orthometric heights (elevations). The photo control needs to be in these systems as will be the ABGPS/IMU data.
7. 0.5' resolution color orthophotos of the yellow area will be provided and the format can be tif, sid, or similar.



Agreement for Professional Services
June 9, 2014
Page Two

8. Four photo quality prints of the overall project area will be provided - Not mounted and will be roughly 24" x 36" and 1000'/" nominal scale.

The total fee for the above is \$32,800 and does not include photo control.

Photo control will be provided by Horizons Engineering.

KAPPA Mapping, Inc.'s Standard Terms & Conditions, dated June 12, 2012 are attached and made a part hereof and will apply to this work.

Dated this 9th day of June, 2014.

KAPPA MAPPING, INC.

**BALLENTINE AVIATION CONSULTING
SERVICES, PLLC**

Claire Kiedrowski

Claire Kiedrowski, President

Richard D. Yarnold, PE, Its _____

May 3, 2014

Mr. Bruce Berry
Kappa Mapping, Inc.
6 State Street
Suite 301
Bangor, ME 04401

Subject: Request for Aerial Photogrammetry Mapping Services
Mount Washington Regional Airport
Project No. SBG 17-06-2014

Dear Bruce:

Enclosed for your use in preparing your fee proposal are the aerial photogrammetry mapping requirements and supporting graphics for the Mount Washington Regional Airport.

Within the limits of the FAR Part 77 approach and transitional surfaces (bounded by yellow), we need to obtain the horizontal location and elevation of ground spot-grades, treetop elevations, buildings, utility poles, and other similar manmade objects using a 50-foot grid pattern. Ground contours will only be required on airport property (bounded by green).

Planimetrics (i.e. drawn outlines of manmade objects) will not be required because we will overlay the point data onto orthorectified georeferenced color aerial photographs provided by Kappa Mapping. We also desire to obtain an overhead image of the Airport extending from the Town of Whitefield to the easterly edge of the conical surface (indicated by magenta).

Would you kindly review the enclosed materials and provide me with your professional recommendations and fee proposal at the earliest opportunity.

Best regards,
Ballantine Aviation Consulting Services, PLLC



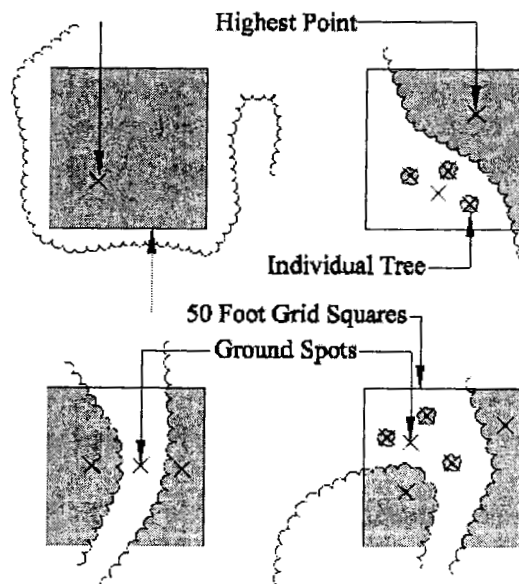
Richard D. Yarnold, PE
President

Mount Washington Regional Airport FAR Part 77 Approach and Transitional Surfaces Aerial Photogrammetry Mapping Requirements

I. Treetop Elevations (Bounded by YELLOW)

- A. Treetop elevation and location of the highest tree within each 50-foot grid square that is either wholly or partially within the FAR Part 77 surfaces including grid squares that are almost entirely outside the yellow boundary.
- B. Within each grid square where two or more areas of separated tree canopies fall within the grid square, a treetop elevation and location shot shall be collected for each separate canopy. Such elevations shall be the highest point on each canopy within the grid square (see Item I.D).
- C. Within each grid square that contains individual trees, the elevation and location of each individual tree shall be collected in addition to any full canopy shots that may be collected within that grid square. A tree is considered to be an individual tree when it clearly falls outside the limits of a canopy and would require being mapped as a separate symbol (see Item I.D).

D. Treetop and Ground Data Collection Examples



2. Manmade Objects (Bounded by YELLOW)

A. The elevation and location of all typical and usual manmade objects such as:

Airport taxiway and runway signs	Airport weather equipment
Runway edge lights	Taxiway edge lights
Airport PAPI fixtures	Airport REIL fixtures
Airport segmented circle	Airport wind cones
Drainage structures	Hydrants
Buildings and structures	Fences
Utility poles	Towers and masts
Railroad tracks	Flagpoles
Unknown or unidentifiable objects	Roadway signs
Other	

3. Buildings and Structures (Bounded by YELLOW)

- A. Elevation and location of each corner of each building outline. This could require collecting more than four points for buildings that are not rectangular in shape or that have multiple levels with different shapes.
- B. Elevation and location for the highest point on the building roof structure (e.g. the center of the roof ridge line).
- C. Several hangars at the Airport are quonset-style structures with rounded roofs (i.e. no defined ridge line). For quonset hangars, the elevation and location of the highest point on the roof shall be collected at the apparent center of the building.
- D. Several hangars, including the quonset hangars, have externally supported sliding doors. The elevation and location of the sliding door supports shall be collected even if the sliding door support elevation is lower than the highest point of the hangar roof.
- E. Elevation and location for an object on a building that is higher than the highest point on the building roof structure (e.g. chimney, cupola, walkway railing, light fixture, antenna, etc.).

4. Topography On Airport Property (bounded by GREEN)

- A. Ground contours at 2-foot intervals at even-foot elevations.

- B. Pavement spot grades at 50-foot intervals along the Runway 10-28 centerline.
 - C. Pavement spot grades at the corners of Runway 10-28, taxiways, terminal apron, and the aircraft run-up apron at the end of Runway 28.
 - D. Pavement spot grades along taxiway centerlines at 50-foot intervals, at centerline-centerline intersections, at apparent points of tangency/curvature on centerlines, and at centerline intersections with runway-taxiway holding markings. On taxilanes without painted centerlines, the spot grade may be obtained on the apparent centerline of the pavement.
5. Topography Off Airport Property (Bounded by YELLOW)
- A. Ground elevation spot grades at the intersection lines of the 50-foot grid, if visible; otherwise, as close as practical to the grid line intersection. The purpose of the ground spot grades is to aid in determining the height of nearby trees. Consequently, a roadway pavement elevation spot grade would not be desirable for this purpose unless it is not possible to obtain a ground elevation spot grade because the ground is wholly obscured by trees.
 - B. Ground elevation spot grades along the apparent centerline of paved or unpaved public-use roads at 50-foot intervals. The purpose of these spot grades is to establish the profile and alignment of the roads relative to the FAR Part 77 surfaces. A road is considered to be public-use if it is signed or labeled as a public way (e.g. Google Earth, Mapquest, etc.) or if it is regularly used by the general public (e.g. a long paved driveway to a single residence would not be considered public-use, but an unpaved road to a gravel pit, commercial business, or industrial site would be considered public-use). The access road leading from the airport terminal area to the localizer antenna array and support shack at the easterly end of Runway 28 is considered a public-use road.
 - C. Ground elevation spot grades along the apparent centerline of railroad tracks at 200-foot intervals and at railroad-road grade crossings. The ground elevation spot grades shall be collected at the apparent ground elevation between the rails which could be on a railroad cross tie (i.e. not on either rail). The purpose of these spot grades is to determine the profile and alignment of railroads relative to the FAR Part 77 surfaces.
6. Aerial Mapping Features Not Required
- A. Planimetrics for manmade features will not be required. Graphic representation of objects shall be accomplished by overlaying the object data points onto orthorectified photographs.

- B. Contour lines outside the area bounded by GREEN.
- C. Elevation of vegetation that is not significantly higher than the ground elevation (e.g. 2'-3' brush and shrubs).
- D. Location and elevation of temporary movable objects such as parked aircraft, parked vehicles, parked equipment, dumpsters, open hangar bi-fold doors, etc.
- E. Roadway guardrails.

7. Supplemental Aerial Photogrammetry Mapping Requirements

- A. All data shall be collected using a method and a scale factor suitable for the accurate creation of 1"=100' scale drawings. All data shall be on the New Hampshire State Plane Coordinate System. The vertical datum shall be NAVD 88.
- B. A 50-foot grid centered on the runway centerline shall be used to establish the frequency for data collection.
- C. Aerial photogrammetry object data shall be compiled and submitted as ASCII text files containing the X, Y, and Z values and clear descriptions of collected spot elevations using the following line item format. A single header shall be used to identify each of the separate fields. The file shall be space or comma delimited with quoted strings. Object data shall be supplied electronically on CD or DVD.

"X"	"Y"	"Z"	"Description"
4241789.652	47796855.256	598.24	"Treetop Spot"
4256687.255	48758995.351	578.25	"Building Spot"
4254478.336	48756992.255	587.11	"Single Tree"

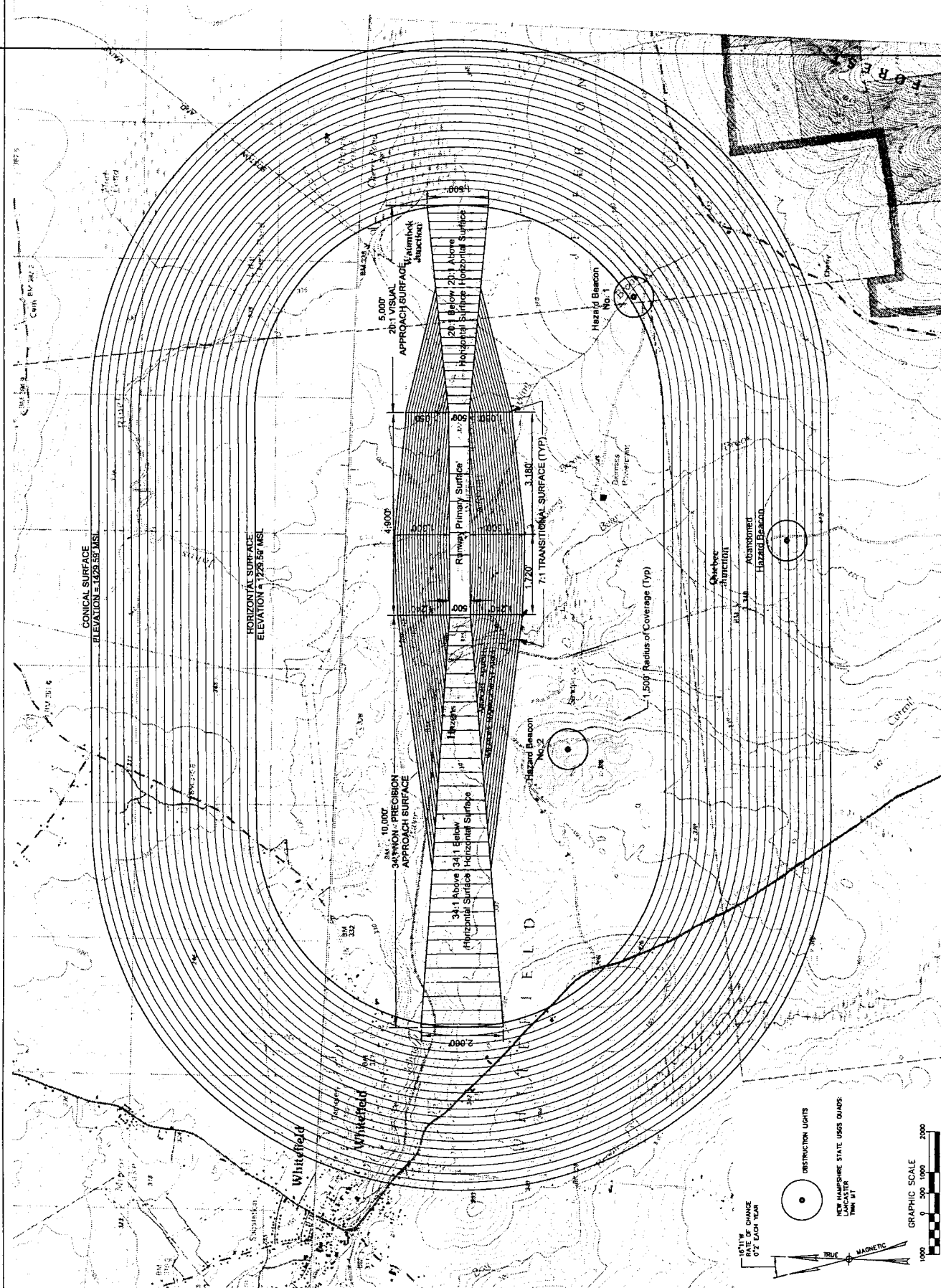
- D. Color orthorectified photographic images of the mapped areas shall be supplied as georeferenced image files that have been orthorectified to accurately display land features and object data. The images shall be 24-bit true color.
- E. An overhead photographic image of the Airport and its FAR Part 77 airspace shall be supplied. The image shall be 24-bit true color.

DATE	BY	APP'D	REVISION

MT. WASHINGTON REGIONAL AIRPORT
 WHITEFIELD, NEW HAMPSHIRE
 FAR PART 77 AIRSPACE PLAN

SCALE	DATE	BY	APP'D

PROJECT NUMBER	SHEET NUMBER	DRAWING NUMBER

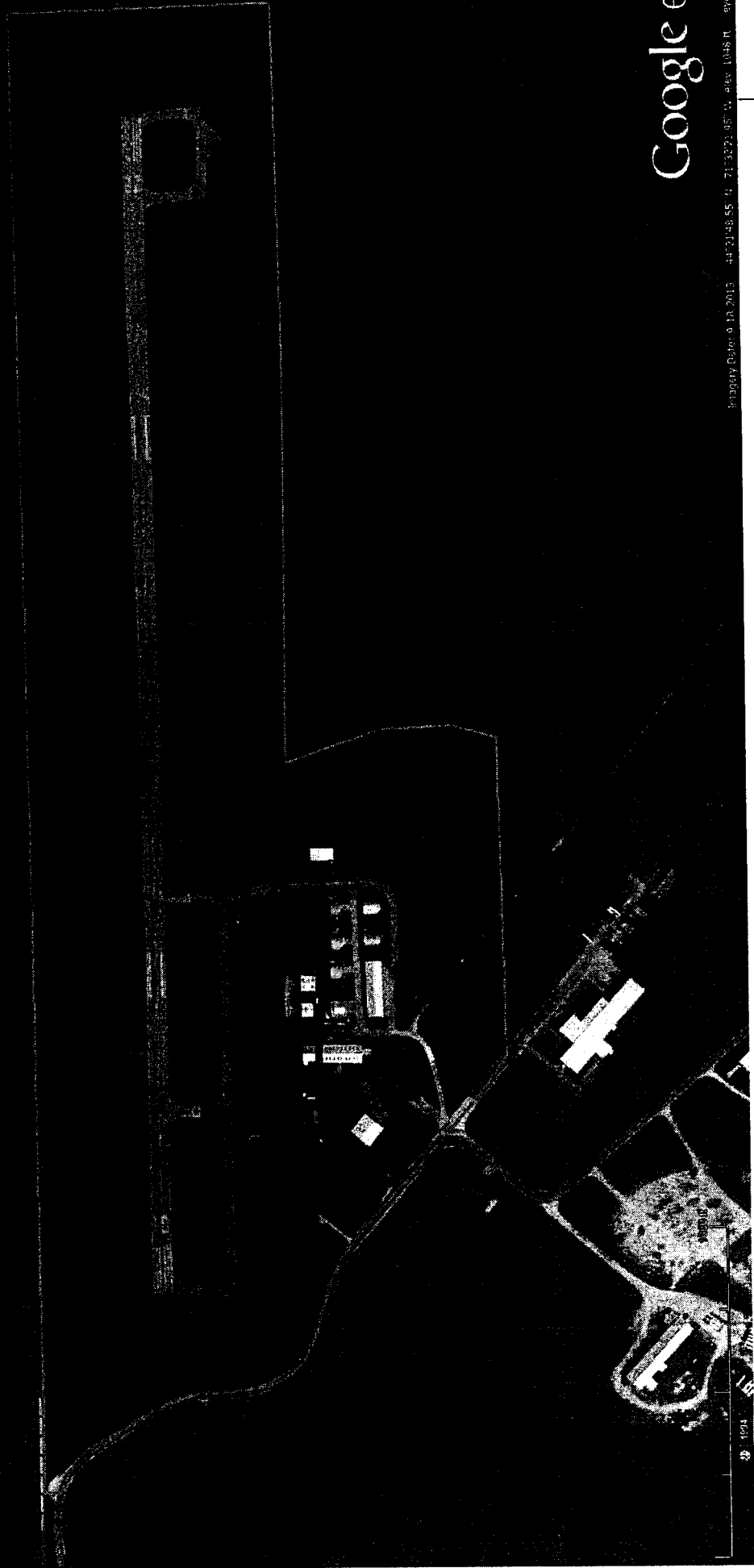


OBSTRUCTION LIGHTS

NEW HAMPSHIRE STATE USGS QUADS:
 COMPUTER
 100M DAT

GRAPHIC SCALE
 1000 0 500 1000 2000
 1 inch = 1000 feet

TRUE MAGNETIC



Google earth

Map data © 2013, Imagery © 2013, 44°21'48.55" N, 71°13'21.05" W, elev. 104.8 ft, eye alt. 5763 ft



Sign in

Google earth

Imagery Date: 9/16/2013 44°22'48.54" N 71°28'12.25" W Elev: 1403 ft

APPENDIX B

HORIZONS ENGINEERING, INC.

SCOPE OF SERVICES AND FEE PROPOSAL

Article A - Project Development & Administration

- a. Scoping Meeting –Meet with the project team to include BACS, NHDOT Bureau of Aeronautics personnel, MWRA Commission Chairman, other subconsultants and Town of Whitefield Selectpersons to determine project scope and required efforts of each team member.
- b. Site Visit – Coordinate with MWRA Commission Chairman to conduct a site visit of the facility for the purpose of evaluating drainage issues requiring ground survey, existing utilities, existing survey control and other items specific to the Scope of Services.
- c. Administration – Coordinate with BACS, subconsultants, MWRA and Town of Whitefield for issues such as site access, invoicing, CAD standards and delivery etc.
- d. Attend a project kickoff meeting at the beginning of the project and a public presentation meeting at the end of the project to present findings to the public.
- e. Attend approximately six monthly project status meetings with the MWRA Commission.
- f. Meet with Public Service Company of New Hampshire representatives regarding overhead wire issues.

Article B – Aerial Photogrammetric Control

- a. Coordinate with BACS & Kappa Mapping to establish the aerial survey limits and determine a proposed control layout.
- b. Review survey control requirements, methods and tolerances with Kappa Mapping.
- c. Determine access to target locations and notify landowners for permission if necessary.
- d. Install aerial survey targets at or near the proposed target points. The targets will consist of “T” or “X” shaped targets constructed of white building fabric or other suitable material, and sized according to Kappa Mapping recommendations. Target points located on hard surfaces will be painted on the ground. All targets will include a control point (spike or “PK” nail) in the center.
- e. Complete an aerial control survey for the horizontal and vertical locations of ground targets. The survey will be completed using static and RTK GPS methods (precision sub-centimeter). Certain targets may be located with conventional optical instruments. The current MWRA horizontal and vertical datums will be utilized.

- f. Post-process & error correct field survey results and tabulate all aerial control data into NEZD format for delivery to Kappa Mapping.
- g. Establish additional survey control as necessary, such as traverse baselines for ground topographic survey, utility survey and runway elevations. Semi-permanent control points will be established for future survey efforts.

Article C - Mapping of airport utilities, lighting, beacons, Nav aids etc.

- a. Coordinate with MWRA Commission Chairman and review existing utility drawings, as-builts and local knowledge of utility and structure locations.
- b. Complete a field survey of existing underground and overhead utilities, to include drainage structures and lines, electrical lines and conduits, overhead utility lines and poles, water lines, septic system, fuel system cables and any other identifiable utilities. Determine invert elevations, diameter and material of pipes and drainage structures as needed. Note: no excavation will take place. All utility locations will be based on observable evidence and verifiable plans of record.
- c. Locate on-airport underground power lines to airfield lighting facilities.

Article D - Topographic Surveying, Elevations & Profiles.

- a. Complete a topographic survey of the problem terminal, runway and taxiway drainage areas identified during the Site Visit. The contour interval will be determined based on field conditions, but will be no larger than two feet. Existing underdrains, drainage ways, swales, ditches, discharge points or other land features will be located.
- b. Complete a topographic and volumetric survey of the stockpiled topsoil located southerly of the terminal area. Determine if this stockpile is compromising drainage patterns.
- c. Complete a survey profile of approximately 1,600 feet of Airport Road centerline where it crosses Runway 10 to determine if approaching vehicles present airspace obstructions.
- d. Determine elevation of the center of airport rotating beacon.
- e. Determine elevation of the center of the light fixtures of the four PAPI light boxes. Determine elevation of the light beam emanating from the third light box away from the runway.
- f. Determine elevation of the runway centerline directly opposite the PAPI boxes and 300 feet in front of the light boxes.
- g. Determine elevation of the centers of the two hazard beacon lights at Airport Road and at the municipal water tower.

-
- h. Complete a survey profile of approximately 2,600 feet of the access road leading from the terminal area to the localizer at the end of runway 28. This portion of the access road is outside the aerial survey limits.
 - i. Locate any drainage structures and flows located under the localizer access road, under the runway, under the access trail from Runway 28 D-ring to localizer antennae, under the railroad etc.

Article E – Wetland Mapping Survey.

- a. Complete a field survey of delineated wetlands completed by environmental subconsultant. Wetland flags will be located with hand-held GPS methods and post processed for general sub-meter results.

Article F – Miscellaneous Surveying.

- a. Complete a field survey in the vicinity of the southeasterly corner of the taxiway/SRE building to determine possible obstruction into the taxiway.
- b. Locate the unlighted wind cone at the end of runway 28 on the northerly side.
- c. Locate the abandoned hazard beacon that exists southeasterly of Quebec Junction. Complete a reconnaissance of the approximately 7,100' power line easement running northeasterly from the abandoned beacon to the beacon on Airport Road to determine presence/condition of any poles.

Article G – Research and Access Rights

- a. Obtain copies of Airport deeds, easements etc. summarized on the Exhibit A.
- b. Research crossing rights associated with the adjacent railroad to determine legal and physical access to airport beacon and possibility of removing trees. Coordinate with railroad personnel as necessary to determine best solution.
- c. Research the location of all towers within three miles of the airport. Determine horizontal and vertical location, and ownership of any towers.
- d. Research the 7,100 foot power line easement associated with the abandoned beacon to determine land ownership and any rights that may exist.

Article H – Mapping and CAD Delivery.

- a. Compile a base map of all survey related items, to include the results of the topographic, utility survey and wetlands mapping.

-
- b. Coordinate with engineering subconsultant on layering and other CAD standards.
 - c. Transmit a working CAD drawing to BACS and engineering subconsultant in .dwg format.

Article I – Narrative, Assessments & Cost Estimates.

- a. Complete a written narrative of all findings related to this scope of services for inclusion in a final technical report.
- b. Coordinate with BACS to determine survey and/or civil engineering-related project recommendations and prepare cost proposals for such.
- c. Complete an engineering assessment of the existing terminal septic disposal system and make recommendations for improvement or replacement.
- d. Calculate volumes of excavation required of any on-airport high ground that penetrates the runway primary surfaces.

HORIZONS FEE SCHEDULE

Horizons Engineering, Inc.

Project: Obstruction Analysis and Safety Project - Mount Washington Regional Airport

DISCIPLINE	Professional Surveyor Project Manager Andy Nadeau	Professional Surveyor Project Surveyor Eric Pospesil	Professional Engineer Art Colvin	Survey Technician John Nadeau	One-person GPS Static & RTK - GPS	One Person GPS Sub-meter hand held	One Person Robotic total station
TASK							
Article A - Project Development & Administration							
a. Scoping Meeting	8						
b. Site Visit	8	8					
c. Administration	30						
d. Kickoff and public meeting	6						
e. Monthly project meetings	14						
f. PSNH Meeting	4						
Article B - Aerial Photogrammetric Control							
a. Coordination	4						
b. Survey Requirements		8					
c. Determine access		4					
d. Install aerial survey targets		4		24			
e. Aerial control survey					32		
f. Post-process GPS		16					
g. Additional survey control					6		
Article C - Mapping Utilities etc.							
a. Coordination & review ex. drawings		8					
b. Field survey							24
c. UG power lines						6	
Article D - Topographic Survey, Elevations & Profiles							
a. Topo survey, terminal, runway & taxiway areas							20
b. Topo survey topsoil stockpile							2
c. Airport Road centerline profile							2
d. Elev. Rotating beacon							2
e. Elevation PAPI							2
f. Runway centerline elev.							2
g. Elev. Hazard beacon lights							4
h. Access Road 2,600' profile							8
i. Drainage structures							16
Article E - Wetland Mapping							
a. GPS Mapping						24	
Article F - Misc. Surveying							
a. Obstruction survey							2
b. Locate windcone							1
c. Locate hazard beacon						6	
Article G - Research							
a. Deed copies	4						
b. Crossing Rights	6						
c. Tower locations	4						
d. Power line easement	4						
Article H - Mapping and CAD Delivery							
a. Compile Basemap	8	32		8			
b. CAD standards		2					
c. Transmit/Deliver	2						
Article I - Cost Estimates							
a. Narrative	8	4					
b. Recommendations	8						
c. Septic disposal assessment			6				
d. Excavation volumes			16				

TOTAL HOURS	118	86	22	32	38	36	85
Hourly Rate	\$120.00	\$92.00	\$120.00	\$60.00	\$120.00	\$90.00	\$120.00
Labor Cost	\$14,160.00	\$7,912.00	\$2,640.00	\$1,920.00	\$4,560.00	\$3,240.00	\$10,200.00

MWRA EXPENSES							
Mileage - 850 @0.56	\$476.00				TOTAL LABOR COST		\$44,632.00
Misc expenses	\$200.00				TOTAL EXPENSES		\$676.00

MWRA TOTAL FEE \$45,308.00

APPENDIX C

COLBY COMPANY ENGINEERING, INC.

SCOPE OF SERVICES AND FEE PROPOSAL

June 4, 2014

Ballantine Aviation Consulting Services, PLLC
66 Montrose Avenue
Portland, ME 04103

Subject: Mount Washington Regional Airport Airspace Analysis Proposal

Dear Rick:

Thank you for the opportunity to provide a proposal for the CAD drafting and analysis services for the proposed project.

We are really looking forward to working with you. Ballantine Aviation Consulting Services (BACS) will be providing the engineering services and we will provide the CAD drafting and analysis services. Based on this, I've outlined a scope of services below.

Project Scope

ARTICLE A – PROJECT SCOPING AND DEVELOPMENT

- a. Scoping Meeting – We will attend one meeting in Whitefield New Hampshire with representatives of the owner, the engineer, the surveyors, and the state for the initial project scoping.
- b. Review Existing Documents – We will review the existing electronic documents available for the Whitefield Municipal Airport and determine the availability and viability of the data.
- c. Provide Aerial Survey Limits – We will provide the required limits of survey to the aerial surveying company in AutoCAD DWG format. We will use the existing data provided as well as publically obtainable data (USGS quadrangle maps, aerial photographs etc.) to develop approximate limits of the imaginary surfaces. We will work with BACS to develop the preliminary imaginary surfaces.
- d. Preliminary Analysis – We will provide a preliminary analysis of the existing horizontal and conical Part 77 surfaces and publically obtainable Digital Elevation Models to determine existing ground penetrations. We will also assume an existing tree height of 100' to determine any additional areas that might require further investigation.
- e. Project scope Preparation – We will work with BACS to develop a project scope of services to determine the types of analysis required for the project.

ARTICLE B – AUTOCAD DRAFTING SERVICES

- a. Develop CAD/Drafting Standards – We will work with BACS to setup a title block and develop AutoCAD standards such as layer naming, plotting preferences, text heights etc.

We will investigate any FAA AutoCAD and drawing presentation requirements to ensure that the BACS standards will be acceptable to the state and the FAA

- b. Data File Services – We will work with the aerial surveying company and the ground surveying company to ensure that the exchange of data is accurate and compatible with AutoCAD Civil 3D 2014. Upon receiving data, we will convert and import the data files into AutoCAD Civil 3D 2014. Any AutoCAD drawing files we receive will be check and adjusted as necessary to be compatible with BACS and FAA standards in drawing functionality and presentation (text heights, text fonts, line weights, coordinate systems etc.). We will also obtain publically available Digital Elevation Model (DEM) data from New Hampshire's Statewide GIS Clearing house website or the United States Department of Agriculture's Geospatial Data Gateway website, whichever has newer data. We will then convert the DEM into usable data for analysis.
- c. Sub Consultant Plan Generation – We anticipate working with the environmental scientist to digitally develop any wetland locations or other environmental features of significance for use on various analysis plans and report graphics required to accurately portray any potential environmental impacts of the proposed recommendations.

ARTICLE C – AIRSPACE MODELING AND OBSTRUCTION ANALYSIS

- a. Runway 10-28 Existing FAR Part 77 Surfaces
 - I. Construct 3D Model of Surfaces - We will create a three-dimensional computer model utilizing AutoCAD Civil 3D, latest version, of the existing FAR Part 77 Surfaces utilizing dimensions provided by BACS. Construction of Surfaces will include:
 - Runway 10 20:1 nonprecision approach surface and associated 7:1 transitional surfaces.
 - Runway 28 20:1 visual approach surface and associated 7:1 transitional surfaces.
 - Runway 10-28 primary surface and associated 7:1 transitional surfaces.
 - II. Obstruction Analyses –We will analyze aerial photogrammetry data provided by BACS to compare the locations and heights of objects in relation to the existing FAR Part 77 surfaces to determine degree of penetration, if any exist. We will perform a supplemental analysis utilizing DEM data in areas beyond the limits of aerial photogrammetry. We will analyze the DEM data to determine if the surfaces are susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet. Analysis of surfaces will include:
 - Runway 10 20:1 nonprecision approach surface and associated 7:1 transitional surfaces.
 - Runway 28 20:1 visual approach surface and associated 7:1 transitional surfaces.
 - Runway 10-28 primary surface and associated 7:1 transitional surfaces.

- III. Initial Drawing Creation – We will produce drawings of the analysis results overlaid with aerial photographs provided by aerial photogrammetry. We will utilize publicly obtainable aerial photographs or USGS quadrangle maps in areas beyond the limits of aerial photogrammetry. Drawings will be presented at a scale of 1" = 100' and will only depict areas where obstructions were located utilizing a point number that will correspond to the data summary table in the reports. Drawings of aerial photogrammetry data will contain a color coded tag to denote the degree of penetration for each point. Drawings of DEM analysis will be created at a larger scale, to be determined based on the area of potential obstructions, and will contain colored areas to identify potential tree obstructions as well as acreages. Based on preliminary data, we anticipate approximately 11 drawings will be required to display the analysis results.
- IV. Additional Data Summary – We will prepare an ASCII "text" file summarizing the results of the aerial photogrammetry analysis. The text file will contain the results of the obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, degree of penetrations, and obstructed surfaces.
- V. Drawing Revisions – We anticipate 3 submissions of the project documents: Preliminary, Intermediate, and Final. For each submission, we will modify the created drawings based on revisions and comments provided by BACS.

b. Runway 10-28 Ultimate FAR Part 77 Surfaces

- I. Construct 3D Model of Surfaces - We will create a three-dimensional computer model utilizing AutoCAD Civil 3D, latest version, of the ultimate FAR Part 77 Surfaces utilizing dimensions provided by BACS. Construction of Surfaces will include:
- Runway 10 34:1 nonprecision approach surface and associated 7:1 transitional surfaces.
 - Runway 28, including a 500 foot extension, 20:1 visual approach surface and associated 7:1 transitional surfaces.
 - Runway 10-28, including a 500 foot extension to runway 28, primary surface and associated 7:1 transitional surfaces.
- II. Obstruction Analyses –We will analyze aerial photogrammetry data provided by BACS to compare the locations and heights of objects in relation to the ultimate FAR Part 77 surfaces to determine degree of penetration, if any exist. We will perform a supplemental analysis utilizing DEM data in areas beyond the limits of aerial photogrammetry. We will analyze the DEM data to determine if the surfaces are susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet. Analysis of surfaces will include:
- Runway 10 34:1 nonprecision approach surface and associated 7:1 transitional surfaces.

- Runway 28, including a 500 foot extension, 20:1 visual approach surface and associated 7:1 transitional surfaces.
 - Runway 10-28, including a 500 foot extension to runway 28, primary surface and associated 7:1 transitional surfaces.
-
- III. Initial Drawing Creation – We will produce drawings of the analysis results overlaid with aerial photographs provided by aerial photogrammetry. We will utilize publicly obtainable aerial photographs or USGS quadrangle maps in areas beyond the limits of aerial photogrammetry. Drawings will be presented at a scale of 1" = 100' and will only depict areas where obstructions were located utilizing a point number that will correspond to the data summary table in the reports. Drawings of aerial photogrammetry data will contain a color coded tag to denote the degree of penetration for each point. Drawings of DEM analysis will be created at a larger scale, to be determined based on the area of potential obstructions, and will contain colored areas to identify potential tree obstructions as well as acreages. Based on preliminary data, we anticipate approximately 11 drawings will be required to display the analysis results.
- IV. Additional Data Summary – We will prepare an ASCII "text" file summarizing the results of the aerial photogrammetry analysis. The text file will contain the results of the obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, degree of penetrations, and obstructed surfaces.
- V. Drawing Revisions – We anticipate 3 submissions of the project documents: Preliminary, Intermediate, and Final. For each submission, we will modify the created drawings based on revisions and comments provided by BACS.
- c. Runway 10 Visual Area Surfaces
- I. Construct 3D Model of Surfaces - We will create a three-dimensional computer model utilizing AutoCAD Civil 3D, latest version, of the various Runway 10 visual area surface (VAS) utilizing dimensions provided by BACS. VAS Surfaces will include:
- Standard VAS for Category A/B and C
 - Straight-In VAS for Category A/B
 - Straight-In VAS for Category C
- II. Obstruction Analyses –We will analyze aerial photogrammetry data provided by BACS to compare the locations and heights of objects in relation to the visual area surface (VAS) to determine degree of penetration, if any exist. We will perform a supplemental analysis utilizing DEM data in areas beyond the limits of aerial photogrammetry. We will analyze the DEM data to determine if the surfaces are susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet.

- III. Obstruction Initial Drawing Creation – We will produce drawings of the analysis results overlaid with aerial photographs provided by aerial photogrammetry. We will utilize publicly obtainable aerial photographs or USGS quadrangle maps in areas beyond the limits of aerial photogrammetry. Drawings will be presented at a scale of 1" = 100' and will only depict areas where obstructions were located utilizing a point number that will correspond to the data summary table in the reports. Drawings of aerial photogrammetry data will contain a color coded tag to denote the degree of penetration for each point. Drawings of DEM analysis will be created at a larger scale, to be determined based on the area of potential obstructions, and will contain colored areas to identify potential tree obstructions as well as acreages. Based on preliminary data, we anticipate approximately 2 drawings will be required to display the analysis results.
 - IV. Risk Assessment Initial Drawing Creation – We will produce drawings of the analysis results overlaid with aerial photographs provided by aerial photogrammetry. We will utilize publicly obtainable aerial photographs or USGS quadrangle maps in areas beyond the limits of aerial photogrammetry. Drawings will be presented at a scale of 1" = 100' and will only depict areas where obstructions were located utilizing a point number that will correspond to the data summary table in the reports. Drawings of aerial photogrammetry data will contain a color coded tag to denote the degree of penetration for each point. Drawings of DEM analysis will be created at a larger scale, to be determined based on the area of potential obstructions, and will contain colored areas to identify potential tree obstructions as well as acreages. Based on preliminary data, we anticipate approximately 2 drawings will be required to display the analysis results.
 - V. Additional Data Summary – We will prepare an ASCII "text" file summarizing the results of the aerial photogrammetry analysis. The text file will contain the results of the obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, degree of penetrations, and obstructed surfaces.
 - VI. Drawing Revisions – We anticipate 3 submissions of the project documents: Preliminary, Intermediate, and Final. For each submission, we will modify the created drawings based on revisions and comments provided by BACS.
- d. Runway 10 PAPI OCS
- I. Construct 3D Model of Surfaces - We will create a three-dimensional computer model utilizing AutoCAD Civil 3D, latest version, of the Runway 10 precision approach path indicator (PAPI) obstacle clearance surface (OCS) utilizing dimensions provided by BACS.
 - II. Obstruction Analyses –We will analyze aerial photogrammetry data provided by BACS to compare the locations and heights of objects in relation to the Runway 10 precision approach path indicator (PAPI) obstacle clearance surface (OCS) to determine degree of penetration, if any exist. We will perform a supplemental

analysis utilizing DEM data in areas beyond the limits of aerial photogrammetry. We will analyze the DEM data to determine if the surfaces are susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet.

- III. Initial Drawing Creation – We will produce drawings of the analysis results overlaid with aerial photographs provided by aerial photogrammetry. We will utilize publicly obtainable aerial photographs or USGS quadrangle maps in areas beyond the limits of aerial photogrammetry. Drawings will be presented at a scale of 1" = 100' and will only depict areas where obstructions were located utilizing a point number that will correspond to the data summary table in the reports. Drawings of aerial photogrammetry data will contain a color coded tag to denote the degree of penetration for each point. Drawings of DEM analysis will be created at a larger scale, to be determined based on the area of potential obstructions, and will contain colored areas to identify potential tree obstructions as well as acreages. Based on preliminary data, we anticipate approximately 2 drawings will be required to display the analysis results.
 - IV. Additional Data Summary – We will prepare an ASCII "text" file summarizing the results of the aerial photogrammetry analysis. The text file will contain the results of the obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, degree of penetrations, and obstructed surfaces.
 - V. Drawing Revisions – We anticipate 3 submissions of the project documents: Preliminary, Intermediate, and Final. For each submission, we will modify the created drawings based on revisions and comments provided by BACS.
- e. Hazard Beacon No. 1
- I. Construct 3D Model of Surfaces - We will create a three-dimensional computer model utilizing AutoCAD Civil 3D, latest version, of the Hazard Beacon No. 1 area of coverage (HBAC) utilizing dimensions provided by BACS.
 - II. Obstruction Analyses – We will analyze aerial photogrammetry data provided by BACS to compare the locations and heights of objects in relation to the Hazard Beacon No. 1 area of coverage (HBAC) to determine degree of penetration, if any exist. We will perform a supplemental analysis utilizing DEM data in areas beyond the limits of aerial photogrammetry. We will analyze the DEM data to determine if the surfaces are susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet.
 - III. Initial Drawing Creation – We will produce drawings of the analysis results overlaid with aerial photographs provided by aerial photogrammetry. We will utilize publicly obtainable aerial photographs or USGS quadrangle maps in areas beyond the limits of aerial photogrammetry. Drawings will be presented at a scale of 1" = 100' and will only depict areas where obstructions were located utilizing a

point number that will correspond to the data summary table in the reports. Drawings of aerial photogrammetry data will contain a color coded tag to denote the degree of penetration for each point. Drawings of DEM analysis will be created at a larger scale, to be determined based on the area of potential obstructions, and will contain colored areas to identify potential tree obstructions as well as acreages. Based on preliminary data, we anticipate approximately 1 drawing will be required to display the analysis results.

- IV. Additional Data Summary – We will prepare an ASCII “text” file summarizing the results of the aerial photogrammetry analysis. The text file will contain the results of the obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, degree of penetrations, and obstructed surfaces.
 - V. Drawing Revisions – We anticipate 3 submissions of the project documents: Preliminary, Intermediate, and Final. For each submission, we will modify the created drawings based on revisions and comments provided by BACS.
- f. Hazard Beacon No. 2
- I. Construct 3D Model of Surfaces - We will create a three-dimensional computer model utilizing AutoCAD Civil 3D, latest version, of the Hazard Beacon No. 2 area of coverage (HBAC) utilizing dimensions provided by BACS.
 - II. Obstruction Analyses – We will analyze aerial photogrammetry data provided by BACS to compare the locations and heights of objects in relation to the Hazard Beacon No. 2 area of coverage (HBAC) to determine degree of penetration, if any exist. We will perform a supplemental analysis utilizing DEM data in areas beyond the limits of aerial photogrammetry. We will analyze the DEM data to determine if the surfaces are susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet.
 - III. Initial Drawing Creation – We will produce drawings of the analysis results overlaid with aerial photographs provided by aerial photogrammetry. We will utilize publicly obtainable aerial photographs or USGS quadrangle maps in areas beyond the limits of aerial photogrammetry. Drawings will be presented at a scale of 1" = 100' and will only depict areas where obstructions were located utilizing a point number that will correspond to the data summary table in the reports. Drawings of aerial photogrammetry data will contain a color coded tag to denote the degree of penetration for each point. Drawings of DEM analysis will be created at a larger scale, to be determined based on the area of potential obstructions, and will contain colored areas to identify potential tree obstructions as well as acreages. Based on preliminary data, we anticipate approximately 1 drawing will be required to display the analysis results
 - IV. Additional Data Summary – We will prepare an ASCII “text” file summarizing the results of the aerial photogrammetry analysis. The text file will contain the results

of the obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, degree of penetrations, and obstructed surfaces.

- V. Drawing Revisions – We anticipate 3 submissions of the project documents: Preliminary, Intermediate, and Final. For each submission, we will modify the created drawings based on revisions and comments provided by BACS.

g. Airport Rotating Beacon

- I. Construct 3D Model of Surfaces - We will create a three-dimensional computer model utilizing AutoCAD Civil 3D, latest version, of the airport rotating beacon (ARB) utilizing dimensions provided by BACS.
- II. Obstruction Analyses – We will analyze aerial photogrammetry data provided by BACS to compare the locations and heights of objects in relation to the airport rotating beacon (ARB) to determine degree of penetration, if any exist. We will perform a supplemental analysis utilizing DEM data in areas beyond the limits of aerial photogrammetry. We will analyze the DEM data to determine if the surfaces are susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet.
- III. Initial Drawing Creation – We will produce drawings of the analysis results overlaid with aerial photographs provided by aerial photogrammetry. We will utilize publicly obtainable aerial photographs or USGS quadrangle maps in areas beyond the limits of aerial photogrammetry. Drawings will be presented at a scale of 1" = 100' and will only depict areas where obstructions were located utilizing a point number that will correspond to the data summary table in the reports. Drawings of aerial photogrammetry data will contain a color coded tag to denote the degree of penetration for each point. Drawings of DEM analysis will be created at a larger scale, to be determined based on the area of potential obstructions, and will contain colored areas to identify potential tree obstructions as well as acreages. Based on preliminary data, we anticipate approximately 1 drawing will be required to display the analysis results
- IV. Additional Data Summary – We will prepare an ASCII "text" file summarizing the results of the aerial photogrammetry analysis. The text file will contain the results of the obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, degree of penetrations, and obstructed surfaces.
- V. Drawing Revisions – We anticipate 3 submissions of the project documents: Preliminary, Intermediate, and Final. For each submission, we will modify the created drawings based on revisions and comments provided by BACS.

h. Potential Hazard Beacon Locations

- I. Construct 3D Model of Surfaces – Based on recommendations for potential hazard beacon locations from BACS, we will create a three-dimensional computer model utilizing AutoCAD Civil 3D, latest version, of potential hazard beacons utilizing dimensions and locations provided by BACS. We anticipate 5 locations where potential hazard beacons may be required based on preliminary analysis.
- II. Obstruction Analyses – Based on recommendations for potential hazard beacon locations from BACS, we will analyze aerial photogrammetry data provided by BACS to compare the locations and heights of objects in relation to the potential hazard beacons degree of penetration, if any exist. We will perform a supplemental analysis utilizing DEM data in areas beyond the limits of aerial photogrammetry. We will analyze the DEM data to determine if the surfaces are susceptible to tree obstructions on high terrain by overlaying the DEM with a range of tree heights in 10-foot increments up to a maximum of 100 feet. We anticipate 5 locations where potential hazard beacons may be required based on preliminary analysis.
- III. Initial Drawing Creation – Based on recommendations for potential hazard beacon locations from BACS, we will produce drawings of the analysis results overlaid with aerial photographs provided by aerial photogrammetry. We will utilize publicly obtainable aerial photographs or USGS quadrangle maps in areas beyond the limits of aerial photogrammetry. Drawings will be presented at a scale of 1" = 100' and will only depict areas where obstructions were located utilizing a point number that will correspond to the data summary table in the reports. Drawings of aerial photogrammetry data will contain a color coded tag to denote the degree of penetration for each point. Drawings of DEM analysis will be created at a larger scale, to be determined based on the area of potential obstructions, and will contain colored areas to identify potential tree obstructions as well as acreages. We anticipate 5 locations where potential hazard beacons may be required based on preliminary analysis. We anticipate approximately 1 drawing will be required to display each of the analysis results.
- IV. Additional Data Summary – We will prepare an ASCII "text" file summarizing the results of the aerial photogrammetry analysis. The text file will contain the results of the obstruction analysis data including object descriptions, New Hampshire state plane grid coordinates, object longitude and latitude, object elevations, degree of penetrations, and obstructed surfaces.
- V. Drawing Revisions – We anticipate 3 submissions of the project documents: Preliminary, Intermediate, and Final. For each submission, we will modify the created drawings based on revisions and comments provided by BACS.

ARTICLE D – HAZARD BEACON CONSTRUCTION COST ESTIMATES

- a. Estimate Construction Costs – Based on the locations of potential hazard beacons provided by BACS, we will provide planning level construction cost estimates for the potential hazard beacon work that would be required per BACS recommendations. Cost

estimates may include upgrading, relocating or removing existing hazard beacons as well as any new hazard beacons that may be proposed. We will provide these estimates by determining existing power locations, proposed power requirements as well as any underground or overhead routing required. We will take into account any potential railroad, wetland, private property crossings that might be required. We anticipate approximately a day per beacon to develop the cost estimate and based on preliminary analysis we are anticipating approximately 5 different locations where hazard beacon work may be required.

ARTICLE E – CREATING AUTOCAD BASED FIGURES

- a. Report Graphics – We will develop any report graphics that are required by BACS in electronic image format such as JPG, PDF, TIF etc. as required. We will export these graphics from the AutoCAD drawings that were developed as part of the analysis. We anticipate that these graphics will be exported from plans that have been generated for the analysis

ARTICLE F – PROJECT SUBMISSIONS

- a. Plan Copies – We anticipate 3 submissions of the project documents: Preliminary, Intermediate, and Final. We will provide 1 color bond paper copy of the drawings at 24"x36", to scale, for each submission.
- b. Report copies – We anticipate 3 submissions of the project documents: Preliminary, Intermediate, and Final. We will provide 1 color bond paper copy of the drawings at 11"x17", not to scale, for each submission.

Schedule

Colby Co. will support your team's project schedule. We anticipate that after the project award, we will create a design and construction schedule with you that will outline the deliverables and the due dates, and include the review periods and meeting times.

Fee Proposal

Colby Co. will provide the scope and deliverables listed above based on the attached fee schedule.

Exclusions

For the purposes of this proposal, the following items have been excluded from Colby Co.'s scope.

- Civil engineering and Survey services
- Noise studies and/or acoustical engineering
- Site subsurface geotechnical evaluations
- Architectural services
- Environmental engineering and permitting
- Work related to subdivision of the property
- Traffic studies, analysis and permitting
- Hazardous waste testing and/or mitigation work
- Wetland mitigation, planning, permitting design and implementation

- Permit application fees, newspaper advertising costs, and peer review expenses
 - Engineering services not specifically discussed above
-

Colby Co. can provide services which have been excluded above. Should any of these items become necessary during the process of this project's development, Colby Co. would be pleased to provide a proposal for these services.

Thank you for contacting Colby Company for your engineering needs. Please do not hesitate to call with any questions,

Sincerely,

Bradley R. Van Damm
Colby Co. Engineering
47A York Street
Portland, Maine 04101
207.553.7753 (Main)
207.553.7794 (Direct)
207.321.1703 (Cell)

Cc Calen Colby – Colby Co.
Sarah Emily Colby – Colby Co.

Mount Washington Regional Airport Airspace Analysis Proposal
Fee Schedule
June 4, 2014

Task	PM/QC	Sr. Eng	Jr. Eng	CADD
A: Project Scoping and Development				
a. Scoping Meeting				10
b. Review Existing Documents				8
c. Provide Aerial Survey Limits				4
d. Preliminary Analysis				4
e. Project Scope Preparation	2			24
B: AutoCAD Drafting Services				
a. Develop CAD/Drafting Standards				8
b. Data File Services				16
c. Sub Consultant Plan Generation				16
C: Airspace Modeling and Obstruction Analysis				
a. Runway 10 Existing FAR Part 77 Surfaces				
a.I Construct 3D Models of Surfaces				8
a.II Obstruction Analysis				4
a.III Initial Drawing Creation				16
a.IV Additional Data Summary				1
a.V Drawing Revisions	1			16
b. Runway 10 Ultimate FAR Part 77 Surfaces				
b.I Construct 3D Models of Surfaces				8
b.II Obstruction Analysis				4
b.III Initial Drawing Creation				16
b.IV Additional Data Summary				1
b.V Drawing Revisions	1			16
c. Runway 10 Visual Area Surfaces				
c.I Construct 3D Models of Surfaces				8
c.II Obstruction Analysis				4
c.III Obstruction Initial Drawing Creation				8
c. IV Risk Assessment Initial Drawing Creation				8
c.V Additional Data Summary				1
c.VI Drawing Revisions	1			16
d. Runway 10 PAPI OCS				
d.I Construct 3D Models of Surfaces				2
d.II Obstruction Analysis				1
d. III Initial Drawing Creation				4
d. IV Additional Data Summary				1
d.V Drawing Revisions	1			4

Mount Washington Regional Airport Airspace Analysis Proposal
Fee Schedule
June 4, 2014

Task	PM/QC	Sr. Eng	Jr. Eng	CADD
e. Hazard Beacon No. 1				
e. I Construct 3D Models of Surfaces				2
e. II Obstruction Analysis				1
e. III Initial Drawing Creation				4
e. IV Additional Data Summary				1
e. V Drawing Revisions	1			4
f. Hazard Beacon No. 2				
f. I Construct 3D Models of Surfaces				2
f. II Obstruction Analysis				1
f. III Initial Drawing Creation				4
f. IV Additional Data Summary				1
f. V Drawing Revisions	1			4
g. Airport Rotating Beacon				
g. I Construct 3D Models of Surfaces				2
g. II Obstruction Analysis				1
g. III Initial Drawing Creation				4
g. IV Additional Data Summary				1
g. V Drawing Revisions	1			4
h. Potential Hazard Beacon Locations				
h. I Construct 3D Models of Surfaces				10
h. II Obstruction Analysis				5
h. III Initial Drawing Creation				10
h. IV Additional Data Summary				1
h. V Drawing Revisions	1			10
D: Hazard Beacon Construction Cost Estimates				
a. Estimate Construction Costs		40		
E. Creating AutoCAD Based Figures				
a. Report Graphics				8
F. Project Submission				
a. Plan Copies				16
b. Report Copies				16
Hourly Totals	10	40	0	349
Rates	\$120	\$120	\$105	\$65
Discipline Totals	\$1,200	\$4,800	\$0	\$22,685
Travel/Lodging/Meals:				
Printing:			\$450.00	
Project Total:			\$29,135.00	

APPENDIX D

ECO ENVIRONMENTAL SERVICES, LLC

SCOPE OF SERVICES AND FEE PROPOSAL

ECO Environmental Solutions, LLC

P.O. Box 490
Charlestown, NH 03603

June 9, 2014

Mr. Richard D. Yarnold, PE
Ballantine Aviation Consulting Services, PLLC
66 Montrose Avenue
Portland ME, 04103

Environmental Scope of Services

ECO Environmental Solutions, LLC will provide the following services to Ballantine Aviation Consulting Services, PLLC in support of the Mountain Washington Regional Airport, Whitefield, NH.

TASK 1 – ADMINISTRATION

- 1.1 Scoping Meeting** – Attend one (1) scoping meeting with BACS, Mt. Washington Regional Airport Representatives, and NHDOT officials, to review and discuss the project’s objectives and proposed scope of work.
- 1.2 Coordination with BACS** – EES will communicate and coordinate with BACS over the duration of this project to ensure a comprehensive understanding of the project’s goals and objectives, discuss technical data/information and to assure the quality of project deliverables.
- 1.3 Prepare and Submit EES Scope of Services and Fee Proposal** – Prepare and submit a detailed scope of services and fee proposal to BACS. This scope and fee will be based on consultation with BACS, the attendance of the pre-scoping meeting, and the review of any data/information pertinent to the development of the scope of service and fee proposal compiled under Task 2.1.
- 1.4 Prepare and Submit EES Invoice(s)** – Prepare and submit invoice(s) to BACS for the work efforts completed in accordance with this scope of services and fee proposal.

TASK 2 – DATA COLLECTION

- 2.1 Compile and Review Facility Environmental Documents** – EES will assemble and review pertinent facility environmental documentation such as but not limited to; Environmental Assessments, Airport Master Plan, wildlife hazard control plans, conservation easements, and permits to identify environmental concerns at or in the vicinity of the airport. Wetland resource information and the Airport’s Facility Storm

Water Pollution Prevention Plan will be gathered and reviewed under separate tasks.

- 2.2 Consult Resource Agencies** – EES will consult with environmental resource agencies by submission of a letter containing a general project description along with plans depicting the location of the project site in order to obtain information regarding any sensitive environmental resource in the vicinity of the proposed project. These agencies include but are not limited to the NH Natural Heritage Program, NH Fish and Game, U.S Fish and Wildlife Service, and the Natural Resource Conservation Service. EES will forward agency responses upon receipt to BACS.
- 2.3 Consult NH SHPO** – EES will meet with the NH State Historic Preservation Office in order to obtain information of historic, cultural, or archaeological significance located within or near the proposed project area. EES will prepare a write-up and compile any information gathered during the meeting and forward the findings to BACS.
- 2.4 Consult USDA** – EES will meet on site with a representative from the United States Department of Agriculture to perform a wildlife hazard assessment-SITE VISIT of the Airport to observe wildlife species considered to be threats or nuisance to safe Airport operations and discuss recommendations to control such wildlife hazards. EES will prepare a write-up and compile any information gathered during the meeting and forward the findings to BACS.
- ~~**2.5 Review Obstruction Analysis** – EES will review the pertinent obstruction analysis data and plans upon receipt from BACS. This information will used to assess the location of obstructions, probable access routes to the areas of obstructions, topography, elevation of identified objects, and to assess the overall extent of field observations to be performed under task 2.9.~~
- 2.6 Compile and Review Wetland Resource Information** – EES will assemble and examine any available wetland resource information in the vicinity of the proposed project. The resources that will be searched will include but not limited to; previous wetland delineation data of the Airport, National Wetland Inventory Maps, USGS Quads, NRCS County Soil Surveys, forestry surveys, and aerial photos. Both hard and electronic copies of information will be examined in addition to the use of (Google Earth) in order to facilitate the determination of probable wetland areas in the proposed project area.
- ~~**2.7 Analyze Obstruction/Wetland Resource Information** – EES will overlay and analyze in union the obstruction and wetland information to render an opinion as to the probable location of wetlands to the proximity of obstructions within the project area. Any evidence indicating the probability of wetland areas located within the proposed project area will be sketched on a plan for use in the field by EES. In the event EES is unable to access non airport properties containing obstructions, during Field Observation Task 2.8, to corroborate the probability of wetlands in the area then this effort will provide the basis in which EES will provide an opinion as to their occurrence.~~

~~2.8 — **Field Observations** — EES will conduct field observations of the areas identified as containing obstructions to substantiate existence of wetlands, to determine the overall dominant vegetative type (species), and to determine the current height of the dominant specie within the area of obstructions by measuring vertical height with the use of a hand held instrument. Based on the Mt. Washington Regional Airport's 2005 airspace analysis approximately 10 or more locations will be assessed. In addition, a photo along with the coordinates of each location will be taken for use in the Field Observation Report. In the event ESS is unable to access non-airport properties containing obstructions to determine and calculate the height of the dominant tree species then an aerial photo interpretation of the tree top canopy will be utilized to provide the basis in which ESS will provide an opinion as to the dominant tree species and approximate height of the trees.~~

~~2.9 — **Field Observations Report** — EES will prepare a report detailing the following field observations: opinion as to existence of wetlands, the dominant tree species and their current height and future maximum growth potential. In addition, a plan will be prepared depicting the location of each observation area.~~

TASK 3 – FACILITY SWPPP UPDATE

- 3.1 Review 2005 Airport SWPPP** – EES will thoroughly review Mt Washington Regional Airport's 2005 Storm Water Pollution Prevention Plan (SWPPP) to evaluate and determine the required changes to meet current regulatory requirements and update the SWPPP.
- 3.2 Data Collection** – EES will meet with Airport Manager to discuss the required updates to the SWPPP including materials handling and storage procedures and Best Management Practices to be used at the Airport. EES will review facility upgrades that affect storm water flow and conduct an inventory of significant materials stored at the Airport and in buildings/hangars located on Airport property.
- 3.3 Update SWPPP** – EES will update the 2005 SWPPP to meet current regulatory requirements including modifying spill contact list, SWPP Team Roster, materials inventories of hangars and Airport, recommending BMP's, and updating checklist and spill control measures. This update is intended to be appended to the 2005 SWPPP as required.
- 3.4 Update SWPPP Storm Water Flow Plan** – EES will modify the outdated storm water flow plan based on new facilities at the Airport and changes in storm water flow since 2005. This plan will be produced by BACS. EES will provide comment and review during the preparation of the plan and be responsible for acceptance of completion of the new storm water plan.

3.5 Assemble and Submit Draft SWPPP Update – EES will assemble and submit up to five (5) copies of the Draft SWPPP for review and comment by the Airport Manager and representatives.

3.6 Edit and Assemble FINAL SWPPP Update – EES will incorporate any revisions or changes to the SWPPP as recommended by Airport Officials. EES will assemble two (2) Final SWPPP Update copies for the Airport Manger.

3.7 Present Final SWPPP Update – EES will present the final SWPPP update to Airport Officials and review the procedures to maintain the SWPPP and regulatory compliance. This update is intended to be appended to the 2005 SWPPP as required.

Respectfully,
ECO Environmental Solutions, LLC

[ORIGINAL SIGNED BY]

Christopher Spaulding, NHCWS
Principal/Environmental Scientist

Enc:

FEE SUMMARY

ECO Environmental Solutions, LLC

ECO Environmental Solutions, LLC

Tasks	Hourly Rate	Christopher Spaulding President	Rate	Rate	Task Line Item Cost (Including OH & Profit)
Task 1 - Task Order Administration					
1.1 Attend Scoping Meeting		10			\$ 1,400.00
1.2 Coordinate with BACS		16			\$ 2,240.00
1.3 Prepare and Submit EES Scope of Services and Fee Proposal		10			\$ 1,400.00
1.4 Prepare and Submit EES Invoice(s) to BACS		2			\$ 280.00
Task 1 Subtotals		38			\$ 5,320.00
Task 2 - DATA COLLECTION					
2.1 Compile and Review Environmental Documents		8			\$ 1,120.00
2.2 Consult Resource Agencies		4			\$ 560.00
2.3 Consult NHSHPO		10			\$ 1,400.00
2.4 Consult USDA - Wildlife Hazard Assessment		16			\$ 2,240.00
2.5 Review Obstruction Analysis		0			\$ -
2.6 Compile and Review Wetland Resource Information		16			\$ 2,240.00
2.7 Analyze Obstruction/Wetland Resource Information		0			\$ -
2.8 Conduct Field Observations		0			\$ -
2.9 Field Observations Report		0			\$ -
Task 2 Subtotals		54			\$ 7,560.00
Task 3 - FACILITY SWPPP UPDATE					
3.1 Review 2005 Airport SWPPP		8			\$ 1,120.00
3.2 Data Collection		16			\$ 2,240.00
3.3 Update SWPPP		40			\$ 5,600.00
3.4 Update Storm Water Flow Plan		4			\$ 560.00
3.5 Submit Draft SWPPP		8			\$ 1,120.00
3.6 Edit SWPPP		8			\$ 1,120.00
3.7 Present Final Draft SWPPP		8			\$ 1,120.00
Task 3 Subtotals		92			\$ 12,880.00
Total Hours		184			
Total Direct Labor					\$ 9,200.00

Expenses	Hours	Rate	Amount	Notes
Task 1.1 - (1) Trip to Charlestown, NH - Whitefield, NH (280 miles @ \$0.56)	156.80		\$ 87.50	EES TOTAL DIRECT LABOR COST
Meals	25.00		\$ 25.00	
Task 2.3 - (1) Trip to Charlestown, NH - Concord, NH (150 miles @ \$0.56)	84.00	150.00%	\$ 126.00	EES OVERHEAD @ 150.00%
Meals	25.00		\$ 25.00	
Task 2.4 - (1) Trip to Charlestown, NH - Whitefield, NH (280 miles @ \$0.56)	156.80		\$ 87.50	EES TOTAL LABOR COST
Meals	50.00		\$ 50.00	
Task 2.8 - (1) Trip to Charlestown, NH - Whitefield, NH (280 miles @ \$0.56)	150.00	12%	\$ 18.00	EES PROFIT @ 12%
Meals	-		\$ -	
Task 3.2 - (1) Trip to Charlestown, NH - Whitefield, NH (280 miles @ \$0.56)	156.80		\$ 87.50	SUBTOTAL
Meals	50.00		\$ 50.00	
Task 3.7 - (1) Trip to Charlestown, NH - Whitefield, NH (280 miles @ \$0.56)	156.80		\$ 87.50	EES EXPENSES
Meals	25.00		\$ 25.00	
Reproduction (anticipated \$54 per copy of SWPPP)	500.00		\$ 500.00	ECO ENVIRONMENTAL FEE
Mailing/Miscellaneous (general, hard copies of SWPPP)	250.00		\$ 250.00	
Total Expenses			\$ 1,936.20	