

PROJECT MANUAL

for

Off-Airport Habitat Mitigation

at the

Towns of Wilton and Northumberland

**County Bid # 20-PWOAHM-7
FAA AIP 3-36-0004-036-2019
NYSDOT PIN 1902.56**

**SARATOGA COUNTY DEPARTMENT OF PUBLIC WORKS
3654 GALWAY ROAD
BALLSTON SPA, NEW YORK 12020
TELEPHONE: 518-885-2235**



**KEITH R. MANZ, P.E.
COMMISSIONER**

**THOMAS A. SPEZIALE
DEPUTY COMMISSIONER**

April, 2020



McFarland Johnson
60 Railroad Place, Suite 402
Saratoga Springs, New York 12866
(518) 580-9380



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Notice – This document may not be modified without the permission of an authorized representative of Saratoga County.

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INVITATION TO BIDDERS

Notice is hereby given that sealed bids will be received until 1:30 p.m., May 6, 2020, at the Saratoga County Department of Purchasing, 50 West High Street, Ballston Spa, New York, 12020 at which time bids will be publicly opened and read aloud for the **OFF-AIRPORT HABITAT MITIGATION** located in the **Towns of Wilton and Northumberland** covered by specification County Bid #20-PWOAHM-7.

No pre-bid conferences will be held for this project. Prospective bidders are advised to visit the site and become familiar with existing conditions. All questions should be directed to the consultant engineer McFarland Johnson, Turner Bradford, tbradford@mjinc.com

Bid Documents may be obtained on or after April 8, 2020 from The Empire State Bid System at no cost from the following website:

<http://www.empirestatebidsystem.com/Saratoga-County.asp?AgencyID=2439&PageType=open>

Each bidder must deposit with his bid, a bid security in the amount of not less than five percent (5%) of his bid, in the form and subject to the conditions provided in the Information to Bidders.

Simultaneously with his executed contract, the successful bidder must deliver to the County of Saratoga an executed performance and completion bond in a form meeting the County's approval, in an amount not less than 100% of the accepted bid as security for the faithful performance and completion of this contract, and also a separate bond guaranteeing prompt payment of monies due to all persons supplying the contractors or subcontractors with labor and materials employed and used in carrying out the contract, and having as surety on the bonds such surety companies as are approved or acceptable to the County of Saratoga.

Saratoga County, through its Purchasing Department, reserves the right to reject any or all bids. All work shall be subject to equal opportunity in employment, State wage rates and all other requirements in accordance with applicable law.

JOHN WARMT
Director of Purchasing
Saratoga County

INFORMATION TO BIDDERS

1. Receipt and Opening of Bids:

The County of Saratoga (herein called the "Owner") invites bids on the form attached hereto. All blanks must be appropriately filled in. Bids will be received by the Owner at the Office of General Services, 50 West High Street, Ballston Spa, New York 12020, until 1:30 p.m. May 6, 2020, and then at said office publicly opened and read aloud. The envelope containing the bids must be sealed and addressed to the Owner at the address in the Invitation to Bidders, and designated as bid for:

Off-Airport Habitat Mitigation

The Owner may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered.

The project has been broken into base bid and add alternate to allow for the most amount of work to be funded. The project will either be awarded the base bid or the base bid and the add alternate based on available funding.

2. Preparation of Bid:

A. The following is a list of documents that must be completed and returned with the bid package:

- Form of Bid
- 5% Bid Security (Bid Bond or Certified Check)
- Non-Collusive Bidding Certificate
- Certification of Compliance with the Iran Divestment Act
- Sexual Harassment Certification
- FAA Proposed DBE and Small Business Utilization Certification
- Safety Plan Compliance Document Certification
- SWPPP Compliance Certification
- Trade Restriction Certification
- Buy American Compliance Certification
- Debarment and Suspension Certification
- EEO Report Statement Certification
- Non-Segregated Facilities Certification
- US Government and State Taxes Paid Certification
- Contractor Reference Sheet
- Contractor's Qualification Statement
- Corporate Bid Resolution
- Indemnity and Insurance Agreement

PLEASE DO NOT SUBMIT THE ENTIRE PROJECT MANUAL WITH YOUR BID.

- B. All blank spaces in the bid must be filled in, and, except as otherwise expressly provided in the Bidding Documents, no other change is to be made in the phraseology of the bid or in the items mentioned therein.
- C. Bids that are illegible or that contain omissions, alterations, additions, or items not called for in the Bidding Documents may be rejected as informal. In the event any Bidder modifies, limits, or restricts all or any part of the bid in a manner other than that expressly provided for in the Bidding Documents, that bid will be rejected as informal.
- D. If the bid is made by a corporation, the names and places of residence for the president, secretary, and treasurer shall be given. If by a joint venture, the names and addresses of the members of the joint venture shall be given. If by an individual, that person's name and place of residence shall be

INFORMATION TO BIDDERS

given.

E. Saratoga County may consider informal any bid not prepared and submitted in accordance with the provisions hereof and accompanied by a bid security in the proper form and may waive any informalities or reject any and all bids. Any bid may be considered informal which does not contain prices in words and figures in all of the spaces provided. In case any price shown in words and its equivalent shown in figures do not agree, the written words shall be binding upon the Bidder. Any bid may be withdrawn prior to the above scheduled time for the opening of bid or authorized postponement thereof.

3. Subcontractors:

The bidder is specifically advised that any person, firm, or other party to whom it is proposed to award a subcontract under this contract must be acceptable to Saratoga County.

4. Qualifications of Bidder:

Saratoga County may make such investigations as deemed necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish all such information and data for this purpose as requested. Saratoga County reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the County that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional bids will not be acceptable. All prospective bidders shall have completed projects of this nature and size previously, within similar time constraints. All prospective bidders shall furnish Saratoga County with a listing of no less than three (3) previous similar project successfully completed.

5. Liquidated Damages for Failure to Enter into Contract:

The successful bidder, upon his failure or refusal to execute and deliver the contract and bonds required within 10 days after he has received notice of the acceptance of his bid, shall forfeit to Saratoga County, as liquidated damages for such failure or refusal, the security deposited with his bid.

6. Time of Completion:

Bidder must agree to commence work on a date to be specified in a written "Notice to Proceed" of the owner and to fully complete the project as proposed. The "Notice to Proceed" will not be issued until the County's ongoing timber harvesting is complete. The Time of Completion shall be as follows:

Base Bid:	120 Calendar Days
<u>Add-Alternate:</u>	<u>160 Calendar Days</u>
Total for Base Bid	
And Add-Alternate:	280 Calendar Days

Liquidated Damages -

The bidder must also agree to liquidated damages in the amount of \$1,500 per calendar day beyond the completion date listed in the Notice to Proceed based upon the calendar days listed in the Contract. The amount of liquidated damages is based upon the on-going cost for the County to inspect the project if it exceeds the calendar days stipulated above. If the shortage or availability of material prevents completion, the time may be extended at the option and consent of the Owner.

7. Conditions of Work:

Each bidder must inform himself fully of the conditions relating to construction of the project and the employment of labor thereon. Failure to do so will not relieve successful bidder of his obligation to furnish all materials and labor necessary to carry out the provisions of his contract. Insofar as possible, the contractor, in carrying out his work, must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor.

8. Addenda and Interpretations:

INFORMATION TO BIDDERS

No interpretations of the meaning of the specifications or other bid documents will be made to any bidder orally. Every request for such interpretation should be in writing addressed to:

McFarland Johnson
Turner Bradford
tbradford@mjinc.com

Any oral discussions between the bidder and Saratoga County are to be considered informal and not binding. Any supplemental instructions will be in the form of written addenda. Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his bid as submitted. All addendum, so issued, shall become part of the contract documents.

9. Security for Faithful Performance:

Simultaneously, with his delivery of the executed contract, the contractor shall furnish a surety bond or bonds as security for faithful performance of this contract and for the payment of all persons performing labor on the project under this contract and furnishing materials in connection with project under this contract, as specified in the General Conditions included herein. The surety on such bonds shall be a duly authorized surety company satisfactory to Saratoga County.

10. Power of Attorney:

Attorneys-in-fact who sign bid bonds or contract bonds must file, with each bond, a certified and effectively dated copy of their power of attorney.

11. Notice of Special Conditions:

Attention is particularly called to those parts of the contract documents and specifications which deal with the following:

- Insurance Requirements
- Wage Rates
- Contractor Experience
- Contract Requirements
- Special Conditions
- Supplemental Conditions

12. Laws and Regulations:

Bidders attention is directed to the fact that all applicable State laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

13. Obligation of Bidder:

At the time of the opening of bids, each bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the plans and contract documents (including all addenda). The failure or omission of any bidder to examine any form, instrument, or document shall in no way relieve any bidder from any obligation in respect to his bid.

14. Sales and Compensating Use Tax Exemption for Materials Sold to Owner:

Saratoga County is exempt from payment of sales and compensating use taxes of the State of New York and of cities and counties on all supplies and materials sold to the County pursuant to this contract.

15. Proof of Title to Materials Sold to Owner:

The contractor, or subcontractor, at the request of Saratoga County, shall furnish to the County such bills of sale and other instruments as may be required by it, properly executed, acknowledged, and delivered, assuring to it title to such supplies and materials free of encumbrances. The contractor, or subcontractor, shall mark or otherwise identify all such supplies and materials as the property of the Owner. All subcontractor agreements shall provide for resale of such supplies and materials prior to

INFORMATION TO BIDDERS

and separated and apart from the incorporation of such supplies and materials into the permanent construction.

16. Required Certificates:

The contractor and his subcontractors and material men are required to obtain all necessary exemption certificates from Saratoga County and to furnish a resale certificate to all persons, firms, or corporations from which they purchased the supplies and materials in performance of the work under the contract.

17. Non-Collusive Bidding Certificate

All contractors bidding under the provisions of the specifications are subject to the provisions of section 103 of the General Municipal Law of New York. A signed non-collusive certification is required to be submitted with each bid in the form specified with the bid documents.

18. Bid Cannot be Based Upon Assumptions:

The contractor further agrees that its bid proposal is not based upon the assumption that any specifications, traffic restrictions, scheduling or phasing/staging requirements will be waived; that an extension of Contract Completion Date will be granted; a labor dispensation will be granted; that a substitution of non-approved products, alternative or claimed functional equivalents for Specified Construction Materials and Methods will be allowed; or that any Value Engineering Proposals will be approved.

19. Buy American:

The Contractor agrees to comply with 49 USC § 50101, which provides that Federal funds may not be obligated unless all steel and manufactured goods used in AIP funded projects are produced in the United States, unless the Federal Aviation Administration has issued a waiver for the product; the product is listed as an Excepted Article, Material Or Supply in Federal Acquisition Regulation subpart 25.108; or is included in the FAA Nationwide Buy American Waivers Issued list.

A bidder or offeror must complete and submit the Buy America certification included herein with their bid or offer. The Owner will reject as nonresponsive any bid or offer that does not include a completed Certificate of Buy American Compliance.

20. Civil Rights:

The Contractor agrees to comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision binds the Contractor and subcontractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

21. Disadvantaged Business Enterprise:

The Owner's award of this contract is conditioned upon Bidder or Offeror satisfying the good faith effort requirements of 49 CFR §26.53. The **DBE Goal for this contract is 2%** of the Total Contract amount.

The successful Bidder or Offeror must provide written confirmation of participation from each of the DBE firms the Bidder or Offeror lists in its commitment within five days after bid opening.

The names and addresses of Disadvantaged Business Enterprise (DBE) firms that will participate in the contract;

- A description of the work that each DBE firm will perform;
- The dollar amount of the participation of each DBE firm listed under (1)

INFORMATION TO BIDDERS

- Written statement from Bidder or Offeror that attests their commitment to use the DBE firm(s) listed under (1) to meet the Owner's project goal; and
- If Bidder or Offeror cannot meet the advertised project DBE goal, evidence of good faith efforts undertaken by the Bidder or Offeror as described in appendix A to 49 CFR part 26.

22. Federal Minimum Wage:

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part-time workers.

The Contractor has full responsibility to monitor compliance to the referenced statute or regulation. The Contractor must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

22. State Minimum Wage:

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of New York State Minimum Wage Rates.

FORM OF BID

SPECIFICATION COUNTY BID #20-PWOAHM-7

OFF-AIRPORT HABITAT MITIGATION

Date: _____

Bid of _____ (hereinafter called "Bidder")
organized and existing under the laws of the State of _____
doing business as _____

To the County of Saratoga, Ballston Spa, New York (hereinafter called "Owner").

Gentlemen:

The Bidder, in compliance with your invitation for bids for **OFF-AIRPORT HABITAT MITIGATION**, and having examined specifications with related documents and the site of the proposed project, hereby proposes to furnish all labor, materials, and supplies, and to complete the project in a timely manner in accordance with the Contract Documents; and at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the Contract Documents, of which this bid is a part.

Bidder agrees to perform all work described in these specifications as stated in the following. The bidder agrees to furnish all labor, equipment, and material necessary for **OFF-AIRPORT HABITAT MITIGATION** based on these specifications **COUNTY BID #20-PWOAHM-7** and a review of the site.

BIDDER'S NAME: _____

<u>Addenda Acknowledgement:</u>	<u>Addendum No.</u>	<u>Date Received</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

**FORM OF BID
OFF-AIRPORT HABITAT MITIGATION**

BASE BID\$ _____

TOTAL WRITTEN AMOUNT: _____

ADD ALTERNATE #1\$ _____

TOTAL WRITTEN AMOUNT: _____

The bidder understands that the Owner reserves the right to reject any or all bids and to waive any informalities.

The bidder agrees that his bid shall be valid and may not be withdrawn for a period of 45 days after scheduled closing time for receiving bids.

The bid security attached in the sum of \$ _____ (in figures)
_____ (in words)

is to become the property of the Owner in the event that contract and bond are not executed within the time set forth, as liquidated damages for the delay and additional expense to the County caused thereby.

Respectfully submitted: SIGNATURE _____

NAME & TITLE _____

(Seal if bid is by a corporation)

COMPANY _____

ADDRESS _____

TELEPHONE _____

DATE _____

FAX _____

Base Bid

Item No.	Unit Quantity and Description and Unit Bid Prices		Price in Figures	
			Unit Price	Total Amount
M-110-5.1	1	ENGINEER'S FIELD OFFICE LS	\$ _____	\$ _____
		_____ LS		
M-120-3.1	1	MAINTENANCE AND PROTECTION OF TRAFFIC LS		
		_____ LS		
M-150-5.1	1	PROJECT SURVEY AND STAKEOUT LS		
		_____ LS		
C-102-5.1	130,700	TEMPORARY SEEDING AND MULCHING SY		
		_____ SY		

Base Bid

Item No.	Unit Quantity and Description and Unit Bid Prices		Price in Figures	
			Unit Price	Total Amount
C-102-5.2	1	CONSTRUCTION ENTRANCE EA	\$ _____	\$ _____

		EA		
C-102-5.3	700	INSTALLATION AND REMOVAL OF SILT FENCE LF	\$ _____	\$ _____

		LF		
C-105-6.1	1	MOBILIZATION (5% MAX.) LS	\$ _____	\$ _____

		LS		
P-151-4.1	30	CLEARING AND GRUBBING AC	\$ _____	\$ _____

		AC		

Base Bid

Item No.	Unit Quantity and Description and Unit Bid Prices		Price in Figures	
			Unit Price	Total Amount
P-152-4.1	43,600	UNCLASSIFIED EXCAVATION CY	\$ _____	\$ _____
		_____ CY		
S-600-5.1	1	RESTORATION PLANTING LS	\$ _____	\$ _____
		_____ LS		
		Total Price in Words	Total Price in Figures	
Base Bid		_____	\$ _____	\$ _____

Add Alt

Item No.	Unit Quantity and Description and Unit Bid Prices		Price in Figures	
			Unit Price	Total Amount
M-110-5.1	1	ENGINEER'S FIELD OFFICE LS	\$ _____	\$ _____
		_____ LS		
M-120-3.1	1	MAINTENANCE AND PROTECTION OF TRAFFIC LS		
		_____ LS		
M-150-5.1	1	PROJECT SURVEY AND STAKEOUT LS		
		_____ LS		
C-102-5.1	398,600	TEMPORARY SEEDING AND MULCHING SY		
		_____ SY		

Add Alt

Item No.	Unit Quantity and Description and Unit Bid Prices		Price in Figures	
			Unit Price	Total Amount
C-102-5.2	2	CONSTRUCTION ENTRANCE EA	\$ _____	\$ _____

		EA		
C-102-5.3	3,900	INSTALLATION AND REMOVAL OF SILT FENCE LF	\$ _____	\$ _____

		LF		
C-105-6.1	1	MOBILIZATION (5% MAX.) LS	\$ _____	\$ _____

		LS		
P-151-4.1	90	CLEARING AND GRUBBING AC	\$ _____	\$ _____

		AC		

Add Alt

Item No.	Unit Quantity and Description and Unit Bid Prices		Price in Figures	
			Unit Price	Total Amount
P-152-4.1	132,900	UNCLASSIFIED EXCAVATION CY	\$ _____	\$ _____

		_____ CY		
S-600-5.1	1	RESTORATION PLANTING LS	\$ _____	\$ _____

		_____ LS		
		Total Price in Words	Total Price in Figures	
Add Alt		_____	\$ _____	\$ _____

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, _____
_____ as Principal,
_____ and as Surety, are hereby held
and firmly bound unto the County of Saratoga as owner in the penal sum of _____ for
the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors,
administrators, successors and assigns. Signed, this _____ day of _____ 20_____.
The condition of the above is such that whereas the Principal has submitted to the _____
a Certain Bid, attached hereto and hereby made a part hereof to enter in a contract in writing, to

Off-Airport Habitat Mitigation

NOW, THEREFORE,

(a) If said Bid shall be rejected, or in the alternate,

(b) If said Bid shall be accepted and the Principal shall execute and deliver a contract in the form of contract attached hereto (properly completed in accordance with said Bid) and shall furnish a bond for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created of said Bid, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulated agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by an extension of the time within which the Owner may accept said Bid; and said Surety does hereby waive notice of any such extensions.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set for above.

_____(L. S) _____
Principal Surety

By: _____ By: _____

IMPORTANT - Surety companies executing bonds must be authorized to transact business in the State of New York.

NON-COLLUSIVE BIDDING CERTIFICATION

Section 103-d of the General Municipal Law

(a) By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and, in the case of a joint bid, each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:

(1) The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;

(2) Unless otherwise required by Law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor, and

(3) No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.”

I hereby affirm under the penalties of perjury that the foregoing statements are true.

Dated: _____, 20__.

Signature Title

STATE OF)
) ss:
COUNTY OF)

Subscribed to and sworn before me this ____ day of _____, 20 __

by _____ (name of signer).

Notary Public

CERTIFICATION OF COMPLIANCE WITH IRAN DIVESTMENT ACT

Pursuant to General Municipal Law §103-g, which generally prohibits the County of Saratoga from entering into contracts with persons engaged in investment activities in the energy sector of Iran, the bidder/proposer submits the following certification:

[Please Check One]

BIDDER’S CERTIFICATION

- By submission of this bid or proposal, each bidder/proposer and each person signing on behalf of any bidder/proposer certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief, that each bidder/proposer is not on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law.
- I am unable to certify that my name and the name of the bidder/proposer does not appear on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law. I have attached a signed statement setting forth in detail why I cannot so certify.

Dated: _____, 20__.

STATE OF)
) ss.:
 COUNTY OF)

The undersigned, being duly sworn, says (a) I am duly authorized to execute this Certification and (b) I hereby certify, under penalty of perjury, that the forgoing Certification is in all respects true and accurate.

Signature

Printed Name

Title

Subscribed and sworn to before me this ____
day of _____, 20__.

Notary Public

**CERTIFICATION OF COMPLIANCE FOR THE
PREVENTION OF SEXUAL HARASSMENT**

Pursuant to State Finance Law §139-1 of the State of New York, effective January 1, 2019, where competitive bidding is required for certain public contracts, every bid must contain the following statement affirming that the bidder has implemented a written policy addressing sexual harassment prevention and that the bidder provides annual sexual harassment prevention training, which statement must be signed by the bidder and affirmed by such bidder under the penalty of perjury:

[Please Check One]

BIDDER'S CERTIFICATION

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that the bidder has and has implemented a written policy addressing sexual harassment prevention in the workplace and provides annual sexual harassment prevention training to all of its employees. Such policy shall, at a minimum, meet the requirements of section two hundred one-g of the labor law.

I am unable to certify that I, or my employer, have implemented a written policy addressing sexual harassment prevention in the workplace. The reason(s) why neither I nor my employer can make such certification is/are: _____
_____.

Dated: _____, 20__.

STATE OF _____)
COUNTY OF _____) ss:

The undersigned, being duly sworn, says: (a) I am duly authorized to execute this Certification and (b) I hereby certify, under penalty of perjury, that the forgoing Certification is in all respects true and accurate.

Signature

Printed Name

Title

Subscribed and sworn to before me this _____
day of _____, 20__.

Notary Public

FEDERAL AVIATION ADMINISTRATION PROPOSED DISADVANTAGED BUSINESS ENTERPRISE (DBE) AND SMALL BUSINESS UTILIZATION CERTIFICATION

The DBE Goal for this project is 2% of the total contract amount. The undersigned Bidder/Offeror has made a good faith effort to make subcontracting and supplier opportunities available to all firms including, but not limited to, DBE's and small businesses as defined in 49 CFR 26. As a result of these efforts:

- The Bidder/Offeror is committed to a minimum of _____% **DBE** utilization on this Contract.
- The Bidder/Offeror is committed to a minimum of _____% **Small Business** utilization on this Contract (Include Small Businesses that are also DBE's in this percentage as well as Small Businesses that are not DBE's).

Name of Bidder/Offeror's firm: _____

AIP No.: _____

By: _____
Signature Title

DBE / Small Business Subcontractor / Supplier

Name of Firm: _____

DBE Small Business (Check One or Both)

Proposed Work: _____
(Be brief, i.e. electrical or excavation)

Dollar Amount of Work: _____

Letter of Intent attached Firm is a Supplier.

(Attach additional sheets as needed for additional firms)

FEDERAL AVIATION ADMINISTRATION PROPOSED DISADVANTAGED BUSINESS ENTERPRISE (DBE) AND SMALL BUSINESS UTILIZATION CERTIFICATION

DBE / Small Business Subcontractor / Supplier

Name of Firm: _____

DBE Small Business (Check One)

Proposed Work: _____
(Be brief, i.e. electrical or excavation)

Dollar Amount of Work: _____

Letter of Intent attached Firm is a Supplier.

DBE / Small Business Subcontractor / Supplier

Name of Firm: _____

DBE Small Business (Check One)

Proposed Work: _____
(Be brief, i.e. electrical or excavation)

Dollar Amount of Work: _____

Letter of Intent attached Firm is a Supplier.

DBE / Small Business Subcontractor / Supplier

Name of Firm: _____

DBE Small Business (Check One)

Proposed Work: _____
(Be brief, i.e. electrical or excavation)

Dollar Amount of Work: _____

Letter of Intent attached Firm is a Supplier.

(Attach additional sheets as needed for additional firms)

SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) CERTIFICATION

PROJECT:

LOCATION:

- I. I hereby certify that I have reviewed the safety plans and fully understand the requirements set forth in the Construction Safety Phasing Plan (CSPP) as contained within the Contract Documents.
- II. I agree that prior to the issuance of the Notice to Proceed (NTP), I will provide as part of the Safety Plan Compliance Document (SPCD), a detailed plan as to how the CSPP will be complied with. The detail plan will included but not be limited to: specific equipment that will be utilized on site; construction equipment heights; contractor's points of contacts; work area plan (including a work sequencing plan); verification of material stock pile areas and heights; understanding of haul route restrictions; safety procedures; and other information as needed.
- III. I agree that I will follow the CSPP and approved SPCD and will not deviate from the plan without prior authorization from the Owner. I further acknowledge that requested revisions to the CSPP may require approval from the Federal Aviation Administration (FAA) and the review process requires at least 45 to 60 days. I further agree to reimburse the Owner for any and all costs resulting from a requested change or revision to the CSPP.
- IV. Check box if SPCD document is attached.

Date: _____

Signature of Authorized
Representative of Contractor

Printed Name of Authorized Rep.

Corporate Seal

Signature of Witness

**CONTRACTOR'S/SUBCONTRACTOR'S
STORMWATER POLLUTION PREVENTION PLAN CERTIFICATION**

"I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharges* from *construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

Name of Prime Contractor: _____

Printed Name Title/Position

Signature Date

Firm Name: _____

Federal I.D. No. _____

Mailing Address: _____

Telephone No.: _____

TRADE RESTRICTION CERTIFICATION

The contractor or subcontractor, by submission of an offer and/or execution of a contract, certifies that it:

- a. is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms published by the Office of the United States Trade Representative (USTR);
- b. has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country on said list, or is owned or controlled directly or indirectly by one or more citizens or nationals of a foreign country on said list;
- c. has not procured any product nor subcontracted for the supply of any product for use on the project that is produced in a foreign country on said list.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to a contractor or subcontractor who is unable to certify to the above. If the contractor knowingly procures or subcontracts for the supply of any product or service of a foreign country on said list for use on the project, the Federal Aviation Administration may direct through the Sponsor cancellation of the contract at no cost to the Government.

Further, the contractor agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in each contract and in all lower tier subcontracts. The contractor may rely on the certification of a prospective subcontractor unless it has knowledge that the certification is erroneous.

The contractor shall provide immediate written notice to the sponsor if the contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The subcontractor agrees to provide written notice to the contractor if at any time it learns that its certification was erroneous by reason of changed circumstances.

This certification is a material representation of fact upon which reliance was placed when making the award. If it is later determined that the contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration may direct through the Sponsor cancellation of the contract or subcontract for default at no cost to the Government.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

Date	Signature
Company Name	Title

BUY AMERICAN COMPLIANCE CERTIFICATION

(NON-BUILDING CONSTRUCTION PROJECTS, EQUIPMENT ACQUISITION PROJECTS)

As a matter of bid responsiveness, the bidder or offeror must complete, sign, date, and submit this certification statement with their proposal. The bidder or offeror must indicate how they intend to comply with 49 USC § 50101 by selecting one on the following certification statements. These statements are mutually exclusive. Bidder must select one or the other (not both) by inserting a checkmark (✓) or the letter “X”.

- Bidder or offeror hereby certifies that it will comply with 49 USC § 50101 by:
- a) Only installing steel and manufactured products produced in the United States, or;
 - b) Installing manufactured products for which the FAA has issued a waiver as indicated by inclusion on the current FAA Nationwide Buy American Waivers Issued listing, or;
 - c) Installing products listed as an Excepted Article, Material or Supply in Federal Acquisition Regulation Subpart 25.108.

By selecting this certification statement, the bidder or offeror agrees:

1. To provide to the Owner evidence that documents the source and origin of the steel and manufactured product.
2. To faithfully comply with providing US domestic product
3. To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

- The bidder or offeror hereby certifies it cannot comply with the 100% Buy American Preferences of 49 USC § 50101(a) but may qualify for either a Type 3 or Type 4 waiver under 49 USC § 50101(b). By selecting this certification statement, the apparent bidder or offeror with the apparent low bid agrees:

1. To the submit to the Owner within 15 calendar days of the bid opening, a formal waiver request and required documentation that support the type of waiver being requested.
2. That failure to submit the required documentation within the specified timeframe is cause for a non-responsive determination may result in rejection of the proposal.
3. To faithfully comply with providing US domestic products at or above the approved US domestic content percentage as approved by the FAA.
4. To furnish US domestic product for any waiver request that the FAA rejects
5. To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

BUY AMERICAN COMPLIANCE CERTIFICATION
(NON-BUILDING CONSTRUCTION PROJECTS, EQUIPMENT ACQUISITION PROJECTS)

Required Documentation

Type 3 Waiver - The cost of the item components and subcomponents produced in the United States is more than 60% of the cost of all components and subcomponents of the “item”. The required documentation for a type 3 waiver is:

- a) Listing of all product components and subcomponents that are not comprised of 100% US domestic content (Excludes products listed on the FAA Nationwide Buy American Waivers Issued listing and products excluded by Federal Acquisition Regulation Subpart 25.108; products of unknown origin must be considered as non-domestic products in their entirety)
- b) Cost of non-domestic components and subcomponents, excluding labor costs associated with final assembly at place of manufacture.
- c) Percentage of non-domestic component and subcomponent cost as compared to total “item” component and subcomponent costs, excluding labor costs associated with final assembly at place of manufacture.

Type 4 Waiver – Total cost of project using US domestic source product exceeds the total project cost using non-domestic product by 25%. The required documentation for a type 4 waiver is:

- a) Detailed cost information for total project using US domestic product
- b) Detailed cost information for total project using non-domestic product

False Statements: Per 49 USC § 47126, this certification concerns a matter within the jurisdiction of the Federal Aviation Administration and the making of a false, fictitious or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code.

Date

Signature

Company Name

Title

DEBARMENT AND SUSPENSION (BIDDER OR OFFEROR) CERTIFICATION

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that at the time the bidder or offeror submits its proposal that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

CERTIFICATION REGARDING DEBARMENT AND SUSPENSION (SUCCESSFUL BIDDER REGARDING LOWER TIER PARTICIPANTS)

The successful bidder, by administering each lower tier subcontract that exceeds \$25,000 as a “covered transaction”, must verify each lower tier participant of a “covered transaction” under the project is not presently debarred or otherwise disqualified from participation in this federally assisted project. The successful bidder will accomplish this by:

1. Checking the System for Award Management at website: <http://www.sam.gov>
2. Collecting a certification statement similar to the Certificate Regarding Debarment and Suspension (Bidder or Offeror), above.
3. Inserting a clause or condition in the covered transaction with the lower tier contract

If the FAA later determines that a lower tier participant failed to tell a higher tier that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedy, including suspension and debarment.

Name and Title (Please Print or Type)

Signature

Date

EQUAL EMPLOYMENT OPPORTUNITY REPORT STATEMENT CERTIFICATION

as required by 41 CFR 60-1.7(b)

(see “Required Federal Contract Provisions for AIP and Obligated Sponsors”)

The Bidder (Proposer) shall complete the following statement by checking the appropriate boxes. Failure to complete these blanks may be grounds for rejection of the bid Proposal.

1. The Bidder (Proposer) has has not developed and has on file at each establishment Affirmative Action Programs pursuant to 41 CFR 60-1.4 and 41 CFR 60-2.
2. The Bidder (Proposer) has has not participated in any previous Contract or Subcontract subject to the Equal Opportunity Clause prescribed by Executive Order 11246, as amended.
3. The Bidder (Proposer) has has not filed with the Joint Reporting Committee the Annual Compliance Report on Standard Form 100 (EEO-1 Report).
4. The Bidder (Proposer) does does not employ fifty (50) or more employees.

(Name of Bidder)

By: _____
Signature *

Title: _____

Date: _____

*Must be same signature on bid Proposal.

NON-SEGREGATED FACILITIES CERTIFICATION

41 CFR PART 60-1.8

Notice to Prospective Federally Assisted Construction Contractors

1. A Certification of Non-segregated Facilities shall be submitted prior to the award of a federally assisted construction contract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity Clause.

2. Contractors receiving federally-assisted construction contract awards exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause will be required to provide for the forwarding of the following notice to prospective subcontractors for supplies and construction contracts where the subcontracts exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity Clause.

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

Notice to Prospective Subcontractors of Requirements for Certification of Non-Segregated Facilities

1. A Certification of Non-segregated Facilities shall be submitted prior to the award of a subcontract exceeding \$10,000, which is not exempt from the provisions of the Equal Opportunity Clause.

2. Contractors receiving subcontract awards exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause will be required to provide for the forwarding of this notice to prospective subcontractors for supplies and construction contracts where the subcontracts exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity Clause.

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

CERTIFICATION OF NON-SEGREGATED FACILITIES:

The undersigned federally-assisted construction contractor certifies that she or he does not maintain or provide, for his employees, any segregated facilities at any of his establishments and that she or he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally-assisted construction contractor certifies that she or he will not maintain or provide, for his employees, segregated facilities at any of his establishments and that she or he will not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The federally-assisted construction contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract.

As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms, and washrooms, restaurants and other eating areas, timeclocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directives or are, in fact, segregated on the basis of race, color, religion, or national origin because of habit, local custom, or any other reason. The federally-assisted construction contractor agrees that (except where

NON-SEGREGATED FACILITIES CERTIFICATION

she or he has obtained identical certifications from proposed subcontractors for specific time periods) she or he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause and that she or he will retain such certifications in his files.

Signed and submitted on this date: _____

By this (circle one): Contractor, Subcontractor, or Supplier

Business Name: _____

Address: _____

Telephone Number: _____

Fax Number: _____

E-mail Address: _____

Name and Title (Printed): _____

Owner or Authorized Signature: _____

Note to Subcontractors and Suppliers: This form shall be returned to the Prime Contractor who will forward it to the Engineer.

US GOVERNMENT AND STATE TAXES PAID CERTIFICATION

The following certification statement is to be signed by the Bidder.

I hereby certify that I am a _____ (title of Officer of the company) and duly authorized representative of _____ (name of company), whose address is _____ and that neither I nor the above company I here represent has:

- a. Employed or retained for a commission, percentage, brokerage, contingent fee, or other consideration, any company or person (other than bona fide employee working solely for me or the above company) to solicit or secure this Contract,
- b. Agreed, as an express or implied condition for obtaining this Contract to employ or retain the services of any company or person in connection with carrying out the Contract, or
- c. Paid, or agreed to pay, to any company, organization or person (other than a bona fide employee working solely for me or the above company) any fee, contribution, donation, or consideration of any kind for, or in connection with, procuring or carrying out the Contract;

I acknowledge that this certification is to be furnished to the FAA or other branches of the US Government, and the State in which this project is located in connection with this Contract involving participation of funds, and subject to applicable State and Federal laws, both criminal and civil.

I certify under the penalty of perjury that the firm or corporation referenced above, to the best of my knowledge and belief, has filed all US Government and State Tax Returns and paid all Federal and State taxes required under law.

FEDERAL I.D. NO. _____

BIDDER'S NAME: _____

BY: _____

TITLE: _____

DATED: _____

CONTRACTOR REFERENCE SHEET

All bidders must complete this form providing three (3) references of past performance. References should involve projects and or service situations of similar size and scope to this bid. References must have had dealings with the bidder within the last 36 months. The County reserves the right to contact any or all of the references supplied for an evaluation of past performance in order to establish the responsibility of the bidder before the actual award of this bid and/or contract.

BIDDER'S NAME: _____

REFERENCE NAME: _____

ADDRESS: _____

TELEPHONE: _____

CONTACT PERSON: _____

REFERENCE NAME: _____

ADDRESS: _____

TELEPHONE: _____

CONTACT PERSON: _____

REFERENCE NAME: _____

ADDRESS: _____

TELEPHONE: _____

CONTACT PERSON: _____

CONTRACTOR QUALIFICATION STATEMENT

The undersigned certifies under oath that the information provided herein is true and sufficiently complete so as not to be misleading.

SUBMITTED TO: _____

ADDRESS: _____

SUBMITTED BY: _____

NAME: _____

ADDRESS: _____

PRINCIPAL OFFICE: _____

Corporation

Partnership

Individual

Joint Venture

Other

NAME OF PROJECT (if applicable): _____

TYPE OF WORK (file separate form for each Classification of Work):

_____ General Construction

_____ HVAC

_____ Plumbing

_____ Electrical

_____ Other _____
(please specify)

1. ORGANIZATION:

1.1 How many years has your organization been in business as a contractor?

1.2 How many years has your organization been in business under its present business name?

1.2.1 Under what other or former names has your organization operated?

CONTRACTOR QUALIFICATION STATEMENT

1.3 If your organization is a corporation, answer the following:

1.3.1 Date of Incorporation:

1.3.2 State of Incorporation:

1.3.3 President’s Name:

1.3.4 Vice-President’s Name(s):

1.3.5 Secretary’s Name:

1.3.6 Treasurer’s Name:

1.4 If your organization is a partnership, answer the following:

1.4.1 Date of Organization:

1.4.2 Type of Partnership (if applicable):

1.4.3 Name(s) of General Partner(s):

1.5 If your organization is individually owned, answer the following:

1.5.1 Date of Organization:

1.5.2 Name of Owner:

1.6 If the form of your organization is other than those listed above, describe it and name the principals:

2. LICENSING:

2.1 List jurisdictions and trade categories in which your organization is legally qualified to do business, and indicate registration or license numbers, if applicable.

2.2 List jurisdictions in which your organization’s partnership or trade name is filed.

CONTRACTOR QUALIFICATION STATEMENT

3. EXPERIENCE:

- 3.1 List the categories of work that your organization normally performs with its own forces.

- 3.2 Claims and Suits - (if the answer to any of the questions below is yes, please attach details):
 - 3.2.1 Has your organization ever failed to complete any work awarded to it?
 - 3.2.2 Are there any judgements, claims, arbitration proceedings, or suits pending or outstanding against your organization or its officers?
 - 3.2.3 Has your organization filed any lawsuits or requested arbitration with regard to construction contracts within the last five (5) years?

- 3.3 Within the last five (5) years has any officer or principal of your organization ever been an officer or principal of another organization when it failed to complete a construction contract? (if answer is yes, please attach details)

- 3.4 On a separate sheet, list major construction projects your organization has in progress giving the name of the project, owner, architect, contract amount, percent complete, and scheduled completion date.
 - 3.4.1 State total worth of work in progress and under contract.

- 3.5 On a separate sheet, list the major projects your organization has completed in the last five (5) years, giving the name of project, owner, architect, contract amount, date of completion, and percentage of the cost of the work performed with your own forces.
 - 3.5.1 State average annual amount of construction work performed during the past five (5) years:

- 3.6 On a separate sheet, list the construction experience and present commitments of the key individuals of your organization.

4. REFERENCES:

- 4.1 Trade References:

CONTRACTOR QUALIFICATION STATEMENT

4.2 Bank References:

4.3 Surety:

4.3.1 Name of bonding company:

4.3.2 Name and address of agent:

5. FINANCING:

5.1 Financial Statement:

5.1.1 Attach a financial statement, preferably audited, including your organization's latest balance sheet and income statement showing the following items:

Current Assets (e.g., cash, joint venture accounts, accounts receivable, notes receivable, accrued income, deposits, materials inventory, and prepaid expenses);

Net Fixed Assets;

Other Assets;

Current Liabilities (e.g., accounts payable, notes payable, accrued expenses, provision for income taxes, advances, accrued salaries, and accrued payroll taxes);

Other Liabilities (e.g., capital, capital stock, authorized and outstanding shares par values, earned surplus and retained earnings).

5.1.2 Name and address of firm preparing attached financial statement, and date thereof:

5.1.3 Is the attached financial statement for the identical organization named on page one?

If not, explain the relationship and financial responsibility of the organization whose financial statement is provided (e.g., partner-subsiary).

5.2 Will the organization whose financial statement is attached act as guarantor of the contract for construction?

CONTRACTOR QUALIFICATION STATEMENT

6. SIGNATURE:

6.1 Dated _____ this _____ day of _____

Name of Organization: _____

By: _____

Title: _____

6.2 I _____ being duly sworn deposes and says that the information provided herein is true and sufficiently complete so as not to be misleading.

Subscribed and sworn before me this _____ day of _____

Notary Public: _____

My Commission Expires: _____

VENDOR INFORMATION
FOR THE COUNTY OF SARATOGA

Please complete the following information which is necessary in order for Saratoga County to track vendor applicant information and the County's purchasing process.

Business Name _____

Address _____

Business Type (Sole Proprietorship, Corporation, LLC, etc.) _____

Is your business a Disadvantaged Business Enterprise (DBE)? **Yes** **No**

Is your business a Minority and Women-Owned Business Enterprise (MWBE)? **Yes** **No**

Does your business have a small business status? **Yes** **No**

Any other business status, please provide information: _____

Provide the name of the Certifying Entity (ties): _____

Have you conducted business with the County before? **Yes** **No**

If the answer to the above question is NO, please provide your Federal ID Number and attach a copy of your W-9

Form. FEIN # : _____

How did you discover this Bid opportunity? _____

Do you use the Empire State Municipal Purchasing Group Website (BidNet)? **Yes** **No**

If Yes, do you find it useful (explain) or if No, why? _____

Completing the above information does not change your chances of being awarded a contract. The information collected will NOT be sold and will not be used to contact you.

Thank you.

CORPORATE BID RESOLUTION

For Corporate Bidders Only

RESOLVED, that _____ be authorized to sign and submit
(individual)

the bid or proposal of this corporation for the following project(s):

Off-Airport Habitat Mitigation

and to include in such bid or proposal, the certificate as to non-collusion required by section 103-d of the General Municipal Law as the act and deed of such Corporation, and for any inaccuracies or misstatements in such certificates this corporate bidder shall be liable under the penalties of perjury.

The foregoing is a true and correct copy of the resolution adopted by _____
(corporation)

at a meeting of its Board of Directors held on the _____ day of _____, _____

and is still in full force and effect on this _____ day of _____, _____.

SEAL OF CORPORATION

Secretary

OWNER/CONTRACTOR AGREEMENT

THIS AGREEMENT, made this _____, day of _____, 20__ by and between

the County of Saratoga, hereinafter called "Owner" and _____

doing business as a corporation located in **CITY/TOWN, COUNTY** County in the State of STATE hereinafter called "Contractor".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the Owner, the Contractor hereby agrees with the Owner to commence and complete the project described as follows:

Off-Airport Habitat Mitigation

Hereinafter called the "project", for the sum of \$_____ under the terms as stated in the General and Special Conditions of the contract; and materials, supplies, machinery, equipment, tools, superintendence, labor, insurance and other accessories and services necessary to complete the said project in accordance with the conditions and prices stated in the Proposal, Information for Bidders, the General Conditions, Special Specifications of the contract, the Plans, which include all maps, plats, blue prints and other drawings and printed or written explanatory matter thereof, the specifications and contract documents therefore as prepared by Owner.

The Contractor hereby agrees to commence work under this contract on or before a date to be specified in written "Notice to Proceed" of the Owner and to fully complete the project in a Timely manner.

In case this contract is modified and changed by the Owner, so as to make the work less expensive to the Contractor, a proper deduction shall be made from the contract price, which deduction shall be determined by the Owner provided, however, that in the event of such changes the Contractor shall have no claim on this account for loss of anticipated profits on the work involved.

At completion of all work whatsoever required to be done, provided or performed by the Contract, Owner will inspect the work, and if he finds the work acceptable hereunder and the Contract fully performed, he shall issue and file with the Owner and with the Contractor a Certificate of Completion. Such certificate shall state that the work provided for in this contract has been completed and is accepted by him and set forth the entire balance which is due and payable to the Contractor. Before issuance of such Certificate, the Contractor shall submit proof to the Owner that all payrolls, material bills and other indebtedness connected with the work have been paid.

OWNER/CONTRACTOR AGREEMENT

The acceptance by the Contractor of the Final Payment shall be, and shall function as, a general release to the Owner of all claims and of all liability whatsoever arising from or in anywise connected with the work. No payment, however, final or otherwise, shall function to release the Contractor or his sureties from any continuing obligations under this Contract or under the Bonds required hereunder.

IN WITNESSETH WHEREOF, the parties to these presents have executed this contract in six (6) counterparts, each of which shall be deemed an original, in the year and day first mentioned above.

Date: _____

(Saratoga County, Owner)

_____, Chairman
Saratoga County Board of Supervisors

Pursuant to Resolution # _____

AND

Contractor Name and Address:

Federal Tax I.D. # _____

Date: _____

By: _____
(signature)

(printed – name & title)

APPROVED BY:

Stephen M. Dorsey, County Attorney

INDEMNITY AND INSURANCE AGREEMENT

IT IS HEREBY AGREED by _____, the CONTRACTOR, as follows:

INSURANCE
CONTRACTOR’S LIABILITY INSURANCE

The Contractor shall purchase and maintain such insurance as will protect him from all claims as set forth below, which may arise out of or result from the Contractor’s operations under the Contract, whether such operations be by himself or any subcontractor or by anyone directly or indirectly employed by any of them or by anyone for whose acts any of them may be liable:

1. claims under workmen’s compensation, disability benefit and other similar employee benefit acts;
2. claims for damages because of bodily injury, occupational sickness or disease, or death of his employees;
3. claims for damages because of bodily injury, sickness or disease, or death of any person other than his employees;
4. claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as a result of an offense directly or indirectly related to the employment of such person by the Contractor, or (2) by any other person; and
5. claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom.

Certificates of Insurance acceptable to the County shall be filed with the County prior to commencement of the work. Saratoga County must be named and included as an additional insured under the Contractor’s general liability insurance. Proof that the County has been named as an additional insured on the Contractor’s general liability insurance must be provided in the form of an additional insured rider to said policy, or by other proof acceptable to the Saratoga County Attorney

The Contractor’s Comprehensive General Liability Insurance and Automobile Insurance shall be in an amount not less than One Million Dollars (\$1,000,000) for injuries, including accidental death, to any one person and subject to the same limit for each person, and in an amount not less than One Million Dollars (\$1,000,000) on account of one occurrence. The Contractor’s Property Damage Liability Insurance shall be in an amount not less than One Million Dollars (\$1,000,000). The Contractor shall require his subcontractors to procure and to maintain during the life of his subcontract, Subcontractors’ Comprehensive General Liability, Automobile Liability, and Property Damage Liability Insurance of the type and in the same amounts as specified hereinabove. The Contractor’s and his subcontractors’ Liability Insurance shall include adequate protection against the following special hazards:

Bodily Injury and Property Damage – completed job operation and/or products liability at before mentioned limits with \$1,000,000 for bodily injury and \$1,000,000 aggregate for operations, protection, contractual and products and/or completed job operations. Property Damage shall be on the broad form and shall include coverage for explosion, collapse and underground damages.

The above insurance is not, and shall not be construed as, a limitation upon CONTRACTOR’s obligation to indemnify the COUNTY.

Attorney’s Approval

All documents submitted shall be subject to the approval of the Saratoga County Attorney as to form and content.

HOLD HARMLESS

The CONTRACTOR shall, at all times, indemnify and save harmless the COUNTY from and against any and all claims and demands whatsoever, including costs, litigation expenses, counsel fees and liabilities in connection therewith arising out of injury to or death of any person whomsoever or damage to any property of any kind by whomsoever, caused in whole or in part, directly or indirectly, by the acts or omissions of the CONTRACTOR, any person employed by the CONTRACTOR, its Contractors, subcontractors, materialmen, or any person directly or indirectly employed by them or any of them, while engaged in the work hereunder. This clause shall not be construed to limit, or otherwise impair, other rights or obligations of indemnity which exist in law, or in equity, for the benefit of the COUNTY.

IN WITNESS WHEREOF, the CONTRACTOR have set its hand this _____ day of _____, _____.

SIGNATURE _____

NAME & TITLE _____

ACKNOWLEDGMENT OF CONTRACTOR, IF CORPORATION

STATE OF NEW YORK
COUNTY OF _____ ss:

On this _____ day of _____, 20_____, before me personally came and appeared _____ to me known, who being by me duly sworn, did depose and say that (s)he resides at _____, that (s)he is the _____; of _____ the corporation described in (Corporate title) (Legal Company Name)

and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that (s)he signed (his/her) name thereto by like order.

Notary Public _____

ACKNOWLEDGMENT OF CONTRACTOR, IF A PARTNERSHIP

STATE OF NEW YORK
COUNTY OF _____ ss:

On this _____ day of _____, 20_____, before me personally came and appeared _____ to me known, and known to me to be one of the members of the firm of _____, described in and who executed the foregoing instrument and (s)he acknowledged to me that (s)he executed the same as and for the act and deed of said firm.

Notary Public _____

ACKNOWLEDGMENT OF CONTRACTOR, IF AN INDIVIDUAL

STATE OF NEW YORK
COUNTY OF _____ ss:

On this _____ day of _____, 20_____, before me personally came and appeared _____ to me known, and known to me to be the person described in described in and who executed the foregoing instrument and acknowledge that (s)he executed the same.

Notary Public _____

ACKNOWLEDGEMENT OF OFFICER OF SARATOGA COUNTY EXECUTING CONTRACT

STATE OF NEW YORK

COUNTY OF SARATOGA

On this _____ day of _____, 20_____, before me personally came and appeared _____ to me known, who, being by

me duly sworn, did depose and say that (s)he is the _____, described in and which executed the foregoing instrument that by virtue of the authority conferred on (her/him) by law (s)he subscribed (her/his) name to the foregoing instrument and that (s)he executed the same for the purpose therein mentioned.

Notary Public _____

PERFORMANCE BOND

Know all men by these presents, THAT WE,

hereinafter referred to as the PRINCIPAL, and

hereinafter referred to as the SURETY, are held and firmly bound to the

hereinafter referred to as the OWNER, or to its successors and assigns, in the penal sum of:

_____ (\$ _____), lawful money of the United States, for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the Owner for

A copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full.

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representative or assigns, shall well and faithfully perform the said Contract and all modifications, amendments, additions, and alterations thereto that may hereafter be made, according to its terms and its true intent and meaning, and shall fully indemnify and save harmless the Owner from all cost and damage which it may suffer by reason of failure so to do, and shall fully reimburse and repay the Owner for all outlay and expense which the Owner may incur in making good any such default; and

FURTHER, shall pay or cause to be paid all lawful claims of Subcontractors, Materialmen, and Workingmen, and all lawful claims of third persons arising out of or in connection with or because of the performance of work at the Site, then this obligation shall be void, otherwise the same to remain in full force and effect.

PERFORMANCE BOND

This undertaking is for the benefit of all Subcontractors, Materialmen, and workmen having just claims arising out of or in connection with the said Contract and the work performed thereunder, as well as for the benefit of the owner itself, but the rights and equities all other beneficiaries or obligees here under shall be subject and subordinate to those of the owner. Should any beneficiary or obligee here under, other than the Owner, file or make claims against the Principal or Surety, the said Principal and Surety shall promptly thereafter, or in any event at least 15 days prior to the payment of such claims, notify the Owner by registered mail of such claims.

The Surety, for value received, hereby stipulates and agrees, if requested to do so by the Owner, to fully perform and complete the work to be performed under the Contract, pursuant to the terms, conditions and covenants thereof, if for any cause, the principal fails or neglects to so fully perform and complete such work. The Surety further agrees to commence such work of completion within 20 days from expiration of the time allowed the Principal in the Contract for the completion of such work.

The Surety, for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety and its bond shall be in now way impaired or affected by an extension of time, modification, omission, addition, or change in or to the said Contract or the work to be performed thereunder, or by any payment thereunder before the time required therein, or by a waiver of any provisions thereof, or by an assignment, subletting or other transfer thereof or of any part thereof, or of any work to be performed, or any money due or to become due thereunder; and said Surety does hereby waive notice of any and all of such extension, modifications, omissions, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, subcontractors, and other transferees, shall have the same effect as to said Surety as though done or omitted to be done by or in relation to said Principal.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this _____ day of _____, 20_____.

(Individual, Firm, or Corporation as the case may be)

By: _____
Authorized officer

Surety

By: _____

PAYMENT BOND

Know all men by these presents, THAT WE,

hereinafter referred to as the PRINCIPAL, and

hereinafter referred to as the SURETY, are held and firmly bound to the

hereinafter referred to as the OWNER, or to its successors and assigns, in the penal sum of:

_____ (\$ _____), lawful money of the United States, for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the Owner for

A copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full.

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representative or assigns and other subcontractors to whom work under this Contract is sublet and his or their successors and assigns shall promptly pay or cause to be paid all lawful claims for:

- (a) Wages and compensation for labor performed and services rendered by all persons engaged in the prosecution of the work under said Contract, and any amendment or extension thereof or addition thereto, whether such persons be agents, servants or employees of the Principal or of any such subcontractor, including all persons so engaged who perform the work of laborers or mechanics at or in the vicinity of the site of the project regardless of any contractual relationship between the Principal or subcontractors, or his or their successors or assigns, on the one hand and such laborers or mechanics on the other, but not including office employees not regularly stationed at the site, and

- (b) Materials and supplies (whether incorporated in the permanent structure or not), as well as teams, fuels, oils, implements or machinery furnished, used or consumed by said Principal or any subcontractor at or in the vicinity of the site in the prosecution of the work under said Contract and any amendment or extension thereof or addition thereto; then this obligation shall be void; otherwise to remain in full force and effect.

This bond is subject to the following additional conditions, limitations, and agreements:

- (a) The Principal and Surety agree that this bond shall be for the benefit of any material man or laborer having a just claim, as well as the Owner itself.

(b) All persons who have performed labor, rendered services, or furnished materials and supplies, as aforesaid, having a direct right of action against the Principal and his its or their successors and assigns, and the Surety herein, or against either or both or any of them and their successors and assigns. Such persons may sue in their own name, and may prosecute the suit to judgment and execution without the necessity of joining with any other person as party plaintiff.

(c) The Principal and Surety agree that neither of them will hold the Owner liable for any judgment for costs or otherwise, obtained by either or both of them against a laborer or material man in a suit brought by either a laborer or material man under this bond for money allegedly due for performing work or furnishing material.

(d) The Surety or its successors and assigns shall not be liable for any compensation recoverable by an employee or laborer under the Workmen's' Compensation Law.

(e) In no event shall the Surety, or its successors or assigns, be liable for a greater sum than the penalty of this bond or be subject to any suit, action or proceeding hereon that is instituted by any person, form or corporation here under later than two (2) years after the complete performance of said Contract and final settlement thereof.

The Principal, for himself and his successors and assigns, and the Surety for itself and its successors and assigns, do hereby expressly waive any objection that might be interposed as to the right of the Owner to require a bond containing the foregoing provisions, and they do hereby further expressly waive any defense which they or either of them might interpose to an action brought hereon by any person, form, or corporation, including subcontractors, material men and third persons, for work, labor, services, supplies, or material performed, rendered, or furnished as aforesaid upon the ground that there is no law authorizing the Owner to require the foregoing provisions to be placed in this bond.

And the Surety, for value received for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition, or charge in or of the said Contract or the work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any part thereof, or of any work, to be performed, or any moneys due or to become due thereunder; and extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, subcontractors, and other transferees shall have the same effect as to said Surety as though done or omitted to be done by or in relation to said principal.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this _____ day of _____ 20_____.

SEAL

(Individual, Firm, or Corporation as the case may be)

By: _____
Authorized Officer

SEAL

Surety

By: _____

NEW YORK STATE PREVAILING WAGE RATES

The following Prevailing Wage Rate Case Number has been assigned for the project :

- **PRC# 2020003718**

The New York State Prevailing Wage Rates can be downloaded at the following website:

<http://apps.labor.ny.gov/wpp/publicViewProject.do?method=showIt&id=1496246>



SARATOGA COUNTY DOCUMENT A201
GENERAL CONDITIONS

(For Projects using the Services of an Engineering Consultant)

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Notice – This document may not be modified without the permission of an authorized representative of Saratoga County. All approved modifications that are “project specific” are to be included in a “Supplemental General Conditions” document.

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ARTICLE I – DEFINITIONS

Wherever used in these General Conditions or in the other Contract Documents the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

1. **Addenda** - Written or graphic instruments issued prior to the opening of Bids, which clarify, correct or change the Bidding Requirements or the Contract Documents.
2. **Agreement** - The written contract between **OWNER** and **CONTRACTOR** covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.
3. **Application for Payment** - The form accepted by **ENGINEER** which is to be used by **CONTRACTOR** in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
4. **Asbestos** - Any material that contains more than one percent asbestos.
5. **Bid** -The offer or proposal of the bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
6. **Bidding Documents** -The advertisement or invitation to Bid, the Bid form, and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).
7. **Bidding Requirements** -The advertisement or invitation to Bid and the Bid form.
8. **Bonds** -Performance and Payment bonds and other instruments of security.
9. **Change Order** - A document recommended by **ENGINEER** which is signed by **CONTRACTOR** and **OWNER** and authorizes an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
10. **Contract Documents** - The **OWNER/CONTRACTOR** Agreement, Addenda (which pertain to the Contract Documents). **CONTRACTOR's** Bid (including documentation accompanying the Bid and any post Bid documentation submitted prior to the Notice of Award), Invitation to Bidders, Information to Bidders, Non-Collusive Bidding Certificate, the Notice to Proceed, the Bonds, these General Conditions, the Supplemental General Conditions, the Technical Specifications and the Drawings as the same are more specifically identified in the Agreement, together with all Written Amendments, Change Orders, Work Change Directives, and Field Orders and **ENGINEER's** written interpretations and clarifications issued on or after the Effective Date of the Agreement. Shop Drawings submittals approved pursuant to in **Article VI, paragraphs 18 & 19** and the reports and drawings referred to in **Article IV, paragraph 2** are not Contract Documents.
11. **Contract Price** - The moneys payable by **OWNER** to **CONTRACTOR** for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of **Article XI, paragraph 6** in the case of Unit Price Work).
12. **Contract Times** -The numbers of days or the dates stated in the Agreement: (i) to achieve Substantial Completion, and (ii) to complete the Work so that it is ready for final payment.
13. **CONTRACTOR** - The person, firm or corporation with whom **OWNER** has entered into the Agreement.

14. **Defective** - An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, in that it does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to final payment (unless responsibility for the protection thereof has been assumed by **OWNER** at Substantial Completion in accordance with **Article XIV, paragraph 5 and 6**).
15. **Drawings** - The drawings have been prepared or approved by the **ENGINEER**, and are the graphic and pictorial portions of the Contract Documents, wherever located and whenever issued, showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules and diagrams.
16. **Effective Date of the Agreement** - The date indicated in the Agreement on which it becomes effective, but if no such date is indicated it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
17. **ENGINEER** - The **ENGINEER** is the person lawfully licensed to practice Engineering or an entity lawfully practicing Engineering identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The term "**ENGINEER**" means the Engineer or the Engineer's authorized representative.
18. **Field Order** - A written order issued by the **ENGINEER** which orders minor changes in the Work which does not involve a change in the Contract Price or the Contract Times.
19. **General Provisions** - Section 100 of the NYSDOT Standard Specifications.
20. **Hazardous Waste** - The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
21. **Laws or Regulations** - Any and all applicable laws, rules, regulations, ordinances, codes and orders of any and all governmental bodies, agencies, authorities and courts having jurisdiction.
22. **Liens** - Liens, charges, security interests or encumbrances upon real property or personal property.
23. **Milestone** - A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.
24. **Notice of Award** - The written notice by **OWNER** to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions precedent enumerated therein, within the time specified, **OWNER** will sign and deliver the Agreement.
25. **Notice to Proceed** - A written notice given by **OWNER** to **CONTRACTOR** fixing the date on which the Contract Times will commence to run and on which **CONTRACTOR** shall start to perform **CONTRACTOR's** obligations under the Contract Documents.
26. **OWNER** - The term "**OWNER**" means Saratoga County or its authorized representative.
27. **Partial Utilization** - Use by **OWNER** of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all Work.
28. **PCBs** - Polychlorinated biphenyls.

29. **Petroleum** -Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Wastes and crude oils.
30. **Project** - The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.
31. **Radioactive Material** - Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
32. **Resident Project Representative** - The authorized representative of the **ENGINEER** who may be assigned to the site or any part thereof.
33. **Samples** - Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of Work will be judged.
34. **Shop Drawings** - All drawings, diagrams, illustrations, schedules and other data or information which are specifically prepared or assembled by or for **CONTRACTOR** and submitted by **CONTRACTOR** to illustrate some portion of the Work.
35. **Specifications** - Those portions of the Contract Documents consisting of written technical requirements for materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.
36. **Subcontractor** - An individual, firm or corporation having a direct contract with **CONTRACTOR** or with any other Subcontractor for the performance of a part of the Work at the site.
37. **Substantial Completion** - The Work (or a specified part thereof) has progressed to the point where, in the opinion of **ENGINEER** and the **OWNER** it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended; or if no such certificate is issued, when the Work is complete and ready for final payment as evidenced by **ENGINEER's** written recommendation of final payment. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.
38. **Supplementary Conditions** - The part of the Contract Documents which amends or supplements these General Conditions.
39. **Supplier** - A manufacturer, fabricator, supplier, distributor, materialmen or vendor having a direct contract with **CONTRACTOR** or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by **CONTRACTOR** or any Subcontractor.
40. **Underground Facilities** - All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials; electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.
41. **Unit Price Work** - Work to be paid for on the basis of unit prices.
42. **Work** -The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials and equipment into the construction, and performing or furnishing services and furnishing documents, all as required by the Contract Documents.

43. **Work Change Directive** - A written directive to **CONTRACTOR**, issued on or after the effective date of the Agreement and signed by **OWNER** and recommended by **ENGINEER** ordering an addition, deletion or revision in the Work, or responding to differing or unforeseen physical conditions under which the Work is to be performed as provided in **Article IV, paragraph 4** or the emergencies under **Article VI, paragraph 17**. A Work Change Directive will not change the Contract Price or the Contract Times, but is evidence that the parties expect that the change directed or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times as provided in paragraph **Article XI and XII**.
44. **Written Amendment** - A written amendment of the Contract Documents, signed by **OWNER** and **CONTRACTOR** on or after the Effective Date of the Agreement and normally dealing with the non-engineering or non-technical rather than strictly construction-related aspects of the Contract Documents.

ARTICLE II - PRELIMINARY MATTERS

1. Execution of Contract:

- a. Within 10 days after receipt of the Notification of Award to the **CONTRACTOR** from **OWNER**, **CONTRACTOR** shall deliver six (6) executed contracts with original signatures for the work to the **OWNER**. Execution of the Contract by the **CONTRACTOR** is a representation that the **CONTRACTOR** has visited the site, become familiar with local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents.

2. Delivery of Bonds and Insurances:

- a. When **CONTRACTOR** delivers the executed Agreements to **OWNER**, **CONTRACTOR** shall simultaneously deliver to **OWNER** such Bonds and Insurances as **CONTRACTOR** may be required to furnish in accordance with **Article V**.

3. Copies of Documents:

- a. **OWNER** shall furnish to **CONTRACTOR** up to four (4) copies (unless otherwise specified in the Supplementary Conditions) of the Contract Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.

4. Commencement of Contract Times; Notice to Proceed:

- a. The Contract Times will commence to run on the 30th day after the Effective Date of the Agreement, or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the 60th day after the day of Bid opening or the 30th day after the Effective Date of the Agreement, whichever date is earlier.

5. Starting the Work:

- a. **CONTRACTOR** shall start to perform the Work on the date when the Contract Times commence to run, but no Work shall be done at the site prior to the date on which the Contract Times commence to run.

6. Before Starting Construction:

- a. Before undertaking each part of the Work, **CONTRACTOR** shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. **CONTRACTOR** shall promptly report in writing to **ENGINEER** any conflict, error, ambiguity or discrepancy which **CONTRACTOR** may discover and shall obtain a written interpretation or clarification from **ENGINEER** before proceeding with any Work affected thereby; however, **CONTRACTOR** shall not be liable to **OWNER** or **ENGINEER** for the failure to report any conflict, error, ambiguity or discrepancy in the Contract Documents, unless **CONTRACTOR** knew or reasonably should have known thereof.
- b. Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements). **CONTRACTOR** shall submit to **ENGINEER** for review:
 - i. a preliminary progress schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents.
 - ii. a preliminary schedule of Shop Drawing and Sample submittals which will list each required submittal and the times for submitting, reviewing and processing such submittal;
 - iii. a preliminary schedule of values for all of the Work which will include quantities and prices of items aggregating the Contract Price and will subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work. The schedule of values for unit price contracts is the itemized unit price bid submitted at the time of bid by the **CONTRACTOR**.
- c. Before any Work at the site is started. **CONTRACTOR** shall deliver to **OWNER**, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which **CONTRACTOR** and **OWNER** respectively are required to purchase and maintain in accordance with **Article V, paragraphs 2, 3 and 4**.

7. Preconstruction Conference:

- a. Within 20 days after the Notice to Proceed is issued, but before any Work at the site is started, a conference attended by **CONTRACTOR, ENGINEER, OWNER** and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in **Article VI, paragraphs 18 and 19** procedures for handling Shop Drawings and other submittals, processing Applications for Payment and maintaining required records.

8. Initially Acceptable Schedules:

- a. Unless otherwise provided in the Contract Documents, at least 10 days before submission of the first Application for Payment a conference attended by **CONTRACTOR, ENGINEER** and others as appropriate will be held to review for acceptability to **ENGINEER** as provided below the schedules submitted in accordance with **Article II, paragraph 6**. **CONTRACTOR** shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to **CONTRACTOR** until the schedules are submitted to and acceptable to **ENGINEER** as provided below. The progress schedule will be acceptable to **ENGINEER** as providing an orderly progression of the Work to completion within any specified Milestones and the Contract Times, but such acceptance will neither impose on **ENGINEER** responsibility for the sequencing, scheduling or progress of the Work nor interfere with or relieve **CONTRACTOR** from **CONTRACTOR'S**

full responsibility therefor. **CONTRACTOR's** schedule of Shop Drawing and Sample submissions will be acceptable to **ENGINEER** as providing a workable arrangement for reviewing and processing the required submittals. **CONTRACTOR's** schedule of values will be acceptable to **ENGINEER** as to form and substance.

9. Job Meetings:

- a. The **CONTRACTOR** or his authorized representative shall attend all job meetings called by **ENGINEER**. Failure to be represented at any job meeting which is held at a mutually agreed upon time or for which three (3) days oral or written notice is given shall in no way relieve **CONTRACTOR** from abiding by any and all decisions made at such meeting.

ARTICLE III - CONTRACT DOCUMENTS: INTENT; REFERENCE TO STANDARDS; REPORTING AND RESOLVING DISCREPANCIES; AMENDING; REUSE

1. Intent:

- a. The Contract Documents comprise the entire agreement between **OWNER** and **CONTRACTOR** concerning the Work. The Contract Documents are complementary; what is called for by one is as binding as if called for by all. The Contract Documents will be construed in accordance with the law of the place of the Project.
- b. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work, materials or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be furnished and performed whether or not specifically called for. Should any conflict be found in or between the drawings and specifications, the **CONTRACTOR** shall be deemed to have estimated on the basis of performing the work by the most expensive way. In case of such conflict, the drawings and specifications shall be construed or interpreted so as to secure the most substantial and complete performance of the work as is most consistent with its needs and requirements. When words or phrases which have a well-known technical or construction industry or trade meaning are used to describe Work, materials or equipment, such words or phrases shall be interpreted in accordance with that meaning. Clarifications and interpretations of the Contract Documents shall be issued by the **ENGINEER** after obtaining the consent of the **OWNER**.

2. Reference to Standards and Specifications of Technical Societies; Reporting and Resolving Discrepancies:

- a. Reference to standards, specifications, manuals or codes of any technical society, organization or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard, specification, manual, code or Laws or Regulations in effect at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
- b. If, during the performance of the Work, **CONTRACTOR** discovers any conflict, error, ambiguity or discrepancy within the Contract Documents or between the Contract Documents and any provision of any such Law or Regulation applicable to the performance of the Work or of any such standard, specification, manual or code or of any instruction of any Supplier referred to in **Article VI, paragraph 8**, **CONTRACTOR** shall report it to **ENGINEER** in writing at once, and, **CONTRACTOR** shall not proceed with the Work affected thereby (except in an emergency as authorized by **Article VI, paragraph 17**) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in **Article III, paragraph 3**; provided, however, that **CONTRACTOR** shall not

be liable to **OWNER** or **ENGINEER** for failure to report any such conflict, error, ambiguity or discrepancy unless **CONTRACTOR** knew or reasonably should have known thereof.

- c. Except as otherwise specifically stated in the Contract Documents or as may be provided by amendment or supplement thereto issued by one of the methods indicated in **Article III, paragraph 3**, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity or discrepancy between the provisions of the Contract Documents and:
 - i. the provisions of any such standard, specification, manual, code or instruction (whether or not specifically incorporated by reference in the Contract Documents); or
 - ii. the provisions of any such Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).
- d. No provision of any such standard, specification, manual, code or instruction shall be effective to change the duties and responsibilities of **OWNER** or **CONTRACTOR** or **ENGINEER** or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents, nor shall it be effective to assign to **OWNER** or **ENGINEER** or their agents or employees any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of any provision of the Contract Documents.
- e. Whenever in the Contract Documents the terms “as ordered,” “as directed,” “as required,” “as allowed,” “as approved” or terms of like effect or import are used, or the adjectives “reasonable,” “suitable,” “acceptable,” “proper” or “satisfactory” or adjectives of like effect or import are used to describe a requirement, direction, review or judgment of **ENGINEER** as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate, in general, the completed Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign to **ENGINEER** any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of any provision of the Contract Documents.

3. Amending and Supplementing Contract Documents:

- a. The Contract Documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof, pursuant to **Article X**, in one or more of the following ways:
 - i. a formal Written Amendment,
 - ii. a Change Order (pursuant to Article X paragraph 4), or
 - iii. a Work Change Directive (pursuant to Article X paragraph 1)
- b. In addition, the requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, in one or more of the following ways:
 - i. a Field Order,
 - ii. **ENGINEER’s** approval of a Shop Drawing or sample, pursuant to **Article VI, paragraph 18**, or
 - iii. **ENGINEER’s** written interpretation or clarification.

4. Reuse of Documents:

- a. **CONTRACTOR**, and any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with **OWNER** (i) shall not have or acquire any title to or ownership rights in any of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of **ENGINEER** or **ENGINEER's** Consultant, and (ii) shall not reuse any of such Drawings, Specifications, other documents or copies on extensions of the Project or any other project without written consent of **OWNER** and **ENGINEER** and specific written verification or adaption by **ENGINEER**.

ARTICLE IV - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; POSSIBLE CONTRACT DOCUMENTS CHANGE; PRICE AND TIME ADJUSTMENTS; UNDERGROUND FACILITIES; REFERENCE POINTS

1. Availability of Lands:

- a. **OWNER** shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and such other lands which are designated for the use of **CONTRACTOR**. Upon reasonable written request, **OWNER** shall furnish **CONTRACTOR** with a correct statement of record legal title and legal description of the lands upon which the Work is to be performed and **OWNER's** interest therein as necessary for giving notices of or filing a mechanic's lien against such lands in accordance with applicable Laws and Regulations. **OWNER** shall identify any encumbrances or restrictions not of general application but specifically related to use of lands so furnished with which **CONTRACTOR** will have to comply in performing the Work. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by **OWNER**, unless otherwise provided in the Contract Documents. If **CONTRACTOR** and **OWNER** are unable to agree on entitlement to or the amount or extent of any adjustments in the Contract Price or the Contract Times as a result of any delay in **OWNER's** furnishing these lands, rights-of-way or easements, **CONTRACTOR** may make a claim therefor as provided in **Article XI, paragraph 2**. **CONTRACTOR** shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.
- b. The **CONTRACTOR** shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to the **CONTRACTOR** with the Contract Documents before commencing activities. Errors, inconsistencies or omissions discovered shall be reported to the **OWNER** at once.

2. Subsurface and Physical Conditions:

- a. Reports and Drawings: Reference is made to the Supplementary Conditions for identification of:
 - i. Subsurface Conditions: Those reports of explorations and tests of subsurface conditions at or contiguous to the site that have been utilized by **ENGINEER** in preparing the Contract Documents; and
 - ii. Physical Conditions: Those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except Underground Facilities) that have been utilized by **ENGINEER** in preparing the Contract Documents.

3. Limited Reliance on “Technical Data” by CONTRACTOR Authorized:

- a. **CONTRACTOR** may rely upon the general accuracy of the “technical data” contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such “technical data” is identified in the Supplementary Conditions. Except for such reliance on such “technical data”, **CONTRACTOR** may not rely upon or make any claim against **OWNER** or **ENGINEER**, with respect to:
 - i. the completeness of such reports and drawings for **CONTRACTOR’s** purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by **CONTRACTOR** and safety precautions and programs incident thereto, or
 - ii. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings, or
 - iii. any **CONTRACTOR** interpretation of or conclusion drawn from any “technical data” or any such data, interpretations, opinions or information.

4. Notice of Differing Subsurface or Physical Conditions:

- a. If the **CONTRACTOR** believes that any subsurface or physical condition at or contiguous to the site that is uncovered or revealed either:
 - i. is of such a nature as to establish that any “technical data” on which **CONTRACTOR** is entitled to rely as provided in **Article IV, paragraph 3** is materially inaccurate, or
 - ii. is of such a nature as to require a change in the Contract Documents, or
 - iii. differs materially from that shown or indicated in the Contract Documents, or
 - iv. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents; then the **CONTRACTOR** shall promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as permitted by **Article VI, paragraph 17**), notify **OWNER** and **ENGINEER** in writing about such condition, **CONTRACTOR** shall not further disturb such conditions or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

ENGINEER will promptly review the pertinent conditions, determine the necessity of **OWNER’s** obtaining additional exploration or tests with respect thereto.

5. Possible Contract Documents Change:

- a. If **ENGINEER** concludes that a change in the Contract Documents is required as a result of a condition that meets one (1) or more of the categories in **Article IV, paragraph 4**, a Work Change Directive or a Change Order will be issued as provided in **Article X** to reflect and document the consequences of such change.

6. Possible Price and Times Adjustments:

- a. An equitable adjustment in the Contract Price or in the Contract Times, or both, will be allowed to the extent that the existence of such uncovered or revealed condition causes an increase or decrease in

CONTRACTOR's cost of, or time required for performance of, the Work; subject, however, to the following:

- i. such condition must meet any one (1) or more of the categories described in **Article IV, paragraph 4**:
 - ii. a change in the Contract Documents pursuant to **Article IV, paragraph 4** will not be an automatic authorization of nor a condition precedent to entitlement to any such adjustment;
 - iii. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of **Article XI, paragraph 6**; and
 - iv. **CONTRACTOR** shall not be entitled to any adjustment in the Contract Price or Times if:
 - a. **CONTRACTOR** knew of the existence of such conditions at the time **CONTRACTOR** made a final commitment to **OWNER** in respect of Contract Price and Contract Times by the submission of a bid or becoming bound under a negotiated contract; or
 - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test or study of the site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for **CONTRACTOR** prior to **CONTRACTOR's** making such final commitment; or
 - c. **CONTRACTOR** failed to give the written notice within the time and as required by **Article IV, paragraph c**.
- b. If **OWNER** and **CONTRACTOR** are unable to agree on entitlement to or as to the amount or length of any such equitable adjustment in the Contract Price or Contract Times, a claim may be made therefor as provided in **Articles XI and XII**. However, **OWNER** and **ENGINEER** shall not be liable to **CONTRACTOR** for any claims, costs, losses or damages sustained by **CONTRACTOR** on or in connection with any other project or anticipated project.

7. **Underground Facilities:**

- a. **Shown or Indicated:** The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is based on information and data furnished to **OWNER** or **ENGINEER** by the owners of such Underground Facilities or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
 - i. **OWNER** or **ENGINEER** shall not be responsible for the accuracy or completeness of any such information or data; and
 - ii. The cost of all of the following will be included in the Contract Price and **CONTRACTOR** shall have full responsibility for: (i) reviewing and checking all such information and data, (ii) locating all Underground Facilities shown or indicated in the Contract Documents. (iii) coordination of the Work with the owners of such Underground Facilities during construction, and (iv) the safety and protection of all such Underground Facilities as provided in **Article VI, paragraph 14** and repairing any damage thereto resulting from the Work.
- b. **Not Shown or Indicated:** If an Underground Facility is uncovered or revealed at or contiguous to the site which was not shown or indicated in the Contract Documents. **CONTRACTOR** shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by **Article VI, paragraph 17**), identify the owner of such Underground Facility and give written notice to that owner and to **OWNER**

and **ENGINEER**. **ENGINEER** will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence of the Underground Facility. If **ENGINEER** concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued as provided in **Article X** to reflect and document such consequences. During such time, **CONTRACTOR** shall be responsible for the safety and protection of such Underground Facility as provided in **Article VI, paragraph 14**. **CONTRACTOR** shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, to the extent that they are attributable to the existence of any Underground Facility that was not shown or indicated in the Contract Documents and that **CONTRACTOR** did not know of any could not reasonably have been expected to be aware of or to have anticipated. If **OWNER** and **CONTRACTOR** are unable to agree on entitlement to or the amount or length of any such adjustment in Contract Price or Contract Times. **CONTRACTOR** may make a claim therefor as provided in **Article XI, paragraph 2**. However, **OWNER** and **ENGINEER** shall not be liable to **CONTRACTOR** for any claims, costs, losses or damages incurred or sustained by **CONTRACTOR** on or in connection with any other project or anticipated project.

8. Reference Points:

- a. **OWNER** shall provide engineering surveys to establish reference points for construction which in **ENGINEER's** judgment are necessary to enable **CONTRACTOR** to proceed with the Work. **CONTRACTOR** shall be responsible for laying out the Work, shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of **OWNER**. **CONTRACTOR** shall report to **ENGINEER** whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points by professionally qualified personnel.

9. Asbestos, PCBs, Petroleum, Hazardous Waste, Lead or Radioactive Material:

- a. **OWNER** shall be responsible for any Asbestos, PCBs, Petroleum, Hazardous Waste, Lead or Radioactive Material uncovered or revealed at the site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work and which may present a substantial danger to persons or property exposed thereto in connection with the Work at the site. **OWNER** shall not be responsible for any such materials brought to the site by **CONTRACTOR**, Subcontractor, Suppliers or anyone else for whom **CONTRACTOR** is responsible.
- b. **CONTRACTOR** shall immediately: (i) stop all Work in connection with such hazardous condition and in any area affected thereby (except in an emergency as required by **Article VI, paragraph 17**), and (ii) notify **OWNER** and **ENGINEER** (and thereafter confirm such notice in writing). **OWNER** shall promptly consult with **ENGINEER** concerning the necessity for **OWNER** to retain a qualified expert to evaluate such hazardous condition or take corrective action, if any. **CONTRACTOR** shall not be required to resume Work in connection with such hazardous condition or in any such affected area until after **OWNER** has obtained any required permits related thereto and delivered to **CONTRACTOR** special written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (ii) specifying any special conditions under which such Work may be resumed safely. If **OWNER** and **CONTRACTOR** cannot agree as to entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Times as a result of such Work stoppage or such special conditions under which Work is agreed by **CONTRACTOR** to be resumed, either party may make a claim therefor as provided in **Articles XI, paragraph 2**.
- c. If after receipt of such special written notice **CONTRACTOR** does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then **OWNER** may order such portion of the Work that is in connection with such hazardous condition or in such affected area to be deleted from the Work. If **OWNER** and **CONTRACTOR** cannot

agree as to entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a claim therefor as provided in **Article XI, paragraph 2**. **OWNER** may have such deleted portion of the Work performed by **OWNER's** own forces or others in accordance with **Article VII, paragraph 1**.

- d. To the fullest extent permitted by Laws and Regulations, **OWNER** shall indemnify and hold harmless **CONTRACTOR**, Subcontractors, **ENGINEER** and the officers, directors, employees, agents, other consultants and subcontractors of each and any of them from and against all claims, costs, losses and damages arising out of or resulting from such hazardous condition, provided that: (i) any such claim cost, loss or damage is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, and (ii) nothing in this **Article V, paragraph 9** shall obligate **OWNER** to indemnify any person or entity from and against the consequences of that person's or entity's own negligence.
- e. The provisions of **Article IV, paragraph 9d** are not intended to apply to Asbestos, PCBs, Petroleum, Hazardous Waste, Lead or Radioactive Material uncovered or revealed at the site.

ARTICLE V—BONDS AND INSURANCE

1. Performance, Payment and Other Bonds:

- a. Simultaneously with the delivery of executed agreements for the work the **CONTRACTOR** shall deliver to the **OWNER** six (6) copies of the executed PERFORMANCE AND PAYMENT BONDS, bearing the date of the contract, in an amount equal to 100% of the accepted bid issued by a corporate surety licensed to do business in the State of New York, and acceptable to the **OWNER** as follows:
- b. The Performance Bond shall be conditioned upon the faithful performance of the terms of the contract, per PERFORMANCE BOND FORM annexed hereto.
- c. The Payment Bond shall be conditioned upon the prompt payment of all indebtedness incurred by the **CONTRACTOR** or any of his Subcontractors for labor or material incident to this contract and shall meet all requirements of Section 12 of the Lien Law of the State of New York, per PAYMENT BOND FORM annexed hereto. This bond shall remain in effect at least until one (1) year after the date of final payment, except as otherwise provided by Laws or Regulations or the Contract documents.
- d. If the surety on any Bond furnished by **CONTRACTOR** is declared a bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of **Article V, paragraph 1**. **CONTRACTOR** shall within 10 days thereafter substitute another Bond and surety, both of which must be acceptable to **OWNER**.

2. CONTRACTOR's Liability Insurance:

- a. General: The **CONTRACTOR** must maintain the insurance described in this Article during the period from the signing of the contract through the applicable date or dates required by this Article.
- b. Pre-filing: The **CONTRACTOR** shall not commence work under this Contract until he has filed with the **OWNER** triplicate copies of certificates as described in Paragraph D below.
- c. Subcontractor: The **CONTRACTOR** shall not permit any **SUBCONTRACTOR** to undertake any portion of his contract unless he has received from such **SUBCONTRACTOR** certificates verifying that the **SUBCONTRACTOR** has all forms of coverage as are required of the **CONTRACTOR** by this Article. Such certificates shall be issued to the **CONTRACTOR** and shall be in such form as shall be

acceptable to the **CONTRACTOR**. Copies of such certificates shall be furnished to the **OWNER**, in triplicate.

d. Certificates: Simultaneously with delivery of executed agreements for the work, six (6) copies of the certificates as referred to in **Article V, paragraph 2** above shall be filed with the **OWNER**. They shall be issued to the **OWNER**, be in such form as meets the approval of the **OWNER**, and shall include information on each policy as follows:

- Name and address of the insured.
- Job location and title for the contract.
- Policy number and expiration date.
- Issuance date of certificate.
- Types of coverage afforded.
- Limit of liability afforded for each type.
- Types of operations as are covered (classifications).
- Types of operations or of coverages as are excluded (other than as are in the printed wording of the standard policies).
- Verifications that not less than thirty (30) days written notice shall be sent to the **OWNER** at the address shown in the specifications in the event that:
 - The policy is to be canceled.
 - The coverage is to be reduced or changed.
 - The policy is not to be renewed.

a sample of an acceptable insurance certificate follows on the next page:

SARATOGA COUNTY SAMPLE INSURANCE CERTIFICATE

ACORD. CERTIFICATE OF INSURANCE						
	PRODUCER		THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.			
	SAMPLE FORMAT		COMPANIES AFFORDING COVERAGE			
Please send certificate to: Saratoga County DPW 3654 Galway Road Ballston Spa, NY 12020	INSURED	COMPANY A				
		COMPANY B				
		COMPANY C				
		COMPANY D				
COVERAGES: 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.						
Liability Limits	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECT.	POLICY EXP.	LIMITS	
\$1,000,000 single limit coverage for liability and property damage	GENERAL LIABILITY				GENERAL AGGREGATE	\$ 3,000,000.00
	X Commercial General Liability				PRODUCTS-COMP/OP	\$ 2,000,000.00
	Claims Made X Occur.				PERSONAL&ADV INJURY	\$ 1,000,000.00
	Owners & Contractor's Prot.				EACH OCCURRENCE	\$ 1,000,000.00
					FIRE DAMAGE	\$ 50,000.00
Automobile Liability Automobile Liability coverage required if contract calls for any transportation services or use of an automobile.					MED EXP.	\$ 5,000.00
	AUTO LIABILITY				COMBINED SINGLE LIMIT	
	ANY AUTO				BODILY INJURY (PER PERSON)	
	ALL OWNED AUTOS				BODILY INJURY (PER ACCIDENT)	
	SCHEDULED AUTOS				PROPERTY DAMAGE	
	HIRED AUTOS					
NON-OWNED AUTO						
	GARAGE LIABILITY					
Additional Insured Saratoga County is named as additional insured	EXCESS LIABILITY				EACH OCCURRENCE	
	Umbrella Form				AGGREGATE	
	Other than Umbrella Form					
	WORKERS COMP. AND EMPLOYER'S LIABILITY				STATUTORY LIMITS - EACH ACCIDENT	
					DISEASE POLICY LIMIT	
					DISEASE EACH EMP.	
Certificate Holder County of Saratoga 40 McMaster Street Ballston Spa, NY 12020	OTHER					
	DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS					
Saratoga County is named as additional insured. List Other Additional Insureds as may be required.						
Cancellation Clause Shall assure 30 days written notice	CERTIFICATE HOLDER				CANCELLATION: Should any of the above described policies be	
	SARATOGA COUNTY				cancelled before the expiration date thereof, the insurance company will	
	40 MCMASTER ST.				endeavor to mail 30 days written notice to the certificate holder named to	
	BALLSTON SPA, NY 12020				the left, but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives.	
					Authorized Representative	

- e. By the filing of such Certificates, the **CONTRACTOR** authorizes the **OWNER** to make direct inquiry, from the insurance carrier and for the insurance carrier to make reply direct to the **OWNER** at any time in the event of any question as to coverage in force during the performance of this contract.
- f. Type of Coverage Required - The forms of coverage required of each **CONTRACTOR** shall, with the limits indicated, include:
 - i. Workman's Compensation Insurance as required by the laws of the State of New York.
 - ii. Comprehensive General Liability Insurance including:
 - Manufacturer's and Contractor's coverage on all premises and operations.
 - Elevators or Hoists, if any.
 - Contractor's Protective Liability.
 - Completed operations.
 - General aggregate limit \$3,000,000.
 - iii. Automobile Liability Insurance on: owned, non-owned, and hired vehicles.
 - Bodily Injury – As to each person - \$1,000,000; each accident - \$3,000,000
 - Property Damage – Each accident - \$1,000,000
 - iv. Protective Liability Insurance: Protective Liability Insurance for the **OWNER and ENGINEER**, and their Agents. Such coverage shall continue for a period of no less than one (1) year from the date of final acceptance of all work under this contract.

MINIMUM LIMITS

<u>Bodily Injury Liability</u>		<u>Property Damage Liability</u>	
Each Person	Each Accident	Each Accident	Aggregate
\$1,000,000	\$3,000,000	\$1,000,000	\$1,000,000

NOTE: Where coverage is under classifications, as normally excluded XCU (explosion, collapse, or underground damage) **CONTRACTOR** must obtain coverage to eliminate such exclusions.

- g. Each of the above types of policies furnished with limits of not less than the indicated amounts and shall name the **OWNER and ENGINEER** as additional insured and specifically insuring the contractual liability created by the hold harmless and indemnity provisions of this agreement. Such coverage shall continue for a period of no less than one (1) year from the date of final acceptance of all work under this contract.
- h. The policies of insurance so required by this **Article V, paragraph 2** to be purchased and maintained shall:
 - i. include contractual liability covering **CONTRACTOR's** indemnity obligations under **Article VI, paragraph 22**;
 - ii. remain in effect for a period of no less than one (1) year from the date of final acceptance and at all times thereafter when **CONTRACTOR** may be correcting, removing or replacing defective Work in accordance with **Article XIII** and;

- iii. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two (2) years after final payment (and **CONTRACTOR** shall furnish **OWNER** and each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued evidence satisfactory to **OWNER** and any such additional insured of continuation of such insurance at final payment and one year thereafter).

3. **Worker's Compensation Insurance:**

- a. This agreement shall be void and of no affect unless through the term of this Agreement **CONTRACTOR**, in compliance with the provisions of the Worker's Compensation Law, shall secure compensation for the benefit of and keep insured during the life of this Agreement such employees as are satisfied to be insured according to the law.

4. **OWNER's Liability Insurance:**

- a. In addition to the insurance required to be provided by **CONTRACTOR** under **Article V, paragraph 2**, **OWNER**, at **OWNER's** option, may purchase and maintain at **OWNER's** expense **OWNER's** own liability insurance as will protect **OWNER** against claims which may arise from operations under the Contract Documents.

5. **Property Insurance:**

- a. **CONTRACTOR** shall purchase and maintain property insurance upon the Work at the site in the amount of the full replacement costs thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 - i. include the interests of **OWNER, CONTRACTOR, ENGINEER**, Subcontractors and any other persons or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;
 - ii. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework and Work in transit and insure against at least the following perils fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils as may be specifically required by the Supplementary Conditions;
 - iii. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 - iv. cover materials and equipment stored at the site or at another location that was agreed to in writing by **OWNER** prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by **ENGINEER**; and
 - v. be maintained in effect until final payment is made unless otherwise agreed to in writing by **OWNER, ENGINEER** and **CONTRACTOR** with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.
- b. **OWNER** shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of **OWNER, ENGINEER, CONTRACTOR**, Subcontractor, and any other persons or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.

- c. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained by **OWNER** in accordance with **Article V, paragraph 4b** will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to **OWNER** and **CONTRACTOR** and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with **Article V, paragraph 5**.
- d. **OWNER** shall not be responsible for purchasing and maintaining any property insurance to protect the interests of **CONTRACTOR**, Subcontractors or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by **CONTRACTOR**, Subcontractor or others suffering any such loss and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.
- e. If **CONTRACTOR** requests in writing that other special insurance be included in the property insurance policies provided under **Article V, paragraph 2** or **Article V, paragraph 4**, **OWNER** shall, if possible, include such insurance, and the cost thereof will be charged to **CONTRACTOR** by appropriate Change Order or Written Amendment. Prior to commencement of the Work at the site, **OWNER** shall in writing advise **CONTRACTOR** whether or not such other insurance has been procured by **OWNER**.

6. Waiver of Rights:

- a. **OWNER** and **CONTRACTOR** intend that all policies purchased in accordance with **Article V, paragraph 2** and **Article V, paragraph 4**, will protect **OWNER, ENGINEER, CONTRACTOR, Subcontractors**, and all other persons or entities identified in the Supplementary Conditions to be listed as insured or additional insured in such policies and will provide primary coverage for all losses and damages caused by the perils covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have not rights of recovery against any of the insured or additional insured thereunder. **OWNER** and **CONTRACTOR** waive all rights against each other and their respective officers, directors, employees and agents for all losses and damages caused by, arising out of or resulting from any of the perils covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, **ENGINEER** and all other persons or entities identified in the Supplementary Conditions to be listed as insured or additional insured under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by **OWNER** as trustee or otherwise payable under any policy so issued.
- b. In addition, **OWNER** waives all rights against **CONTRACTOR**, Subcontractors, **ENGINEER** and the officers, directors, employees and agents of any of them, for:
 - i. loss due to business interruption, loss of use or other consequential loss extending beyond direct physical loss or damage to **OWNER's** property or the Work caused by, arising out of or resulting from fire or other peril, whether or not insured by **OWNER**; and
 - ii. loss or damage to the completed Project or part thereof caused by, arising out of or resulting from fire or other insured peril covered by any property insurance maintained on the completed Project or part thereof by **OWNER** during partial utilization pursuant to **Article XIV, paragraph 6**, after substantial completion pursuant to **Article XIV, paragraph 5** or after final payment pursuant to **Article XIV, paragraph 9**.
- c. Any insurance policy maintained by **OWNER** covering any loss, damage or consequential loss referred to in this **Article V, paragraph 4** shall contain provisions to the effect that in the event of payment of

any such loss, damage or consequential loss the insurers will have no rights of recovery against any of **CONTRACTOR**, Subcontractor and the officers, directors, employees and agents of any of them.

7. Receipt and Application of Insurance Proceeds

- a. Any insured loss under the policies of insurance required by **Article V, paragraph 2** and **Article V, paragraph 4** will be adjusted with **OWNER** and made payable to **OWNER** as fiduciary for the insured, as their interests may appear, subject to the requirements of any applicable mortgage clause and of this **Article V, paragraph 6**. **OWNER** shall deposit in a separate account any money so received, and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof and the Work and the cost thereof covered by an appropriate Change Order or Written Amendment.
- b. **OWNER** as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence be made, **OWNER** as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, **OWNER** as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, **OWNER** as fiduciary shall give bond for the proper performance of such duties.

8. Acceptance of Bonds and Insurance; Option to Replace:

- a. If either party (**OWNER** or **CONTRACTOR**) has any objection to the coverage afforded by or other provisions of the Bonds or insurance required to be purchased and maintained by the other party in accordance with **Article V** on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by **Article II, paragraph 8**. **OWNER** and **CONTRACTOR** shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the Bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent Bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

9. Partial Utilization -Property Insurance:

- a. If **OWNER** finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, such use or occupancy may be accomplished in accordance with **Article XIV, paragraph 6**; provided that no such use or occupancy shall commence before the insurers providing the property insurance have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE VI - CONTRACTOR'S RESPONSIBILITIES

1. Supervision and Superintendence:

- a. **CONTRACTOR** shall supervise, inspect and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. **CONTRACTOR** shall be solely responsible for the means, methods, techniques, sequences and procedures of construction, but **CONTRACTOR** shall not be responsible for the negligence of others in the design or specification of a specific means, method, technique, sequence or procedure of construction which is shown or indicated in and expressly required by the Contractor Documents. **CONTRACTOR** shall be responsible to see that the completed Work complies accurately with the Contract Documents.
- b. **CONTRACTOR** shall keep on the Work at all times during its progress a competent resident superintendent, who shall not be replaced without written notice to **OWNER** and **ENGINEER** except under extraordinary circumstances. The superintendent will be **CONTRACTOR's** representative at the site and shall have authority to act on behalf of **CONTRACTOR**. All communications to the superintendent shall be as binding as if given to **CONTRACTOR**.

2. Labor:

- a. **CONTRACTOR** shall provide competent, suitably qualified personnel to survey, lay out and construct the Work as required by the Contract Documents. **CONTRACTOR** shall at all times maintain good discipline and order at the site. Except as otherwise required for the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the site shall be performed during regular working hours and **CONTRACTOR** will not permit overtime work or the performance of Work on Saturday, Sunday or any legal holiday without the written consent of the NYS Department of Labor and **OWNER**, given after prior written notice to **ENGINEER**.
- b. **CONTRACTOR** shall pay those minimum wage rates prevailing in the locality of the project in accordance with Labor Laws §§220 and 220d and shall provide statutory benefits for disability, worker's compensation, unemployment insurance and social security. In accordance with NYS Labor Law 220, the **CONTRACTOR** and each of his sub-contractors, shall submit a transcript of their original payroll records directly to the **OWNER** within 30 days after the issuance of its first payroll, and every 30 days thereafter. The **CONTRACTOR** and subcontractor shall subscribe and affirm on the transcript that it is true, under penalty of perjury. The County shall receive and maintain the payroll transcripts. The **CONTRACTOR's** original payroll and the County's transcript's shall be preserved for a period of three (3) years following the date of Final Completion of the related contract.

3. Non-Discrimination Requirements:

- a. During the performance of the work, the **CONTRACTOR** agrees to conduct his operations in accordance with the requirements of Title VI of the Civil Rights Act of 1964 and or the Rehabilitation Act of 1973, as amended and Article 15 of the Executive Law of the State of New York. The contractor further agrees as follows:
- b. The **CONTRACTOR** will not discriminate against employees or applicants for employment because of race, creed, color, national origin, sex, sexual orientation, age, disability or marital status and will undertake programs or affirmative action to insure that they are afforded equal employment opportunities without discrimination. Such action shall be taken with reference, but not be limited to: recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, or termination, rates of pay or other forms of compensation and selection for training or retraining, including apprenticeship and on-the-job training.

- c. If the **CONTRACTOR** is directed to do so by the contracting agency or the owner, the **CONTRACTOR** shall request each employment agency, labor union, or authorized representative of workers with which he has a collective bargaining or other agreement or understanding, to furnish him with a written statement that such employment agency, labor union or representative will not discriminate because of race, color, creed, national origin, sex, sexual orientation, age, disability or marital status, and that such union or representative will affirmatively cooperate in the implementation of the **CONTRACTOR's** obligations hereunder.
- d. The **CONTRACTOR** will state, in all solicitations or advertisements for employees placed by or on behalf of the **CONTRACTOR**, that all qualified applicants will be afforded equal employment opportunities without discrimination because of race, color, creed, national origin, sex, age, disability or marital status.
- e. The **CONTRACTOR** will comply with all the applicable provisions of Title VI of the Civil Rights Act of 1964 and Rehabilitation Act of 1973 as amended, and of Article 15 of the Executive Law of the State of New York and of rules, regulations and orders issued pursuant thereto and will furnish all information and reports required by said acts of such rules, regulations and orders, and will permit access to its books, records and accounts and to its premises by the **OWNER** for the purpose of ascertaining compliance with said acts and such rules, regulations and orders.
- f. If the **CONTRACTOR** does not comply with the equal opportunity provisions of this Agreement, with the applicable provisions of said acts, or with such rules, regulations or orders, this Agreement or any portion thereof, may be canceled, terminated, or suspended or payments thereon withheld, in accordance with the applicable provisions authorized in said acts, and such other sanctions may be imposed and remedies invoked as are provided in said acts or by rule, regulation or order issued pursuant thereto, or as otherwise provided by law.
- g. The **CONTRACTOR** will include the provisions of the above clauses and all applicable contract provisions promulgated pursuant to Title VI of the Civil Rights Act of 1964 and Rehabilitation Act of 1973, as amended in every non-exempt subcontract or purchase order in such a manner that such provisions will be binding upon each subcontractor or vendor as to its work force. The **CONTRACTOR** will take such action in enforcing such provisions of such subcontract or purchase order as the **OWNER** may direct, including sanctions or remedies for non-compliance. If the **CONTRACTOR** becomes involved in or is threatened with litigation with a sub-contractor or vendor as a result of such direction, the **CONTRACTOR** shall promptly so notify the Attorney General, requesting him to intervene.
- h. The **CONTRACTOR** shall file, and to cause each of its sub-contractors to file, such periodic compliance reports as the Commissioner of Human Rights may prescribe by rule or regulation or as required by the **OWNER**. The **CONTRACTOR** shall keep and maintain such records pertaining to its employment practices as the Commissioner of Human Rights may prescribe by rule or regulation or as required by the **OWNER** and shall cause its subcontractors to keep and maintain such records

4. **Materials and Equipment:**

- a. Unless otherwise specified in the General Requirements **CONTRACTOR** shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.
- b. All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. All warranties and guarantees specifically called for by the Specifications shall expressly run to the benefit of **OWNER**. If required by **ENGINEER**, **CONTRACTOR** shall furnish

satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with instructions of the applicable Supplier, except as otherwise provided in the Contract Documents.

- c. No materials or supplies for the work shall be purchased by the **CONTRACTOR** or by any subcontractor subject to any chattel mortgage or under a conditional sale or other agreement by which an interest is retained by the seller. The **CONTRACTOR** warrants that he has good title to all materials and supplies used by him in the work, or re-sold to the owner pursuant to this contract document, free from all liens, claims or encumbrances.
- d. The apparent silence of the specifications as to any detail or the apparent omission from them of a detailed description concerning any work to be done and materials to be furnished shall be regarded as meaning that only the best general practice is to prevail and that only material and workmanship of first quality are to be used, and all interpretations of this specification shall be made upon this basis.
- e. Manufacturer's identification shall be inconspicuous, but where nameplates contain information relative to characteristics or maintenance, they shall be clearly visible and located for easy access.
- f. Materials shall be delivered in manufacturer's original sealed containers with complete identification of contents and manufacturer, and kept sealed in original containers until used. Labels shall not be removed until materials have been installed and inspected.
- g. Whenever the contract documents require delivery by the **CONTRACTOR** of any materials, equipment, or other items, the term delivery shall be deemed to include unloading and storing with proper protection where directed.
- h. All work shall be executed in a thorough, substantial, and workmanlike manner, and in complete accordance with the manufacturer's most recent recommendations unless otherwise specified or permitted by the **ENGINEER**. Sufficient competent workmen, foremen, and superintendents shall be employed at all times to permit the work to be pursued with diligence until completion.
- i. Materials shall be applied or installed under proper climatic conditions when they may be affected by temperature, moisture, humidity, or dust.
- j. As defined by federal and state laws, no materials incorporated into the project work shall contain asbestos.
- k. Title to all materials to be sold by the **CONTRACTOR** to the owner pursuant to the provisions of this contract shall vest in the owner upon their installation and incorporation into the project and payment therefore. Such materials then become the sole property of the owner, subject to the right of the **OWNER** and the **ENGINEER** to reject the same within a reasonable period for failure to conform to the provisions of the contract documents.
- l. The **CONTRACTOR**, at the request of the **OWNER**, shall furnish the **OWNER** confirmatory bills of sale and other instruments as may be required by it, properly executed, confirming to the owner title to such materials free of encumbrances. The **CONTRACTOR**, when requested, shall mark or otherwise identify all such materials as the property of the **OWNER**. In the event that after title has passed to the **OWNER** any such materials are rejected as being defective or not complying with the contract documents or otherwise unsatisfactory, title to said materials upon such rejection shall revert to the **CONTRACTOR**.
- m. All materials and work covered by partial payments made shall thereupon become the sole property of the owner, but this provision shall not be construed as relieving the **CONTRACTOR** from sole

responsibility for the care and protection of materials and work upon which payments have been made or the restoration of any damaged work, or as a waiver of the right of the Owner to require fulfillment of all the terms of the Contract.

5. **Warranty:**

- a. The **CONTRACTOR** warrants to the **OWNER** and **ENGINEER** that materials and equipment furnished under the Contract will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects not inherent in the quality required or permitted, and that the Work will conform with the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. The **CONTRACTOR's** warranty excludes remedy for damage or defect caused by abuse, modifications not executed by the **CONTRACTOR**, improper or insufficient maintenance, improper operation, or normal wear and tear under normal usage. If required by the **OWNER**, the Contract shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

6. **Progress Schedule:**

- a. **CONTRACTOR** shall adhere to the progress schedule established in accordance with **Article II, paragraph 6b** as it may be adjusted from time to time as provided below:
 - i. **CONTRACTOR** shall submit to **OWNER** for acceptance (to the extent indicated in **Article II, paragraph 6b**) proposed adjustments in the progress schedule that will not change the Contract Times (or Milestones). Such adjustments will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the General Requirements applicable thereto.
 - ii. Proposed adjustments in the progress schedule that will change the Contract Times (or Milestones) shall be submitted in accordance with the requirements of **Article XII, paragraph 1**. Such adjustments may only be made by a Change Order or Written Amendment in accordance with **Article X**.

7. **Substitutes and "Or-Equal" Items:**

- a. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent or "or-equal" item or no substitution is permitted, other items of material or equipment of other Suppliers may be accepted by **ENGINEER** under the following circumstances:
 - i. "Or-Equal": If in **ENGINEER's** sole discretion an item of material or equipment proposed by **CONTRACTOR** is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by **ENGINEER** as an "or-equal" item, in which case review and approval of the proposed item may, in **ENGINEER's** sole discretion, be accomplished without compliance with some or all of the requirements for acceptance of proposed substitute items.
 - ii. Substitute Items: If in the **ENGINEER's** sole discretion an item of material or equipment proposed by **CONTRACTOR** does not qualify as an "or-equal" item under **Article VI, paragraph 7**, it will be considered a proposed substitute item. **CONTRACTOR** shall submit sufficient information as provided below to allow **ENGINEER** to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. The procedure for

review by the **ENGINEER** will include the following as supplemented in the General Requirements and as **ENGINEER** may decide is appropriate under the circumstances. Requests for review of proposed substitute items of material or equipment will not be accepted by **ENGINEER** from anyone other than **CONTRACTOR**. If **CONTRACTOR** wishes to furnish or use a substitute item of material or equipment, **CONTRACTOR** shall first make written application to **ENGINEER** for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified and be suited to the same use as the specified. The application will state the extent, if any, to which the evaluation and acceptance of the proposed substitute will prejudice **CONTRACTOR'S** achievement of Substantial Completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with **OWNER** for work on the Project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs or credits that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which will be considered by **ENGINEER** in evaluating the proposed substitute. **ENGINEER** may require **CONTRACTOR** to furnish additional data about the proposed substitute.

- b. **CONTRACTOR's** Expense: All data to be provided by **CONTRACTOR** in support of any proposed "or-equal" or substitute item will be at **CONTRACTOR's** expense.
- c. Substitute Construction Methods or Procedures: If a specific means, method, technique, sequence or procedure of construction is shown or indicated in and expressly required by the Contract Documents, **CONTRACTOR** may furnish or utilize a substitute means, method, technique, sequence or procedure of construction acceptable to **ENGINEER**. **CONTRACTOR** shall submit sufficient information to allow **ENGINEER**, in **ENGINEER's** sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The procedure for review by **ENGINEER** will be similar to that provided in **Article VI, paragraph 7**.
- d. **ENGINEER's** Evaluation: **ENGINEER** will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to **Article VI, paragraph 7 and Article VI paragraph 19**. **ENGINEER** will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized without **ENGINEER'S** prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. **OWNER** may require **CONTRACTOR** to furnish at **CONTRACTOR's** expense a special performance guarantee or other surety with respect to any "or-equal" or substitute. Whether or not **ENGINEER** accepts a substitute item so proposed or submitted by **CONTRACTOR**, **CONTRACTOR** will reimburse **ENGINEER** for the charges of **ENGINEER** for evaluating each such proposed substitute item (if any).

8. Concerning Subcontractors, Suppliers and Others:

- a. **CONTRACTOR** shall not employ any Subcontractor, Supplier or other person or organization (including those acceptable to **OWNER** and **ENGINEER** as indicated in **Article VI, paragraph 8b**), whether initially or as a substitute, against whom **OWNER** and **ENGINEER** may have reasonable objection. **CONTRACTOR** shall not be required to employ any Subcontractor, Supplier or other person or organization to furnish or perform any of the Work against whom **CONTRACTOR** has reasonable objection.
- b. Unless otherwise stated in the Contract Documents or the bidding requirements, the **CONTRACTOR**, as soon as practicable after award of the Contract, shall furnish in writing to the **OWNER** through the **ENGINEER** the names of persons or entities (including those who are to furnish materials or equipment

fabricated to a special design) proposed for each principal portion of the Work. The **ENGINEER** will promptly reply to the **CONTRACTOR** in writing stating whether or not the **OWNER** or the **ENGINEER**, after due investigation, has reasonable objection to any such proposed person or entity. Failure of the **OWNER** or **ENGINEER** to reply promptly shall constitute notice of no reasonable objection.

- c. **CONTRACTOR** shall be fully responsible to **OWNER** and **ENGINEER** for all acts and omissions of Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with **CONTRACTOR** just as **CONTRACTOR** is responsible for **CONTRACTOR's** own acts and omissions. Nothing in the Contract Documents shall create for the benefit of any such Subcontractor, Supplier or other person or organization any contractual relationship between **OWNER** or **ENGINEER** and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of **OWNER** or **ENGINEER** to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by Laws and Regulations.
- d. **CONTRACTOR** shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with **CONTRACTOR**. **CONTRACTOR** shall require all Subcontractors, Suppliers and such other persons and organizations performing or furnishing any of the Work to communicate with the **ENGINEER** through **CONTRACTOR**.
- e. The divisions and sections of the Specifications and the identifications of any Drawings shall not control **CONTRACTOR** in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- f. All Work performed for **CONTRACTOR** by a Subcontractor or Supplier will be pursuant to an appropriate agreement between **CONTRACTOR** and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of **OWNER** and **ENGINEER**. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in **Article V, paragraph 4**, the agreements between the **CONTRACTOR** and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against **OWNER, CONTRACTOR**, and all other additional insureds for all losses and damages caused by, arising out of or resulting from any of the perils covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, **CONTRACTOR** will obtain the same.
- g. The **CONTRACTOR** agrees that he will indemnify and save the **OWNER** harmless from all claims growing out of the lawful demands of subcontractors, laborers, workman, mechanics, materialmen and furnishers of machinery and parts thereof, equipment, power tools and all supplies, including commissary, incurred in the furtherance of this contract. The **CONTRACTOR** shall, at the **OWNER's** request, furnish satisfactory evidence that all obligations of the nature hereinabove designated have been paid, discharged, or waived. If the **CONTRACTOR** fails to do so, the **OWNER** may, after having served written notice on the said **CONTRACTOR**, either pay unpaid bills, of which the **OWNER** has written notice, direct, or withhold from the **CONTRACTOR's** unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the **CONTRACTOR** shall be resumed in accordance with the terms of this contract, but in no event shall the provisions of the sentence be construed to impose any obligation upon the Owner to either the **CONTRACTOR** or his surety.

- h. In paying any unpaid bills of the **CONTRACTOR**, the **OWNER** shall be deemed the agent of the **CONTRACTOR**, and any payment so made by the **OWNER** shall be considered as a payment made under the contract by the **OWNER** to the **CONTRACTOR** and the **OWNER** shall not be liable to the **CONTRACTOR** for any such payment made in good faith.
- i. Each subcontract agreement for a portion of the Work is assigned by the **CONTRACTOR** to the **OWNER** provided that:
 - i. assignment is effective only after termination of the Contract by the **OWNER** for cause and only for those subcontract agreements which the **OWNER** accepts by notifying the Subcontractor in writing; and
 - ii. assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

If the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted.

- j. **CONTRACTOR** shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of **OWNER** or **ENGINEER** its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by **OWNER** in the Contract Document. To the fullest extent permitted by Laws and Regulations. **CONTRACTOR** shall indemnify and hold harmless **OWNER** and **ENGINEER** and the officers, directors, employees, agents and other consultants of each and any of them from and against all claims, costs, losses and damages arising out of or resulting from any infringement or patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product or device not specified in the Contract Documents.

9. Permits:

- a. Unless otherwise provided in the Supplementary Conditions, **CONTRACTOR** shall obtain and pay for all construction permits and licenses. **OWNER** shall assist **CONTRACTOR**, when necessary, in obtaining such permits and licenses. **CONTRACTOR** shall pay all governmental charges and inspection fees necessary for the prosecution of the Work, which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. **CONTRACTOR** shall pay all charges of utility owners for connections to the Work, and **OWNER** shall pay all charges of such utility owners for capital costs related thereto such as plant investment fees.

10. Laws and Regulations:

- a. **CONTRACTOR** shall give all notices and comply with all Laws and Regulations applicable to furnishing and performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither **OWNER** nor **ENGINEER** shall be responsible for monitoring **CONTRACTOR's** compliance with any Laws or Regulations.
- b. If **CONTRACTOR** performs any Work knowing or having reason to know that it is contrary to Laws or Regulations. **CONTRACTOR** shall bear all claims, costs, losses and damages caused by, arising out of or resulting therefrom; however, it shall not be **CONTRACTOR's** primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve **CONTRACTOR** of **CONTRACTOR's** obligations under **Article III paragraph 3b**.

11. Taxes:

- a. The **OWNER** represents that it is exempt from payment of federal, state and local taxes, as well as Sales and Compensating Use Taxes of the State of New York.

12. Use of Premises:

- a. **CONTRACTOR** shall confine construction equipment, the storage of materials and equipment and the operations or workers to the site and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by Laws and Regulations, rights-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. **CONTRACTOR** shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any adjacent land or areas, resulting from the performance of the Work. Should any claim be made by any such owner or occupant because of the performance of the Work, **CONTRACTOR** shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law. **CONTRACTOR** shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless **OWNER** and anyone directly or indirectly employed by any from and against all claims, costs, losses and damages arising out of or resulting from any claim or action, legal or equitable, brought by any such owner or occupant against **OWNER** or any other party indemnified hereunder to the extent caused by or based upon **CONTRACTOR's** performance of the Work.
- b. During the progress of the Work, **CONTRACTOR** shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work **CONTRACTOR** shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery and surplus materials. **CONTRACTOR** shall leave the site clean and ready for occupancy by **OWNER** at Substantial Completion of the Work. **CONTRACTOR** shall restore to original condition all property not designated for alteration by the Contract Documents.
- c. All excavated material shall become the property of the **CONTRACTOR**. He shall remove it from the working areas as works proceeds. If the **CONTRACTOR** desires to deposit this surplus material upon private property, he shall first obtain written permission from such property owner or owners.
- d. The **CONTRACTOR** shall apply calcium chloride and/or water as directed by the **ENGINEER** to prevent undesirable dust conditions that may arise. Application and materials for this work shall conform to NYSDOT or FHWA specifications. Payment for this work is to be included in the various items of the contract.
- e. **CONTRACTOR** shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall **CONTRACTOR** subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

13. Record Documents:

- a. **CONTRACTOR** shall maintain in a safe place at the site one record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work Change Directives, Field Orders and written interpretations and clarifications in good order and annotated to show all changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to **ENGINEER** for reference. Upon completion of the work, these record documents, Samples and Shop Drawings will be delivered to **ENGINEER** for **OWNER**.

- b. **CONTRACTOR** shall keep all necessary records, books, diaries etc. of the performance of the Work in accordance with the Law and accepted construction and business practices. They shall be available to the **OWNER** and **ENGINEER**, the New York State Department of Labor and all other interested parties as dictated by Law, and shall be maintained by **CONTRACTOR** for three years following the final acceptance of the Work. In case any records are not so available, any items not supported by reason of the unavailability of such records shall be disallowed and payment has already been made, the **CONTRACTOR** shall refund to **OWNER** any amounts so disallowed.

14. Safety and Protection:

- a. **CONTRACTOR** shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. **CONTRACTOR** shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
 - i. all persons on the Work site or who may be affected by the Work:
 - ii. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and
 - iii. other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and Underground Facilities not designated for removal, relocation or replacement in the course of construction.
- b. **CONTRACTOR** shall comply with all applicable Laws and Regulations of any public body having jurisdiction for safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. **CONTRACTOR** shall notify owners of adjacent property and of Underground Facilities and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in **Article VI, paragraph 20b or Article VI, paragraph 20c** caused, directly or indirectly, in whole or in part, by **CONTRACTOR**, any subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by **CONTRACTOR** (except damage of loss attributable to the fault of Drawings or Specifications or to the acts or omissions of **OWNER** or **ENGINEER**, or anyone employed by **OWNER** or **ENGINEER** or anyone for whose acts **OWNER** may be liable, and not attributable, directly or indirectly in whole or in part, to the fault or negligence of **CONTRACTOR** or any Subcontractor, Supplier or other person or organization directly or indirectly employed by any of them). **CONTRACTOR's** duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and **ENGINEER** has issued a notice to **OWNER** and **CONTRACTOR** that the Work is acceptable.

15. Safety Representative:

- a. **CONTRACTOR** shall designate a qualified and experienced safety representative at the site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

16. Hazard Communication Programs:

- a. **CONTRACTOR** shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employees at the site in accordance with Laws or Regulations.

17. Emergencies:

- a. In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, **CONTRACTOR**, without special instruction or authorization from **OWNER** or **ENGINEER**, is obligated to act to prevent threatened damage, injury or loss. **CONTRACTOR** shall give **ENGINEER** prompt written notice if **CONTRACTOR** believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If **ENGINEER** determines that a change in the Contract Documents is required because of the action taken by **CONTRACTOR** in response to such an emergency, a Work Change Directive or Change Order will be issued to document the consequences of such action.
- b. The **CONTRACTOR** shall provide the **OWNER** with the names and telephone numbers of at least two (2) employees of the firm who can be reached 24 hours a day. This will enable the Owner to contact the **CONTRACTOR** any time that an emergency might arise involving the Contract's operations or responsibilities.

18. Shop Drawings and Samples:

- a. **CONTRACTOR** shall submit Shop Drawings to **ENGINEER** for review and approval in accordance with the accepted schedule of Shop Drawings and Sample submittals (see **Article II, paragraphs 6 & 8**). All submittals will be identified as **ENGINEER** may require and in the number of copies specified in the General Requirements. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to show **ENGINEER** the materials and equipment **CONTRACTOR** proposes to provide and to enable **ENGINEER** to review the information for the limited purposes required by **Article VI, paragraph 18**.
- b. **CONTRACTOR** shall also submit Samples to **ENGINEER** for review and approval in accordance with said accepted schedule of Shop Drawings and Sample submittals. Each Sample will be identified clearly as to material, Supplier, pertinent data such as catalog number and the use for which intended and otherwise as **ENGINEER** may require to enable **ENGINEER** to review the submittal for the limited purposes required by **Article VI, paragraph 18**. The numbers of each Sample to be submitted will be as specified in the Specification.

19. Submittal Procedures:

- a. Before submitting each Shop Drawing or Sample. **CONTRACTOR** shall have determined and verified:
 - i. all field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar information with respect thereto.
 - ii. all materials with respect to intended use, fabrication, shipping, handling, storage, assembly and installation pertaining to the performance of the Work, and
 - iii. all information relative to **CONTRACTOR's** sole responsibilities in respect of means, methods, techniques, sequences and procedures of construction and safety precautions and programs incident thereto.
- b. **CONTRACTOR** shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the **CONTRACTOR** Documents.
- c. Each submittal will bear a stamp or specific written indication that **CONTRACTOR** has satisfied **CONTRACTOR's** obligations under the Contract Documents with respect to **CONTRACTOR's** review and approval of that submittal.

- d. At the time of each submission, **CONTRACTOR** shall give **ENGINEER** specific written notice of such variations, if any, that the Shop Drawing or Sample submitted may have from the requirements of the Contract Documents, such notice to be in a written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each Shop Drawing and Sample submitted to **ENGINEER** for review and approval of each such variation.
- e. **ENGINEER** will review and approve Shop Drawings and Samples in accordance with the schedule of Shop Drawings and Sample submittals accepted by **ENGINEER** as required by **Article II, paragraphs 6 & 8**. **ENGINEER's** review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. **ENGINEER's** review and approval will not extend to means, methods, techniques, sequences or procedures of construction (except where a particular means, method, technique, sequence or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. **CONTRACTOR** shall make corrections required by **ENGINEER**, and shall return the required number of corrected copies of Shop Drawings and submit as required new Samples for review and approval. **CONTRACTOR** shall direct specific attention in writing to revisions other than the corrections called for by **ENGINEER** on previous submittals.
- f. **ENGINEER's** review and approval of Shop Drawings or Samples shall not relieve **CONTRACTOR** from responsibility for any variation from the requirements of the Contract Documents unless **CONTRACTOR** has in writing called **ENGINEER's** attention to each such variation at the time of submission as required by **Article VI, paragraph 19** and **ENGINEER** has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample approval; nor will any approval by **ENGINEER** relieve **CONTRACTOR** from responsibility for complying with the requirements of **Article VI, paragraph 19**.
- g. Where a Shop Drawing or Sample is required by the Contract Documents or the schedule of Shop Drawings and Sample submissions accepted by **ENGINEER** as required by **Article II, paragraph 6 & 8**, any related Work performed prior to **ENGINEER's** review and approval of the pertinent submittal will be at the sole expense and responsibility of **CONTRACTOR**.

20. **Continuing the Work:**

- a. **CONTRACTOR** shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with **OWNER**. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by **Article XV, paragraph 3** or as **OWNER** and **CONTRACTOR** may otherwise agree in writing.

21. **CONTRACTOR's General Warranty and Guarantee:**

- a. **CONTRACTOR** warrants and guarantees to **OWNER** and **ENGINEER** that all Work will be in accordance with the Contract Documents and will not be defective. **CONTRACTOR's** warranty and guarantee hereunder excludes defects or damage caused by:
 - i. abuse, modification or improper maintenance or operation by persons other than **CONTRACTOR**, Subcontractors or Suppliers; or
 - ii. normal wear and tear under normal usage.

- b. **CONTRACTOR's** obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of **CONTRACTOR's** obligation to perform the Work in accordance with the Contract Documents:
 - i. Observations by **ENGINEER**:
 - ii. recommendation of any progress or final payment by **ENGINEER**:
 - iii. the issuance of a certificate of Substantial Completion or any payment by **OWNER** to **CONTRACTOR** under the Contract Documents:
 - iv. use or occupancy of the Work or any part thereof by **OWNER**:
 - v. any acceptance by **OWNER** or any failure to do so:
 - vi. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by **ENGINEER** pursuant to **Article VI, paragraph 19f**:
 - vii. any inspection, test or approval by others; or
 - viii. any correction of defective Work by **OWNER**.

22. Indemnification:

- a. To the fullest extent permitted by Laws and Regulations, **CONTRACTOR** shall indemnify and hold harmless **OWNER, ENGINEER**, their employees, agents and other consultants of **OWNER** from and against all claims, costs, losses and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs) caused by, arising out of or resulting from the performance of the Work, provided that any such claim, cost, loss or damage: (i) is attributable to bodily injury, sickness, disease or death or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom , and (ii) is caused in whole or in part by any negligent act or omission of **CONTRACTOR**, any Subcontractor, any Supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of a person or entity indemnified hereunder or whether liability is imposed upon such indemnified party by Laws and Regulations regardless of the negligence of any such person or entity.
- b. In any and all claims against **OWNER** or **ENGINEER** or any of their consultants, agents, or employees by any employee (or the survivor or personal representatives of such employee) of **CONTRACTOR**, and Subcontractor, and Supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under **Article VI, paragraph 22** shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for **CONTRACTOR** or any such Subcontractor, Supplier or other person or organization under workers' compensation acts, disability benefit acts or other employee benefit acts.
- c. The indemnification obligations of **CONTRACTOR** shall not extend to the liability of **ENGINEER** and its consultants, officers, directors, employees or agents caused by the professional negligence, errors or omissions of any of them.

23. Survival of Obligations:

- a. All representations, indemnification's, warranties and guarantees made in, required by or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion and acceptance of the Work and termination or completion of the Agreement.

ARTICLE VII - OTHER WORK

1. Related Work at Site:

- a. **OWNER** may perform other work related to the Project at the site by **OWNER's** own forces, or let other direct contracts therefor which shall contain General Conditions similar to these, or have other work performed by utility owners. If the fact that such other work is to be performed was not noted in the Contract Documents, then: (i) written notice thereof will be given to **CONTRACTOR** prior to starting any such other work, and (ii) **CONTRACTOR** may make a claim therefor as provided in **Articles XI and XII** if **CONTRACTOR** believes that such performance will involve additional expense to **CONTRACTOR** or requires additional time and the parties are unable to agree as to the amount or extent thereof.
- b. **CONTRACTOR** shall afford each other **CONTRACTOR** who is a party to such a direct contract and each utility owner (and **OWNER**, if **OWNER** is performing the additional work with **OWNER's** employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and shall properly connect and coordinate the Work with theirs. Unless otherwise provided in the Contract Documents. **CONTRACTOR** shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. **CONTRACTOR** shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of **ENGINEER** and the others whose work will be affected. The duties and responsibilities of **CONTRACTOR** under this paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of **CONTRACTOR** in said direct contracts between **OWNER** and such utility owners and other contractors.
- c. The proper execution or results of any part of **CONTRACTOR's** Work depends upon work performed by others under this **Article VII**. **CONTRACTOR** shall inspect such other work and promptly report to **ENGINEER** in writing any delays, defects or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of **CONTRACTOR's** Work. **CONTRACTOR's** failure to report will constitute an acceptance of such other work as fit and proper for integration with **CONTRACTOR's** Work except for latent or non-apparent defects and deficiencies in such other work.

2. Coordination:

- a. If **OWNER** contracts with others for the performance of other work on the Project at the site, the following will be set forth in Supplementary Conditions:
 - i. the person, firm or corporation who will have authority and responsibility for coordination of the activities among the various prime contractors will be identified;
 - ii. the specific matters to be covered by such authority and responsibility will be itemized; and
 - iii. the extent of such authority and responsibilities will be provided.

- b. Unless otherwise provided in the Supplementary Conditions. **OWNER** shall have sole authority and responsibility in respect of such coordination.

ARTICLE VIII - OWNER'S RESPONSIBILITIES

1. Except as otherwise provided in these General Conditions, **OWNER** shall issue all communications to **CONTRACTOR** through **ENGINEER**.
2. In case of termination of the employment of **ENGINEER**, **OWNER** shall appoint an **ENGINEER** against whom **CONTRACTOR** has no reasonable objection, whose status under the Contract shall be that of the former **ENGINEER**.
3. **OWNER** shall furnish the data required of **OWNER** under the Contract Documents promptly and shall make payments to **CONTRACTOR** promptly when they are due as provided in **Article XIV**.
4. **OWNER's** duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in **Article IV** and refers to **OWNER's** identifying and making available to **CONTRACTOR** copies of reports of explorations and tests of subsurface conditions at the site and drawings of physical conditions in existing structures at or contiguous to the site that have been utilized by **ENGINEER** in preparing the Contract Documents.
5. **OWNER's** responsibilities in respect of purchasing and maintaining liability and property insurance are set forth in **Article V, paragraphs 3 & 4**.
6. **OWNER** is obligated to execute Change Orders as indicated in **Article X**.
7. **OWNER's** responsibility in respect of certain inspections, tests and approvals is set forth in **Article XIII**.
8. In connection with **OWNER's** right to stop Work or suspend Work, see **Article XV, paragraph 2**. **Article XV, paragraph 2** deals with **OWNER's** right to terminate services of **CONTRACTOR** under certain circumstances.
9. The **OWNER** shall not supervise, direct or have control or authority over, nor be responsible for, **CONTRACTOR's** means, methods, techniques, sequences or procedures of construction or the safety precautions and programs incident thereto, or for any failure of **CONTRACTOR** to comply with Laws and Regulations applicable to the furnishing or performance of the Work. **OWNER** will not be responsible for **CONTRACTOR's** failure to perform or furnish the Work in accordance with the Contract Documents.
10. **OWNER'S** responsibility in respect of undisclosed Asbestos. PCB's, Petroleum, Hazardous Waste, Lead or Radioactive Materials uncovered or revealed at the site is set forth in **Article IV, paragraph 9**.
11. If and to the extent **OWNER** has agreed to furnish **CONTRACTOR** reasonable evidence that financial arrangements have been made to satisfy **OWNER's** obligations under the Contract Documents, **OWNER's** responsibility in respect thereof will be as set forth in the Supplementary Conditions.

ARTICLE IX - ENGINEER'S STATUS DURING CONSTRUCTION

1. **OWNER's** Representative:
 - a. **ENGINEER** will be **OWNER's** representative during the construction period. The duties and responsibilities and the limitations of authority of **ENGINEER** as **OWNER's** representative during

construction are set forth in the Contract Documents and shall not be extended without written consent of **OWNER** and **ENGINEER**.

2. Visits to Site:

- a. **ENGINEER** will make visits to the site at intervals appropriate to the various stages of construction as **ENGINEER** deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of **CONTRACTOR's** executed Work. Based on information obtained during such visits and observations, **ENGINEER** will endeavor for the benefit of **OWNER** to determine, in general, if the Work is proceeding in accordance with the Contract Documents. **ENGINEER** will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. **ENGINEER's** efforts will be directed toward providing for **OWNER** a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and on-site observations, **ENGINEER** will keep **OWNER** informed of the progress of the Work and will endeavor to guard **OWNER** against defective Work. **ENGINEER's** visits and on-site observations are subject to all the limitations on **ENGINEER's** authority and responsibility set forth in **Article IX** and particularly, but without limitation, during or as a result of **ENGINEER's** on-site visits or observation of **CONTRACTOR's** Work **ENGINEER** will not supervise, direct, control or have authority over or be responsible for **CONTRACTOR's** means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of **CONTRACTOR** to comply with Laws and Regulations applicable to the furnishing or performance of the Work.

3. Clarifications and Interpretations:

- a. **ENGINEER** will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as **ENGINEER** may determine necessary, which shall be consistent with the intent of and reasonably inferable from Contract Documents. Such written clarifications and interpretations will be binding on **OWNER** and **CONTRACTOR**. If **OWNER** or **CONTRACTOR** believes that a written clarifications or interpretation justifies an adjustment in the Contract Price or the Contract Times and the parties are unable to agree to the amount or extent thereof, if any, **OWNER** or **CONTRACTOR** may make a written claim therefor as provided in **Article X, paragraph 2**.

4. Authorized Variations in Work:

- a. **ENGINEER** may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on **OWNER** and also on **CONTRACTOR** who shall perform the Work involved promptly. If **OWNER** or **CONTRACTOR** believes that a Field Order justifies an adjustment in the Contract Price or the Contract Times and the parties are unable to agree as to the amount or extent thereof, **OWNER** or **CONTRACTOR** may make a written claim therefor as provided in **Article XI or XII**.

5. Rejecting Defective Work:

- a. **ENGINEER** will have authority to disapprove or reject Work which **ENGINEER** believes to be defective, or that **ENGINEER** believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the complete Project as a functioning whole as indicated by the Contract Documents. **ENGINEER** will also have authority to require special inspection or testing of the Work as provided in **Article XIII, paragraph 3** whether or not the Work is fabricated, installed or completed.

- b. **ENGINEER** will determine the actual quantities and classifications of Unit Price Work performed by **CONTRACTOR**. **ENGINEER** will review with **CONTRACTOR** the **ENGINEER's** preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). **OWNER** will then in its sole discretion approve or disapprove of **ENGINEER's** determination. It is expressly agreed that under no circumstances shall work terminate or be suspended in the event of a dispute between the **OWNER** and **CONTRACTOR**.

6. **Decision on Disputes:**

- a. **ENGINEER** will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder, Claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work and Claims under **Articles XI and XII** in respect of changes in the Contract Price at Contract Times will be referred initially to **ENGINEER** in writing with a request for a formal decision in accordance with this paragraph. Written notice of each such claim, dispute or other matter will be delivered by the **CLAIMANT** to **ENGINEER** promptly (but in no event later than 30 days) after the start of the occurrence or event giving rise thereto, and written supporting data will be submitted to **ENGINEER** within 60 days after the start of such occurrence or event unless **ENGINEER** allows an additional period of time for the submission of additional or more accurate data in support of such claim, dispute or other matter. The **ENGINEER** shall submit any response to the **CLAIMANT** within 30 days after receipt of the **CLAIMANT's** last submittal (unless **ENGINEER** allows additional time). **ENGINEER** will render a formal decision in writing within 30 days after receipt of the **CLAIMANT's** submittal, if any, in accordance with this paragraph. **ENGINEER's** written decision on such claim, dispute or other matter will be final and binding upon **OWNER** and **CONTRACTOR** unless: (i) an appeal from **ENGINEER's** decision is taken within the time limits and in accordance with any "Dispute Resolution Agreement," entered into between **OWNER** and **CONTRACTOR**, or (ii) if no such Dispute Regulation Agreement has been entered into, a written notice of intention to appeal from **ENGINEER's** written decision is delivered by **OWNER** or **CONTRACTOR** to the other and **ENGINEER** within 30 days after the date of such decision and a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction to exercise such rights or remedies as the appealing party may have with respect to such claims, dispute or other matter in accordance with applicable Laws and Regulations within 60 days of the date of such decision, unless otherwise agreed in writing by **OWNER** and **CONTRACTOR**.
- b. When functioning as interpreter and judge under **Article IX**. **ENGINEER** will not show partiality to **OWNER** or to **CONTRACTOR** and will not be liable in connection with any interpretation or decision rendered in good faith such capacity. The rendering of a decision by **ENGINEER** pursuant to **Article IX** with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment as provided in **Article XIV, paragraph 9**) will be a condition precedent to any exercise by **OWNER** or **CONTRACTOR** of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such claim, dispute or other matter pursuant to **Article XVI**.
- c. **ENGINEER** will not supervise, direct, control or have authority over or be responsible for **CONTRACTOR's** means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of **CONTRACTOR** to comply with Laws and Regulations applicable to the furnishing or performance of the Work. **ENGINEER** will not be responsible for **CONTRACTOR's** failure to perform or furnish the Work in accordance with the Contract Documents.
- d. **ENGINEER** will not be responsible for the acts or omissions of **CONTRACTOR** or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

- e. **ENGINEER's** review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspections, tests and approvals and other documentation required to be delivered by paragraph **Article XIV, paragraph 8** will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests and approvals that the results certified indicate compliance with, the Contract Documents.
- f. The limitations upon authority and responsibility set forth in this paragraph shall also apply to **ENGINEER's** Consultants. Resident Project Representative and assistants.
- g. **ENGINEER** is expressly responsible for determining that the work complies with the contract documents.

ARTICLE X - CHANGES IN THE WORK

1. Without invalidating the Agreement and without notice to any surety, **OWNER** may, at any time or from time to time, order additions, deletions or revisions in the Work. Such additions, deletions or revisions will be authorized by a Written Amendment, a Change Order, or a Work Change Directive.
2. Upon receipt of any such document. **CONTRACTOR** shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
3. If **OWNER** and **CONTRACTOR** are unable to agree as to the extent, if any, of an adjustment in the Contract Price or an adjustment of the Contract Times that should be allowed as a result of a Work Change Directive, a claim may be made therefor as provided in **Article XI or Article XII**.
4. **CONTRACTOR** shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any Work performed that is not required by the Contract Documents as amended, modified and supplemented as provided in **Article III, paragraph 3** except in the case of an emergency as provided in **Article VI, paragraph 17** or in the case of uncovering Work as provided in **Article XIII, paragraph 4**.
5. **OWNER and CONTRACTOR** shall execute appropriate Change Orders recommended by **ENGINEER** (or Written Amendments) covering:
 - a. changes in the Work which are (i) ordered by **OWNER** pursuant to **Article X, paragraph 1**, (ii) required because of acceptance of defective Work under **Article XIII, paragraph 8** or correcting defective Work under **Article XIII, paragraph 6** or (iii) agreed to by the parties:
 - b. changes in the Contract Price or Contract Times which are agreed to by the parties; and
 - c. changes in the Contract Price or Contract Times which embody the substance of any written decision by the **ENGINEER** provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal. **CONTRACTOR** shall carry on the Work and adhere to the progress schedule as provided in **Article VI, paragraph 6**.
6. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be **CONTRACTOR's** responsibility, and the amount of each applicable Bond will be adjusted accordingly.

ARTICLE XI - CHANGE OF CONTRACT PRICE

1. Contract Price Constitutes Total Compensation:

- a. The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to **CONTRACTOR** for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by **CONTRACTOR** shall be at **CONTRACTOR's** expense without change in the Contract Price.

2. Claims for Adjustment:

- a. The Contract Price may only be changed by a Change Order or by a Written Amendment. Any claim for an adjustment in the Contract Price shall be based on written notice delivered by the party making the claim to the other party and to the **ENGINEER** promptly (but in no event later than 30 days) after the start of the occurrence or event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within 60 days after the start of such occurrence or event and shall be accompanied by claimant's written statement that the adjustment claimed covers all known amounts to which the claimant is entitled as a result of said occurrence or event. All claims for adjustments in the Contract Price shall be determined by **ENGINEER** in accordance with **Article XI, paragraph 3** if **OWNER** and **CONTRACTOR** cannot otherwise agree on the amount involved. No claim for an adjustment in the Contract Price will be valid if not submitted in accordance with this **Article XI, paragraph 2**.

3. Determination of Change Order Value:

- a. The value of any Work covered by a Change Order or of any claim for an adjustment in the Contract Price will be determined as follows:
 - i. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of **Article XI, paragraph 6**):
 - ii. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with **Article XI, paragraph 6**):
 - iii. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under **Article XI, paragraph 6**, on the basis of the Cost of the Work (determined as provided in **Article XI, paragraph 4**) plus a **CONTRACTOR's** fee for overhead and profit (determined as provided in **Article XI, paragraph 4**).

4. Cost of the Work:

- a. The term Cost of the Work means the sum of all costs necessarily incurred and paid by **CONTRACTOR** in the proper performance of the Work. Except as otherwise may be agreed to in writing by **OWNER**, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items and shall not include any of the costs itemized in **Article XI, paragraph 4b**:
 - i. Payroll costs for employees in the direct employ of **CONTRACTOR** in the performance of the Work under schedules of job classifications agreed upon by **OWNER** and **CONTRACTOR**. Such employees shall include without limitation superintendents, foremen and other personnel employed

full-time at the site. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work after regular working hours, on Saturday, Sunday or legal holidays, shall be included in the above to the extent authorized by **OWNER**.

- ii. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to **CONTRACTOR** unless **OWNER** deposits funds with **CONTRACTOR** with which to make payments, in which case the cash discounts shall accrue to **OWNER**. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to **OWNER**, and **CONTRACTOR** shall make provisions so that they may be obtained.
- iii. Payments made by **CONTRACTOR** to the Subcontractors for Work performed or furnished by Subcontractors. If required by **OWNER**, **CONTRACTOR** shall obtain competitive bids from subcontractors acceptable to **OWNER and CONTRACTOR** and shall deliver such bids to **OWNER** who will then determine which bids, if any, will be accepted. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work Plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as **CONTRACTOR's** Cost of the Work and fee as provided in **Article XI, paragraph 4**. All subcontractors shall be subject to the other provisions of the Contract Documents insofar as applicable.
- iv. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys and accountants) employed for services specifically related to the Work.
- v. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel and subsistence expenses of **CONTRACTOR's** employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost less market value of such items used but not consumed which remain the property of **CONTRACTOR**.
 - c. Rentals of all construction equipment and machinery and the parts thereof whether rented from **CONTRACTOR** or others in accordance with rental agreements approved by **OWNER**, and the costs of transportation, loading, unloading, installation, dismantling and removal thereof—all in accordance with the terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use or similar taxes related to the Work, and for which **CONTRACTOR** is liable, imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of **CONTRACTOR**, any Subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by **CONTRACTOR** in connection with the performance and furnishing of the Work (except losses and damages within the deductible amounts of

property insurance established by **OWNER** in accordance with **Article V, paragraph 4**), provided they have resulted from causes other than the negligence of **CONTRACTOR**, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of **OWNER**. No such losses, damages and expenses shall be included in the Cost of the Work for the purpose of determining **CONTRACTOR's** fee. If, however, any such loss or damage requires reconstruction and **CONTRACTOR** is placed in charge thereof, **CONTRACTOR** shall be paid for services a fee proportionate to that stated in **Article XI, paragraph 4c**.

- g. The cost of utilities, fuel and sanitary facilities at the site.
 - h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.
 - i. Cost of premiums for additional Bonds and insurance required because of changes in the Work.
- b. The term Cost of the Work shall not include any of the following:
- i. Payroll costs and other compensation of **CONTRACTOR's** officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by **CONTRACTOR** whether at the site or in **CONTRACTOR's** principal or a branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to or specifically covered by **Article XI, paragraph 4a** all of which are to be considered administrative costs covered by the **CONTRACTOR'S** fee.
 - ii. Expenses of **CONTRACTOR's** principal and branch offices other than **CONTRACTOR's** office at the site.
 - iii. Any part of **CONTRACTOR's** capital expenses, including interest on **CONTRACTOR's** capital employed for the Work and charges against **CONTRACTOR** for delinquent payments.
 - iv. Cost of premiums for all Bonds and for all insurance whether or not **CONTRACTOR** is required by the Contract Documents to purchase and maintain the same (except for the cost of premiums covered by **Article XI, paragraph 4a** above).
 - v. Costs due to the negligence of **CONTRACTOR**, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials of equipment wrongly supplied and making good any damage to property.
 - vi. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in **Article XI, paragraph 4**.
- c. The **CONTRACTOR's** fee allowed to **CONTRACTOR** for overhead and profit shall be determined as follows:
- i. a mutually acceptable fixed fee; or
 - ii. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

- a. for costs incurred under **Article XI, paragraphs 4a.i and 4a.ii**, the **CONTRACTOR's** fee shall be fifteen percent;
- b. for costs incurred under **Article XI, paragraph 4a.iii**, the **CONTRACTOR's** fee shall be five percent;
- c. where one or more tiers of subcontractors are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of **Article XI, paragraphs 4a.i, 4a.ii, 4a.iii and 4c.ii** is that the Subcontractor who actually performs or furnishes the Work, at whatever tier, will be paid a fee of fifteen percent of the costs incurred by such Subcontractor under **Article XI, paragraphs 4a.i and 4a.ii** and that any higher tier Subcontractor and **CONTRACTOR** will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
- d. no fee shall be payable on the basis of costs itemized under **Article XI, paragraphs 4a.iv, 4a.v and 4b**;
- e. the amount of credit to be allowed by **CONTRACTOR** to **OWNER** for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in **CONTRACTOR's** fee by an amount equal to five percent of such net decrease; and
- f. when both additions and credits are involved in any one change, the adjustment in **CONTRACTOR's** fee shall be computed on the basis of the net change in accordance with **Article XI, paragraphs 4c.ii.a and 4c.ii.e**, inclusive.
- g. Whenever the cost of any Work is to be determined pursuant to **Article XI, paragraphs 4a and 4b**, **CONTRACTOR** will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in form acceptable to **ENGINEER** an itemized cost breakdown together with supporting data.

5. Cash Allowances:

- a. It is understood that **CONTRACTOR** has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be furnished and performed for such sums as may be acceptable to **OWNER** and **ENGINEER**. **CONTRACTOR** agrees that:
 - i. the allowances include the cost to **CONTRACTOR** (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the site, and all applicable taxes; and
 - ii. **CONTRACTOR's** costs for unloading and handling on the site, labor, installation costs, overhead, profit and other expenses contemplated for the allowances have been included in the Contract Price and not in the allowances and no demand for additional payment on account of any of the foregoing will be valid.
- b. Prior to final payment, an appropriate Change Order will be issued as recommended by **ENGINEER** to reflect actual amounts due **CONTRACTOR** on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

6. Unit Price Work:

- a. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are

not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by **CONTRACTOR** will be made by **ENGINEER**.

- b. Each unit price will be deemed to include an amount considered by **CONTRACTOR** to be adequate to cover **CONTRACTOR's** overhead and profit for each separately identified item.
- c. **OWNER** or **CONTRACTOR** may make a claim for an adjustment in the Contract Price in accordance with **Article XI, paragraph 2** if:
 - i. the quantity of any item of Unit Price Work performed by **CONTRACTOR** differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 - ii. there is no corresponding adjustment with respect to any other item of Work; and
 - iii. if **CONTRACTOR** believes that **CONTRACTOR** is entitled to an increase in Contract Price as a result of having incurred additional expense or **OWNER** believes that **OWNER** is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE XII - CHANGE OF CONTRACT TIMES

1. The Contract Times (or Milestones) may be changed by a Change Order or a Written Amendment. Any claim for an adjustment of the Contract Times (or Milestones) shall be based on written notice delivered by the party making the claim to the other party and the **ENGINEER** promptly (but in no event later than 30 days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within 60 days after such occurrence (unless **ENGINEER** allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Times (or Milestones) shall be determined by **ENGINEER** in accordance with **Article IX, paragraph 6** if **OWNER** and **CONTRACTOR** cannot otherwise agree. No claim for an adjustment in the Contract Times (or Milestones) will be valid if not submitted in accordance with the requirements of this **Article XII, paragraph 1**.
2. All time limits stated in the Contract Documents are of the essence of the Agreement.
3. Where **CONTRACTOR** is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of **CONTRACTOR**, the Contract Times (or Milestones) will be extended in an amount equal to the time lost due to such delay if a claim is made therefor as provided in **Article XII, paragraph 1**. Delays beyond the control of **CONTRACTOR** shall include, but not be limited to, acts or neglect by **OWNER**, acts or neglect of utility owners or other contractors performing other work as contemplated by **Article VII**, fires, floods, epidemics, abnormal weather conditions or acts of God. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of **CONTRACTOR**.
4. Where **CONTRACTOR** is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of both **OWNER** and **CONTRACTOR**, an extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be **CONTRACTOR's** sole and exclusive remedy for such delay. In no event shall **OWNER** be liable to **CONTRACTOR**, any Subcontractor, any Supplier, any other person or organization, or to any surety for or employee or agent of any of them, for damages arising out of or resulting from (i) delays caused by or within the control of **CONTRACTOR**, or (ii) delays beyond the control of both parties including but not

limited to fires, floods, epidemics, abnormal weather conditions, acts of God or acts or neglect by utility owners or other contractors performing other work as contemplated by **Article VII**.

ARTICLE XIII - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

1. Notice of Defects:

- a. Prompt notice of all defective Work of which **OWNER** or **ENGINEER** has actual knowledge will be given to **CONTRACTOR**. All defective Work may be rejected, corrected or accepted as provided in this **Article XIII**.

2. Access to Work:

- a. **OWNER, ENGINEER** representatives and personnel of both of them, independent testing laboratories and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspecting and testing. **CONTRACTOR** shall provide them proper and safe conditions for such access and advise them of **CONTRACTOR's** site safety procedures and programs so that they may comply therewith as applicable.

3. Tests and Inspections:

- a. **CONTRACTOR** shall give **ENGINEER** timely notice of readiness of the Work for all required inspections, tests or approvals, and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- b. Tests, inspections and approvals of portions of the Work required by the Contract Documents or by laws, ordinances, rules, regulations or orders of public authorities having jurisdiction shall be made at an appropriate time. Unless otherwise provided, the **CONTRACTOR** shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the **OWNER**, or with the appropriate public authority, and shall bear all related costs of tests, inspections and approvals. The **CONTRACTOR** shall give the **ENGINEER** timely notice of when and where tests and inspections are to be made so the **ENGINEER** may observe such procedures. The **OWNER** shall bear costs of tests, inspections or approvals which do not become requirements until after bids are received or negotiations concluded.
- c. If the **ENGINEER** or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection or approval not included under **Article XIII, paragraph 3b**, **ENGINEER**, upon written authorization by the **OWNER**, will instruct the **CONTRACTOR** to make arrangements for such additional testing, inspection or approval by an entity acceptable to the **OWNER**, and the **CONTRACTOR** shall give timely notice to the **ENGINEER** of when and where tests and inspections are to be made so the **ENGINEER** may observe such procedures. The **OWNER** shall bear such costs except as provided in **Article XIII, paragraph 3b**.
- d. If such procedures for testing, inspection or approval under **Article XIII, paragraph 3b** reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, the **CONTRACTOR** shall bear all costs made necessary by such failure including those of repeated procedures and compensation for the **ENGINEER's** services and expenses.
- e. As otherwise specifically provided in the Contract Documents.
- f. If Laws or Regulations of any public body having jurisdiction require any work (or part thereof) specifically to be inspected, tested or approved by an employer or other representative of such public

body, **CONTRACTOR** shall assume full responsibility for arranging and obtaining such inspections, tests or approvals, pay all costs in connection therewith, and furnish **ENGINEER** the required certificates of inspection, or approval. **CONTRACTOR** shall also be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests or approvals required for **ENGINEER's** acceptance of materials or equipment to be incorporated in the Work, or of materials, mix designs, or equipment submitted for approval prior to **CONTRACTOR's** purchase thereof for incorporation in the Work.

- g. If any Work (or the work of others) that is to be inspected, tested or approved is covered by **CONTRACTOR** without written concurrence of **ENGINEER**, it must, if requested by **ENGINEER**, be uncovered for observation.
- h. Uncovering Work as provided in **Article XIII, paragraph 4** shall be at **CONTRACTOR's** expense unless **CONTRACTOR** has given **ENGINEER** timely notice of **CONTRACTOR's** intention to cover the same and **ENGINEER** has not acted with reasonable promptness in response to such notice.

4. Uncovering Work:

- a. If any Work is covered contrary to the written request of **ENGINEER**, it must, if requested by **ENGINEER**, be uncovered for **ENGINEER's** observation and replaced at **CONTRACTOR's** expense.
- b. If the work has been covered in accordance with **Article XIII, paragraphs 3g & 3h**, and if **ENGINEER** considers it necessary or advisable that covered work be observed by **ENGINEER** or inspected or tested by others, **CONTRACTOR**, at **ENGINEER's** request, shall uncover, expose or otherwise make available for observation, inspection or testing as **ENGINEER** may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, **CONTRACTOR** shall pay all claims, costs, losses and damages caused by, arising out of or resulting from such uncovering, exposure, observation, inspection and testing and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and **OWNER** shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, may make a claim therefor as provided in **Article XI**. If, however, such Work is not found to be defective, **CONTRACTOR** shall be allowed an increase in the Contract Price or an extension of the Contract Times (or milestones), or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement and reconstruction; and, if the parties are unable to agree as to the amount or extent thereof, **CONTRACTOR** may make a claim therefor as provided in **Articles XI and XII**.

5. OWNER May Stop the Work:

- a. If the Work is defective, or **CONTRACTOR** fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, **OWNER** may order **CONTRACTOR** to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right or **OWNER** to stop the Work shall not give rise to any duty on the part of **OWNER** to exercise this right for the benefit of **CONTRACTOR** or any surety or other party.

6. Correction or Removal of Defective Work:

- a. If required by **ENGINEER**, **CONTRACTOR** shall promptly, as directed, either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by **ENGINEER**, remove it from the site and replace it with Work that is not defective. **CONTRACTOR** shall pay all claims, costs, losses and damages caused by or resulting from such correction or removal (including but not limited to all costs of repair or replacement of work of others).

7. Correction Period:

- a. If within one (1) year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be defective, **CONTRACTOR** shall promptly, without cost to **OWNER** and in accordance with **OWNER's** written instructions: (i) correct such defective Work, or, if it has been rejected by **OWNER**, remove it from the site and replace it with Work that is not defective, and (ii) satisfactorily correct or remove and replace any damage to other Work or the work of others resulting therefrom. If **CONTRACTOR** does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage. **OWNER** may have the defective Work corrected or the rejected Work removed and replaced, and all claims, costs, losses and damages caused by or resulting from such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by **CONTRACTOR**.
- b. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications or by Written Amendment.
- c. Where defective Work (and damage to other Work resulting therefrom) has been corrected, removed or replaced under this **Article XIII paragraph 2**, the correction period hereunder with respect to such Work will be extended for an additional period of one (1) year after such correction or removal and replacement has been satisfactorily completed.

8. Acceptance of Defective Work:

- a. If, instead of requiring correction or removal and replacement of defective Work, **OWNER** (and, prior to **ENGINEER's** recommendation of final payment, also **ENGINEER**) prefers to accept it, **OWNER** may do so. **CONTRACTOR** shall pay all claims, costs, losses and damages attributable to **OWNER's** evaluation of and determination to accept such defective Work (such costs to be approved by **ENGINEER** as reasonable). If any such acceptance occurs prior to final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and **OWNER** shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, **OWNER** may make a claim therefor as provided in **Article XI**. If the acceptance occurs after such recommendation, an appropriate amount will be paid by **CONTRACTOR** to **OWNER**.

9. OWNER May Correct Defective Work:

- a. If **CONTRACTOR** fails within a reasonable time after written notice from **ENGINEER** to correct defective Work or to remove and replace rejected Work as required by **ENGINEER** in accordance with **Article XIII, paragraph 6**, or if **CONTRACTOR** fails to perform the Work in accordance with the Contract Documents, or if **CONTRACTOR** fails to comply with any other provision of the Contract Documents. **OWNER** may, after seven day's written notice to **CONTRACTOR**, correct and remedy any such deficiency. In exercising the rights and remedies under this paragraph **OWNER** shall proceed expeditiously. In connection with such corrective and remedial action, **OWNER** may exclude **CONTRACTOR** from all or part of the site, take possession of all or part of the Work, and suspend **CONTRACTOR's** services related thereto, take possession of **CONTRACTOR's** tools, appliances, construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site or for which **OWNER** has paid **CONTRACTOR** but which are stored elsewhere. **CONTRACTOR** shall allow **OWNER**, **OWNER's** representatives, agents and employees, **OWNER's** other contractors and **ENGINEER** access to the site to enable **OWNER** to exercise the rights and remedies under this paragraph. All claims, costs, losses and damages incurred or sustained

by **OWNER** in exercising such rights and remedies will be charged against **CONTRACTOR** and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and **OWNER** shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, **OWNER** may make a claim therefor as provided in **Article XI**. Such claims, costs, losses and damages will include but not be limited to all costs of repair or replacement or work of others destroyed or damaged by correction, removal or replacement of **CONTRACTOR's** defective Work. **CONTRACTOR** shall not be allowed an extension of the Contract Times (or Milestones) because of any delay in the performance of the Work attributable to the exercise by **OWNER** of **OWNER's** rights and remedies hereunder.

ARTICLE XIV - PAYMENTS TO CONTRACTOR AND COMPLETION

1. Schedule of Values:

- a. The schedule of values established as provided in **Article II, paragraph 6** will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to **ENGINEER**. Progress payments on account of Unit Price Work will be based on the number of units completed.

2. Application for Progress Payments:

- a. At least 20 days before the date established for each progress payment (but not more often than once a month), **CONTRACTOR** shall submit to **ENGINEER** for review four (4) original Saratoga County Applications and Certificates for Payment and four (4) original Saratoga County payment vouchers filled out and signed by **CONTRACTOR** covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. Unless otherwise agreed by all parties, no payment shall be made on account of materials and equipment delivered and suitably stored at the site until incorporated in the work. The **OWNER** shall retain five percent (5%) of each progress payment until substantial completion. The **OWNER** will endeavor to make payment to the **CONTRACTOR** within 30 days following the receipt of acceptable certificates of payments and Saratoga County vouchers from the **ENGINEER** provided that all bonds and insurances required by **Article V** are in effect.
- b. Upon substantial completion, **OWNER** shall pay an amount sufficient to increase total payment to **CONTRACTOR** to 100 percent (100%) of the contract amount (including all change order adjustments) less 200 percent (200%) of **ENGINEER'S** estimate of the value of work to be completed or corrected as shown on the tentative list of items to be completed or corrected attached to the Certificate of Substantial Completion.

3. CONTRACTOR's Warranty of Title:

- a. **CONTRACTOR** warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to **OWNER** no later than the time of payment free and clear of all Liens.

4. Review of Application for Progress Payment:

- a. **ENGINEER** will, within 30 days after receipt of each Application for payment either indicate in writing a recommendation for payment and present the Application to **OWNER**, or return the Application to **CONTRACTOR** indicating in writing **ENGINEER's** reasons for refusing to make payment. In the latter case, **CONTRACTOR** may make the necessary corrections and resubmit the Application. Thirty (30) days after presentation of the Application for Payment to **OWNER**, the amount recommended will become due and when due will be paid by **OWNER** to **CONTRACTOR**.

- b. **ENGINEER's** recommendation of any payment requested in an Application for Payment will constitute a representation by **ENGINEER** to **OWNER**, based on **ENGINEER's** on-site observations of the executed work as an experienced and qualified design professional and on **ENGINEER's** review of the Application for Payment and the accompanying data and schedules, that to the best of **ENGINEER's** knowledge, information and belief that:
 - i. The Work has progressed to the point indicated.
 - ii. The quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under **Article XI, paragraph 6** and to any other qualifications stated in the recommendation), and
 - iii. the conditions precedent to **CONTRACTOR's** being entitled to such payment appear to have been fulfilled in so far as it is **ENGINEER's** responsibility to observe the Work.

However, by recommending any such payment **ENGINEER** will not thereby be deemed to have represented that: (i) exhaustive or continuous on-site inspections have been made to check the quality or the quantity of the Work beyond the responsibilities specifically assigned to **ENGINEER** in the Contract Documents or (ii) that there may not be other matters or issues between the parties that might entitle **CONTRACTOR** to be paid additionally by **OWNER** or entitle **OWNER** to withhold payment to **CONTRACTOR**.

- c. **ENGINEER's** recommendation of any payment, including final payment, shall not mean that **ENGINEER** is responsible for **CONTRACTOR's** means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of **CONTRACTOR** to comply with Laws and Regulations applicable to the furnishing or performance of Work, or for any failure of **CONTRACTOR** to perform or furnish Work in accordance with the Contract Documents.
- d. **OWNER** may refuse to pay the whole or any part of any payment if;
 - i. the Work is defective, or completed Work has been damaged requiring correction or replacement,
 - ii. the Contract Price has been reduced by Written Amendment or Change Order,
 - iii. **OWNER** has been required to correct defective Work or complete Work in accordance with **Article XIII, paragraph 2** or
 - iv. **ENGINEER** has actual knowledge of the occurrence of any of the events enumerated in **Article XV, paragraph 2**.
- e. **OWNER** may refuse to make payment of the full amount recommended by **ENGINEER** because:
 - i. claims have been made against **OWNER** on account of **CONTRACTORS** performance or furnishing of the Work.
 - ii. liens have been filed in connection with the Work, except where **CONTRACTOR** has delivered a specific Bond satisfactory to **OWNER** to secure the satisfaction and discharge of such Liens.
 - iii. there are other items entitling **OWNER** to a set-off against the amount recommended, or

- iv. **OWNER** has actual knowledge of the occurrence of any of the events enumerated in **Article XV, paragraph 2**; but **OWNER** must give **CONTRACTOR** immediate written notice stating the reasons for such action and promptly pay **CONTRACTOR** the amount so withheld, or any adjustment thereto agree to by **OWNER** and **CONTRACTOR**, when **CONTRACTOR** corrects to **OWNER's** satisfaction the reasons for such action.

5. Substantial Completion:

- a. When **CONTRACTOR** considers the entire Work ready for its intended use **CONTRACTOR** shall notify **OWNER** and **ENGINEER** in writing that the entire Work is substantially complete (except for items specifically listed by **CONTRACTOR** as incomplete), and request that **ENGINEER** issue a certificate of Substantial Completion. Within a reasonable time thereafter, **OWNER** and **CONTRACTOR** and **ENGINEER** shall make an inspection of the Work to determine the status of completion. If **ENGINEER** does not consider the Work substantially complete, **ENGINEER** will notify **CONTRACTOR** in writing giving the reasons therefor. If **ENGINEER** considers the Work substantially complete, **ENGINEER** will prepare and deliver to **OWNER** a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. **OWNER** shall have seven (7) days after receipt of the tentative certificate during which to make written objection to **ENGINEER** as to any provisions of the certificate or attached list. If, after considering such objections, **ENGINEER** concludes that the Work is not substantially complete, **ENGINEER** will within 14 days after submission of the tentative certificate to **OWNER** notify **CONTRACTOR** in writing, stating the reasons therefor. If, after consideration of **OWNER's** objections, **ENGINEER** considers the Work substantially complete, **ENGINEER** will within said 14 days execute and deliver to **OWNER** and **CONTRACTOR** a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as **ENGINEER** believes justified after consideration of any objections from **OWNER**. At the time of delivery of the tentative certificate of Substantial Completion **ENGINEER** will deliver to **OWNER** and **CONTRACTOR** a written recommendation as to division of responsibilities pending final payment between **OWNER** and **CONTRACTOR** with respect to security, operation, safety, maintenance, heat, utilities, insurance and warranties and guarantees. Unless **OWNER** and **CONTRACTOR** agree otherwise in writing and so inform **ENGINEER** in writing prior to **ENGINEER's** issuing the definitive certificate of Substantial Completion. **ENGINEER's** aforesaid recommendation will be binding on **OWNER** and **CONTRACTOR** until final payment.
- b. The date of Substantial Completion will begin the date of the warranty and guarantee required by **Article XIII, paragraph 7** by **CONTRACTOR** to **OWNER** and **ENGINEER**, except that any Work that is determined to be incomplete and listed in the tentative list of items to be completed or corrected, as discussed in **Article XIV, paragraph 5a**, shall be warranted for a period of one (1) year, or that which is allowed by law, whichever is greater, from the date of final acceptance of those items by **OWNER**.

6. Partial Utilization:

- a. Use by **OWNER** at **OWNER's** option of any substantially completed part of the which: (i) has specifically been identified in the Contract Documents, or (ii) **OWNER**, **ENGINEER**, and **CONTRACTOR** agree constitutes a separately functioning and usable part of the Work that can be used by **OWNER** for its intended purpose without significant interference with **CONTRACTOR's** performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following:
- b. **OWNER** at any time may request **CONTRACTOR** in writing to permit **OWNER** to use any such part of the Work which **OWNER** believes to be ready for its intended use and substantially complete. If **CONTRACTOR** agrees that such part of the Work is substantially complete, **CONTRACTOR** will certify to **OWNER** and **ENGINEER** that such part of the Work is substantially complete and request **ENGINEER** to issue a certificate of Substantial Completion for that part of the Work. **CONTRACTOR**

at any time may notify **OWNER** and **ENGINEER** in writing that **CONTRACTOR** considers any such part of the Work ready for its intended use and substantially complete and request **ENGINEER** to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, **OWNER**, **CONTRACTOR** and **ENGINEER** shall make an inspection of that part of the Work to determine its status of completion. If **ENGINEER** does not consider that part of the Work to be substantially complete, **ENGINEER** will notify **OWNER** and **CONTRACTOR** in writing giving the reasons therefor. If **ENGINEER** considers that part of the Work to be substantially complete, the provisions of **Article XIV, paragraph 5** will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

- c. No occupancy or separate operation of part of the Work will be accomplished prior to compliance with the requirements of **Article V, paragraph 4** in respect of property insurance.

7. Final Inspection:

- a. Upon written notice from **CONTRACTOR** that the entire Work or an agreed portion thereof is complete. **ENGINEER** will make a final inspection with **OWNER** and **CONTRACTOR** and will notify **CONTRACTOR** in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. **CONTRACTOR** shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

8. Final Application for Payment:

- a. After **CONTRACTOR** has completed all corrections to the satisfaction of **ENGINEER** and delivered in accordance with the Contract Documents all maintenance and operating instructions, schedules, guarantees, Bonds, certificates or other evidence of insurance required by **Article V, paragraph 2**, certificates of inspection, marked-up record documents (as provided in **Article VI, paragraph 13**) and other documents, **CONTRACTOR** may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied (except as previously delivered) by: (i) all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by **Article V, paragraph 2**, (ii) consent of the surety, if any, to final payment, and (iii) complete and legally effective releases or waivers (satisfactory to **OWNER**) of all Liens arising out of or filed in connection with the Work. In lieu of such releases or waivers of Liens and as approved by **OWNER**, **CONTRACTOR** may furnish receipts or releases in full and an affidavit of **CONTRACTOR** that: (i) the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and (ii) all payrolls, material and equipment bills and other indebtedness connected with the Work for which **OWNER** or **OWNER's** property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, **CONTRACTOR** may furnish a Bond or other collateral satisfactory to **OWNER** to indemnify **OWNER** against any Lien.

9. Final Payment and Acceptance:

- a. If, on the basis of **ENGINEER's** observation of the Work during construction and final inspection, and **ENGINEER's** review of the final Application for Payment and accompanying documentation as required by the Contract Documents. **ENGINEER** is satisfied that the Work has been completed and **CONTRACTOR's** other obligations under the Contract Documents have been fulfilled, **ENGINEER** will within 10 days after receipt of the final Application for Payment, indicate in writing **ENGINEER's** recommendation of payment and present the Application to **OWNER** for payment. At the same time **ENGINEER** will also give written notice to **OWNER** and **CONTRACTOR** that the Work is acceptable subject to the provisions of **Article XIV, paragraph 9**. Otherwise, **ENGINEER** will return the Application to **CONTRACTOR**, indicating in writing the reasons for refusing to recommend final payment, in which case **CONTRACTOR** shall make necessary corrections and resubmit the Application. Thirty (30) days after the presentation to **OWNER** of the Application and accompanying

documentation in appropriate form and substance and with **ENGINEER's** recommendation and notice of acceptability, the amount recommended by **ENGINEER** will become due and will be paid by **OWNER** to **CONTRACTOR**.

- b. If, through no fault of **CONTRACTOR**, final completion of the Work is significantly delayed and if **ENGINEER** so confirms **OWNER** shall, upon receipt of **CONTRACTOR's** final Application for Payment, and recommendation of **ENGINEER** and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by **OWNER** for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in **Article V, paragraph 1**, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by **CONTRACTOR** to **ENGINEER** with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

10. Waiver of Claims:

- a. The making and acceptance of final payment will constitute:
- b. a waiver of all claims by **OWNER** against **CONTRACTOR**, except claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to **Article XIV, paragraph 7**, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from **CONTRACTOR's** continuing obligations under the Contract Document; and
- c. a waiver of all claims by **CONTRACTOR** against **OWNER** other than those previously made in writing and still unsettled.

ARTICLE XV - SUSPENSION OF WORK AND TERMINATION

1. Owner May Suspend Work:

- a. At any time and without cause, **OWNER** may suspend the Work or any portion thereof for a period of not more than 90 days by notice in writing to **CONTRACTOR** and **ENGINEER** which will fix the date on which Work will be resumed. **CONTRACTOR** shall resume the Work on the date so fixed. **CONTRACTOR** shall be allowed an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if **CONTRACTOR** makes an approved claim therefor as provided in **Articles XI and XII**.
- b. Notwithstanding the foregoing, if the **OWNER** is prevented or enjoined from proceeding with the Work by reason of litigation or governmental authority, the **CONTRACTOR** shall not be entitled to make or assert claim for damages or any adjustment in the Contract Price, but the time for completion of the Work shall be extended to such reasonable time as the **OWNER** may determine will compensate for the time lost by such delay.

2. OWNER May Terminate:

- a. Upon the occurrence of any one or more of the following events:
 - i. if **CONTRACTOR** abandons the Work;
 - ii. if **CONTRACTOR** assigns or sublets this Contract;

- iii. if **CONTRACTOR** persistently fails to perform the Work in accordance with the Contract Documents (including, but not limited to failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under **Article II, paragraph 6** as adjusted from time to time pursuant to **Article VI, paragraph 6**);
 - iv. if **CONTRACTOR** unnecessarily or unreasonably delays the performance of this Contract;
 - v. if **CONTRACTOR** disregards Laws or Regulations of any public body having jurisdiction;
 - vi. if **CONTRACTOR** disregards the authority of **ENGINEER**; or
 - vii. if insolvency or bankruptcy proceedings are involuntarily commenced against the **CONTRACTOR**;
or
 - viii. if **CONTRACTOR** otherwise violates in any substantial way any provisions of the Contract Documents:
- b. **OWNER** may, after giving **CONTRACTOR** (and the surety, if any,) seven (7) day's written notice and to the extent permitted by Laws and Regulations, terminate the services of **CONTRACTOR**, exclude **CONTRACTOR** from the site and take possession of the Work and of all **CONTRACTOR's** tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by **CONTRACTOR** (without liability to **CONTRACTOR** for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which **OWNER** has paid **CONTRACTOR** but which are stored elsewhere, and finish the Work as **OWNER** may deem expedient. In such case **CONTRACTOR** shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds all claims, costs, losses and damages sustained by **OWNER** arising out of or resulting from completing the Work such excess will be paid to **CONTRACTOR**. If such claims, costs, losses and damages exceed such unpaid balance, **CONTRACTOR** shall pay the difference to **OWNER**. Such claims, costs, losses and damages incurred by **OWNER** will be reviewed by **ENGINEER** as to their reasonableness and when approved by **ENGINEER**, be incorporated in a Change Order. When exercising any rights or remedies under this paragraph the **OWNER** shall not be required to obtain the lowest price.
- c. Where **CONTRACTOR's** services have been so terminated by **OWNER**, the termination will not affect any rights or remedies of **OWNER** against **CONTRACTOR** then existing or which may thereafter accrue. Any retention or payment of moneys due **CONTRACTOR** by **OWNER** will not release **CONTRACTOR** from liability.
- d. Upon seven (7) days written notice to **CONTRACTOR**, **ENGINEER**, and **OWNER** may, without cause and without prejudice to any other right or remedy of **OWNER**, elect to terminate the agreement. In such case, **CONTRACTOR** shall be paid without duplication of any items:
- i. for completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work:
 - ii. for expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses:
 - iii. for all claims, costs, losses and damages incurred in settlement of terminated contracts with Subcontractors, Suppliers and others; and
 - iv. for reasonable expenses directly attributable to termination.

- e. **CONTRACTOR** shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

3. CONTRACTOR May Stop Work or Terminate:

- a. If, through no act or fault of the **CONTRACTOR**, the Work is suspended for a period of more than 90 days by **OWNER** or under an order of court or other public authority, or **ENGINEER** fails to act on any Application for Payment within 30 days after it was submitted, **OWNER** fails for 30 days to pay **CONTRACTOR** any sum finally determined to be due, then **CONTRACTOR** may, upon seven (7) days' written notice to **OWNER** and **ENGINEER** and provided **OWNER** or **ENGINEER** do not remedy such suspension or failure within that time, terminate the Agreement and recover from **OWNER** payment on the same terms as provided in **Article XV, paragraph 2d**. In lieu of terminating the Agreement and without prejudice to any other right or remedy, if **ENGINEER** has failed to act on an Application for Payment within 30 days, or **OWNER** has failed for 30 days to pay **CONTRACTOR** any sum finally determined to be due, **CONTRACTOR** may upon seven (7) day's written notice to **OWNER** and **ENGINEER** stop the Work until payment of all such amounts due **CONTRACTOR**, including interest thereon. The provisions of the **Article XV, paragraph 5** are not intended to preclude **CONTRACTOR** from making claim under **Article XI and XII** for an increase in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to **CONTRACTOR's** stopping Work as permitted by this paragraph.

ARTICLE XVI - DISPUTE RESOLUTION

- 1. If and to the extent that **OWNER** and **CONTRACTOR** have agreed on the method and procedure for resolving disputes between them that may arise under this Agreement, such dispute resolution method and procedure, if any, shall be as set forth in Exhibit, "Dispute Resolution Agreement," to be attached hereto and made a part hereof. If no such agreement on the method and procedure for resolving such disputes has been reached, and subject to the provisions of **Article IX, paragraph 6** **OWNER** and **CONTRACTOR** may exercise such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any dispute.

ARTICLE XVII - MISCELLANEOUS

1. Giving Notice:

- a. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an office of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

2. Computation of Times:

- a. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If that last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.
- b. A calendar day of 24 hours measured from midnight to the next midnight will constitute a day.

3. Notice of Claim:

- a. Should **OWNER** or **CONTRACTOR** suffer injury or damage to person or property because of any error, omission or act of the other party or of any of the other party's employees or agents or others for whose act the other party is legally liable, claim will be made in writing to the other party within a reasonable time of the first observance of such injury or damage. The provisions of this **Article XVII, paragraph 3** shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or repose.

4. Cumulative Remedies:

- a. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto, and, in particular but without limitation, the warranties, guarantees and obligations imposed upon **CONTRACTOR** by this agreement and all of the rights and remedies available to **OWNER** and **ENGINEER** thereunder, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy to which they apply.

5. Professional Fees and Court Costs Included:

- a. Whenever reference is made to "claims, costs, losses and damages," it shall include in each case, but not be limited to, all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs.

6. Schedule of Values:

- a. The schedule of values established as provided in **Article II, paragraph 6** will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to **ENGINEER**. Progress payments on account of Unit Price Work will be based on the number of units completed.

7. Bid Cannot be Based Upon Assumptions:

- a. The **CONTRACTOR** further agrees that its bid proposal is not based upon the assumption that any specifications, traffic restrictions, scheduling or phasing/staging requirements will be waived; that an extension of Contract Completion Date will be granted; a labor dispensation will be granted; that a substitution of non-approved products, alternative or claimed functional equivalents for Specified Construction Materials and Methods will be allowed; or that any Value Engineering Proposals will be approved.

8. Forms to be used for this Project

a. The Saratoga County forms listed here shall be used for the Work of this project. These forms, if not included in the project documents, are available for review and use from Saratoga County. Bidders and contractors shall make themselves aware of the form and content of these documents. These forms shall be deemed to be included in the contract documents as though they were bound herein.

- Invitation to Bidders
- Information for Bidders
- Form of Bid
- Bid Bond
- Contractor Reference Sheet
- Contractor's Qualification Statement
- Acknowledgment of Contractor
- Acknowledgment of Officer of Saratoga County Executing Contract
- Corporate Bid Resolution
- Non-Collusive Bidding Certificate
- Certification of Compliance with Iran Divestment Act
- Certification of Compliance with Iran Divestment Act
- Sexual Harassment Certification
- Vendor Information Sheet
- Saratoga County General Conditions A201
- Owner/Contractor Agreement
- Payment Bond
- Performance Bond
- Saratoga County Application and Certificate for Payment
- Saratoga County Voucher
- Construction Change Directive
- Certificate of Substantial Completion
- Contractor's Affidavit of Payments of Debts and Claims
- Affidavit of Payments to Subcontractors and Suppliers
- Consent of Surety to Reduction in/or Partial Release of Retainage
- Consent of Surety Company to Final Payment
- Contractor's Affidavit of Release of Liens
- Waiver of Liens – Subcontractor/Supplier
- Waiver of Liens – Contractor
- General Release-Contractor
- Indemnity and Insurance Agreement
- Release of Lien

END OF GENERAL CONDITIONS



SUPPLEMENTAL GENERAL CONDITIONS

TO THE

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION A201

FAA REQUIRED CONTRACT PROVISIONS

1. ACCESS TO RECORDS AND REPORTS

The Contractor must maintain an acceptable cost accounting system. The Contractor agrees to provide the Owner, the Federal Aviation Administration and the Comptroller General of the United States or any of their duly authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The Contractor agrees to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters are closed.

2. AFFIRMATIVE ACTION

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables

Goals for minority participation for each trade:	3.2%
Goals for female participation in each trade:	6.9%

These goals are applicable to all of the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a) and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs (OFCCP) within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this notice and in the contract resulting from this solicitation, the "covered area" is **Saratoga County, New York**.

3. BREACH OF CONTRACT TERMS

Any violation or breach of terms of this contract on the part of the Contractor or its subcontractors may result in the suspension or termination of this contract or such other action that may be necessary to enforce the rights of the parties of this agreement.

Owner will provide Contractor written notice that describes the nature of the breach and corrective actions the Contractor must undertake in order to avoid termination of the contract. Owner reserves the right to withhold payments to Contractor until such time the Contractor corrects the breach or the Owner elects to terminate the contract. The Owner's notice will identify a specific date by which the Contractor must correct the breach. Owner may proceed with termination of the contract if the Contractor fails to correct the breach by the deadline indicated in the Owner's notice.

The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder are in addition to, and not a limitation of, any duties, obligations, rights and remedies otherwise imposed or available by law.

4. BUY AMERICAN PREFERENCE

Buy American Conformance List. The FAA Office of Airports maintains a listing of equipment that has received a nationwide waiver from the Buy American Preference requirements or that fully meet the Buy American requirements. The Nationwide Buy American Waiver List is available online at www.faa.gov/airports/aip/buy_american/. Products listed on the Buy American Conformance list do not require additional submittal of domestic content information under a project specific Buy American Preference waiver.

The Contractor must meet the Buy American Preference requirements of 49 USC § 50101 for all AIP funded projects that require steel or manufactured goods. The Buy America requirements flow down from the sponsor to first tier contractors, who are responsible for ensuring that lower tier contractors and subcontractors are also in compliance.

Note: The Buy American Preference does not apply to equipment a contractor uses as a tool of its trade and which does not remain as part of the project.

The Contractor agrees to comply with 49 USC § 50101, which provides that Federal funds may not be obligated unless all steel and manufactured goods used in AIP funded projects are produced in the United States, unless the Federal Aviation Administration has issued a waiver for the product; the product is listed as an Excepted Article, Material Or Supply in Federal Acquisition Regulation subpart 25.108; or is included in the FAA Nationwide Buy American Waivers Issued list.

A bidder or offeror must complete and submit the Buy America certification included herein with their bid or offer. The Owner will reject as nonresponsive any bid or offer that does not include a completed Certificate of Buy American Compliance.

5. GENERAL CIVIL RIGHTS PROVISIONS

The Contractor agrees to comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision binds the Contractor and subcontractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

6. CIVIL RIGHT ACT OF 1964 TITLE VI PROVISIONS

Saratoga County, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 USC §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders or offerors that it will affirmatively ensure that any contract entered into pursuant to this advertisement, 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.

Compliance with Nondiscrimination Requirements:

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor”), agrees as follows:

1. **Compliance with Regulations:** The Contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Nondiscrimination:** The Contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
3. **Solicitations for Subcontracts, including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Contractor of the contractor’s obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.
4. **Information and Reports:** The Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the Contractor will so certify to the sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a Contractor’s noncompliance with the non-discrimination provisions of this contract, the sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:
 - a. Withholding payments to the Contractor under the contract until the Contractor complies; and/or
 - b. Cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The Contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations, and directives issued pursuant thereto. The Contractor will take action with respect to any subcontract or procurement as the sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the Contractor may request the

sponsor to enter into any litigation to protect the interests of the sponsor. In addition, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

Title VI List of Pertinent Nondiscrimination Acts and Authorities

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 USC § 2000d *et seq.*, 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination in Federally-assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 USC § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973 (29 USC § 794 *et seq.*), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27;
- The Age Discrimination Act of 1975, as amended (42 USC § 6101 *et seq.*) (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982 (49 USC § 471, Section 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987 (PL 100-209) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 USC §§ 12131 – 12189) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration’s Nondiscrimination statute (49 USC § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC 1681 *et seq.*).

7. CLEAN AIR AND WATER POLLUTION CONTROL

Contractor agrees to comply with all applicable standards, orders, and regulations issued pursuant to the Clean Air Act (42 USC § 740-7671q) and the Federal Water Pollution Control Act as amended (33 USC § 1251-

1387). The Contractor agrees to report any violation to the Owner immediately upon discovery. The Owner assumes responsibility for notifying the Environmental Protection Agency (EPA) and the Federal Aviation Administration.

Contractor must include this requirement in all subcontracts that exceeds \$150,000.

8. CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS

1. Overtime Requirements.

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic, including watchmen and guards, in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; Liability for Unpaid Wages; Liquidated Damages.

In the event of any violation of the clause set forth in paragraph (1) of this clause, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this clause, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this clause.

3. Withholding for Unpaid Wages and Liquidated Damages.

The Federal Aviation Administration (FAA) or the Owner shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this clause.

4. Subcontractors.

The Contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs (1) through (4) and also a clause requiring the subcontractor to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this clause.

9. COPELAND “ANTI-KICKBACK” ACT

Contractor must comply with the requirements of the Copeland “Anti-Kickback” Act (18 USC 874 and 40 USC 3145), as supplemented by Department of Labor regulation 29 CFR part 3. Contractor and subcontractors are prohibited from inducing, by any means, any person employed on the project to give up any part of the compensation to which the employee is entitled. The Contractor and each Subcontractor must submit to the Owner, a weekly statement on the wages paid to each employee performing on covered work during the prior week. Owner must report any violations of the Act to the Federal Aviation Administration.

10. DAVIS-BACON REQUIREMENTS

1. Minimum Wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalent thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided* that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can easily be seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination;

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the Contractor, the laborers, or mechanics to be employed in the classification, or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a

determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii) (B) or (C) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program: *Provided* that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding.

The Federal Aviation Administration or the sponsor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of work, all or part of the wages required by the contract, the Federal Aviation Administration may, after written notice to the Contractor, Sponsor, Applicant, or Owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and Basic Records.

(i) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 1(b)(2)(B) of the Davis-Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records that show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and that show the costs anticipated or the actual costs incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit the payrolls to the applicant, Sponsor, or Owner, as the case may be, for transmission to the Federal Aviation Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls

shall only need to include an individually identifying number for each employee (*e.g.* the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at www.dol.gov/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker and shall provide them upon request to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit them to the applicant, sponsor, or Owner, as the case may be, for transmission to the Federal Aviation Administration, the Contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, Sponsor, or Owner).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) The payroll for the payroll period contains the information required to be provided under 29 CFR § 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR § 5.5 (a)(3)(i), and that such information is correct and complete;

(2) Each laborer and mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations 29 CFR Part 3;

(3) Each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The Contractor or subcontractor shall make the records required under paragraph (3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the sponsor, the Federal Aviation Administration, or the Department of Labor and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the Contractor, Sponsor, applicant, or Owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and Trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for

probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination that provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate that is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal Employment Opportunity. The utilization of apprentices, trainees, and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance with Copeland Act Requirements.

The Contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

6. Subcontracts.

The Contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR Part 5.5(a)(1) through (10) and such other clauses as the Federal Aviation Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR Part 5.5.

7. Contract Termination: Debarment.

A breach of the contract clauses in paragraph 1 through 10 of this section may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act Requirements.

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes Concerning Labor Standards.

Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of Eligibility.

(i) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 USC 1001.

11. DEBARMENT AND SUSPENSION

Bidder or Offeror Certification

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

Lower Tier Contract Certification

The successful bidder, by administering each lower tier subcontract that exceeds \$25,000 as a "covered transaction", must verify each lower tier participant of a "covered transaction" under the project is not presently debarred or otherwise disqualified from participation in this federally assisted project. The successful bidder will accomplish this by:

1. Checking the System for Award Management at website: <http://www.sam.gov>.
2. Collecting a certification statement similar to the Certification of Offerer /Bidder Regarding Debarment, above.
3. Inserting a clause or condition in the covered transaction with the lower tier contract.

If the Federal Aviation Administration later determines that a lower tier participant failed to disclose to a higher tier participant that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedies, including suspension and debarment of the non-compliant participant.

12. DISADVANTAGED BUSINESS ENTERPRISE

Information Submitted as a matter of bidder responsiveness:

The Owner's award of this contract is conditioned upon Bidder or Offeror satisfying the good faith effort requirements of 49 CFR §26.53.

As a condition of bid responsiveness, the Bidder or Offeror must submit the following information with its proposal on the forms provided herein:

- 1) The names and addresses of Disadvantaged Business Enterprise (DBE) firms that will participate in the contract;
- 2) A description of the work that each DBE firm will perform;
- 3) The dollar amount of the participation of each DBE firm listed under (1)
- 4) Written statement from Bidder or Offeror that attests their commitment to use the DBE firm(s) listed under (1) to meet the Owner's project goal; and
- 5) If Bidder or Offeror cannot meet the advertised project DBE goal, evidence of good faith efforts undertaken by the Bidder or Offeror as described in appendix A to 49 CFR part 26.

The Contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of Department of Transportation-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the Owner deems appropriate, which may include, but is not limited to:

- 1) Withholding monthly progress payments;
- 2) Assessing sanctions;
- 3) Liquidated damages; and/or
- 4) Disqualifying the Contractor from future bidding as non-responsible.

Prompt Payment – The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than thirty days from the receipt of each payment the prime contractor receives from the Sponsor. The prime contractor agrees further to return retainage payments to each subcontractor within thirty days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the Sponsor. This clause applies to both DBE and non-DBE subcontractors.

13. DISTRACTED DRIVING - TEXTING WHEN DRIVING

In accordance with Executive Order 13513, "Federal Leadership on Reducing Text Messaging While Driving", (10/1/2009) and DOT Order 3902.10, "Text Messaging While Driving", (12/30/2009), the Federal Aviation Administration encourages recipients of Federal grant funds to adopt and enforce safety policies that

decrease crashes by distracted drivers, including policies to ban text messaging while driving when performing work related to a grant or subgrant.

In support of this initiative, the Owner encourages the Contractor to promote policies and initiatives for its employees and other work personnel that decrease crashes by distracted drivers, including policies that ban text messaging while driving motor vehicles while performing work activities associated with the project. The Contractor must include the substance of this clause in all sub-tier contracts exceeding \$3,500 that involve driving a motor vehicle in performance of work activities associated with the project.

14. ENERGY CONSERVATION REQUIREMENTS

Contractor and Subcontractor agree to comply with mandatory standards and policies relating to energy efficiency as contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 USC 6201 *et seq.*).

15. EQUAL EMPLOYEMENT OPPORTUNITY (EEO)

During the performance of this contract, the Contractor agrees as follows:

- (1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identify, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff, or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- (2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.
- (3) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (4) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (5) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (6) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246

of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: *Provided, however,* that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS

1. As used in these specifications:

- a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
- b. "Director" means Director, Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, or any person to whom the Director delegates authority;
- c. "Employer identification number" means the Federal social security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941;
- d. "Minority" includes:
 - (1) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (2) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin regardless of race);
 - (3) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (4) American Indian or Alaskan native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR part 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors shall be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved plan is individually required to comply with its obligations under the EEO clause and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractors or subcontractors toward a goal in an approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in a geographical area where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement nor the failure by a union with whom the Contractor has a collective bargaining agreement to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees shall be employed by the Contractor during the training period and the Contractor shall have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees shall be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source, or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or female sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions, including specific review of these items, with onsite supervisory personnel such as superintendents, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other contractors and subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students; and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations, such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer, and vacation employment to minority and female youth both on the site and in other areas of a contractor's workforce.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel, for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are non-segregated except that separate or single user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative action obligations (7a through 7p). The efforts of a contractor association, joint contractor union, contractor community, or other similar groups of which the Contractor is a member and participant may be asserted as fulfilling any one or more of its obligations under 7a through 7p of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive

impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, if the particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally), the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized.

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination, and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR part 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government, and to keep records. Records shall at least include for each employee, the name, address, telephone number, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g. those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

16. FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part-time workers.

The Contractor has full responsibility to monitor compliance to the referenced statute or regulation. The Contractor must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

17. LOBBYING AND INFLUENCING FEDERAL EMPLOYEES

The Bidder or Offeror certifies by signing and submitting this bid or proposal, 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 Bidder or Offeror, 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 Form to Report Lobbying,” 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 sub-recipients shall certify and disclose accordingly.

This certification is a material representation 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.

18. PROHIBITION of SEGREGATED FACILITIES

(a) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Employment Opportunity clause in this contract.

(b) “Segregated facilities,” as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

(c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Employment Opportunity clause of this contract.

19. OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. The employer must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The employer retains full responsibility to monitor its compliance and their subcontractor's compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (20 CFR Part 1910). The employer must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

20. PROCUREMENT OF RECOVERED MATERIALS

Contractor and subcontractor agree to comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, and the regulatory provisions of 40 CFR Part 247. In the performance of this contract and to the extent practicable, the Contractor and subcontractors are to use products containing the highest percentage of recovered materials for items designated by the Environmental Protection Agency (EPA) under 40 CFR Part 247 whenever:

- 1) The contract requires procurement of \$10,000 or more of a designated item during the fiscal year; or
- 2) The contractor has procured \$10,000 or more of a designated item using Federal funding during the previous fiscal year.

The list of EPA-designated items is available at www.epa.gov/smm/comprehensive-procurement-guidelines-construction-products.

Section 6002(c) establishes exceptions to the preference for recovery of EPA-designated products if the contractor can demonstrate the item is:

- a) Not reasonably available within a timeframe providing for compliance with the contract performance schedule;
- b) Fails to meet reasonable contract performance requirements; or
- c) Is only available at an unreasonable price.

21. RIGHT TO INVENTIONS

Contracts or agreements that include the performance of experimental, developmental, or research work must provide for the rights of the Federal Government and the Owner in any resulting invention as established by 37 CFR part 401, Rights to Inventions Made by Non-profit Organizations and Small Business Firms under Government Grants, Contracts, and Cooperative Agreements. This contract incorporates by reference the patent and inventions rights as specified within 37 CFR §401.14. Contractor must include this requirement in all sub-tier contracts involving experimental, developmental, or research work.

22. SEISMIC SAFETY

The Contractor agrees to ensure that all work performed under this contract, including work performed by subcontractors, conforms to a building code standard that provides a level of seismic safety substantially equivalent to standards established by the National Earthquake Hazards Reduction Program (NEHRP). Local building codes that model their code after the current version of the International Building Code (IBC) meet the NEHRP equivalency level for seismic safety.

23. TAX DELINQUENCY AND FELONY CONVICTIONS

The applicant must certify that it is not tax delinquent nor has any felony conviction. The applicant agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification in all lower tier subcontracts.

If an applicant responds in the affirmative to either of the above representations, the applicant is ineligible to receive an award unless the sponsor has received notification from the agency suspension and debarment official (SDO) that the SDO has considered suspension or debarment and determined that further action is not required to protect the Government's interests. The applicant therefore must provide information to the owner about its tax liability or conviction to the Owner, who will then notify the FAA Airports District Office, which will then notify the agency's SDO to facilitate completion of the required considerations before award decisions are made.

Term Definitions

Felony conviction: Felony conviction means a conviction within the preceding twentyfour (24) months of a felony criminal violation under any Federal law and includes conviction of an offense defined in a section of the U.S. code that specifically classifies the offense as a felony and conviction of an offense that is classified as a felony under 18 U.S.C. § 3559.

Tax Delinquency: A tax delinquency is any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

24. TERMINATION OF CONTRACT

TERMINATION FOR CONVENIENCE (CONSTRUCTION & EQUIPMENT CONTRACTS)

The Owner may terminate this contract in whole or in part at any time by providing written notice to the Contractor. Such action may be without cause and without prejudice to any other right or remedy of Owner. Upon receipt of a written notice of termination, except as explicitly directed by the Owner, the Contractor shall immediately proceed with the following obligations regardless of any delay in determining or adjusting amounts due under this clause:

1. Contractor must immediately discontinue work as specified in the written notice.
2. Terminate all subcontracts to the extent they relate to the work terminated under the notice.
3. Discontinue orders for materials and services except as directed by the written notice.
4. Deliver to the Owner all fabricated and partially fabricated parts, completed and partially completed work, supplies, equipment and materials acquired prior to termination of the work, and as directed in the written notice.
5. Complete performance of the work not terminated by the notice.
6. Take action as directed by the Owner to protect and preserve property and work related to this contract that Owner will take possession.

Owner agrees to pay Contractor for:

- 1) completed and acceptable work executed in accordance with the contract documents prior to the effective date of termination;

- 2) documented expenses sustained prior to the effective date of termination in performing work and furnishing labor, materials, or equipment as required by the contract documents in connection with uncompleted work;
- 3) reasonable and substantiated claims, costs, and damages incurred in settlement of terminated contracts with Subcontractors and Suppliers; and
- 4) reasonable and substantiated expenses to the Contractor directly attributable to Owner's termination action.

Owner will not pay Contractor for loss of anticipated profits or revenue or other economic loss arising out of or resulting from the Owner's termination action.

The rights and remedies this clause provides are in addition to any other rights and remedies provided by law or under this contract.

TERMINATION FOR DEFAULT

Section 80-09 of FAA Advisory Circular 150/5370-10 establishes conditions, rights, and remedies associated with Owner termination of this contract due to default of the Contractor.

25. TRADE RESTRICTION CERTIFICATION

By submission of an offer, the Offeror certifies that with respect to this solicitation and any resultant contract, the Offeror –

- 1) is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms as published by the Office of the United States Trade Representative (USTR);
- 2) has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country included on the list of countries that discriminate against U.S. firms as published by the USTR; and
- 3) has not entered into any subcontract for any product to be used on the Federal project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18 USC Section 1001.

The Offeror/Contractor must provide immediate written notice to the Owner if the Offeror/Contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The Contractor must require subcontractors provide immediate written notice to the Contractor if at any time it learns that its certification was erroneous by reason of changed circumstances.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to an Offeror or subcontractor:

- 1) who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR or
- 2) whose subcontractors are owned or controlled by one or more citizens or nationals of a foreign country on such USTR list or
- 3) who incorporates in the public works project any product of a foreign country on such USTR list.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

The Offeror agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in all lower tier subcontracts. The Contractor may rely on the certification of a prospective subcontractor that it is not a firm from a foreign country included on the list of countries that discriminate against U.S. firms as published by USTR, unless the Offeror has knowledge that the certification is erroneous.

This certification is a material representation of fact upon which reliance was placed when making an award. If it is later determined that the Contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration (FAA) may direct through the Owner cancellation of the contract or subcontract for default at no cost to the Owner or the FAA.

26. VETERAN'S PREFERENCE

In the employment of labor (excluding executive, administrative, and supervisory positions), the Contractor and all sub-tier contractors must give preference to covered veterans as defined within Title 49 United States Code Section 47112. Covered veterans include Vietnam-era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns (as defined by 15 USC 632) owned and controlled by disabled veterans. This preference only applies when there are covered veterans readily available and qualified to perform the work to which the employment relates.

FAA GENERAL CONTRACT PROVISION

Part 1 – General Contract Provisions

SECTION 10 DEFINITION OF TERMS

When the following terms are used in these specifications, in the contract, or in any documents or other instruments pertaining to construction where these specifications govern, the intent and meaning shall be defined as follows:

Paragraph Number	Term	Definition
10-01	AASHTO	The American Association of State Highway and Transportation Officials.
10-02	Access Road	The right-of-way, the roadway and all improvements constructed thereon connecting the airport to a public roadway.
10-03	Advertisement	A public announcement, as required by local law, inviting bids for work to be performed and materials to be furnished.
10-04	Airport	Airport means an area of land or water which is used or intended to be used for the landing and takeoff of aircraft; an appurtenant area used or intended to be used for airport buildings or other airport facilities or rights of way; airport buildings and facilities located in any of these areas, and a heliport.
10-05	Airport Improvement Program (AIP)	A grant-in-aid program, administered by the Federal Aviation Administration (FAA).
10-06	Air Operations Area (AOA)	The term air operations area (AOA) shall mean any area of the airport used or intended to be used for the landing, takeoff, or surface maneuvering of aircraft. An air operation area shall include such paved or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runway, taxiway, or apron.
10-07	Apron	Area where aircraft are parked, unloaded or loaded, fueled and/or serviced.
10-08	ASTM International (ASTM)	Formerly known as the American Society for Testing and Materials (ASTM).
10-09	Award	The Owner's notice to the successful bidder of the acceptance of the submitted bid.
10-10	Bidder	Any individual, partnership, firm, or corporation, acting directly or through a duly authorized representative, who submits a proposal for the work contemplated.
10-11	Building Area	An area on the airport to be used, considered, or intended to be used for airport buildings or other airport facilities or rights-of-way together with all airport buildings and facilities located thereon.
10-12	Calendar Day	Every day shown on the calendar.
10-13	Certificate of Analysis (COA)	The COA is the manufacturer's Certificate of Compliance (COC) including all applicable test results required by the specifications.

Paragraph Number	Term	Definition
10-14	Certificate of Compliance (COC)	The manufacturer's certification stating that materials or assemblies furnished fully comply with the requirements of the contract. The certificate shall be signed by the manufacturer's authorized representative.
10-15	Change Order	A written order to the Contractor covering changes in the plans, specifications, or proposal quantities and establishing the basis of payment and contract time adjustment, if any, for work within the scope of the contract and necessary to complete the project.
10-16	Contract	A written agreement between the Owner and the Contractor that establishes the obligations of the parties including but not limited to performance of work, furnishing of labor, equipment and materials and the basis of payment. The awarded contract includes but may not be limited to: Advertisement, Contract form, Proposal, Performance bond, payment bond, General provisions, certifications and representations, Technical Specifications, Plans, Supplemental Provisions, standards incorporated by reference and issued addenda.
10-17	Contract Item (Pay Item)	A specific unit of work for which a price is provided in the contract.
10-18	Contract Time	The number of calendar days or working days, stated in the proposal, allowed for completion of the contract, including authorized time extensions. If a calendar date of completion is stated in the proposal, in lieu of a number of calendar or working days, the contract shall be completed by that date.
10-19	Contractor	The individual, partnership, firm, or corporation primarily liable for the acceptable performance of the work contracted and for the payment of all legal debts pertaining to the work who acts directly or through lawful agents or employees to complete the contract work.
10-20	Contractors Quality Control (QC) Facilities	The Contractor's QC facilities in accordance with the Contractor Quality Control Program (CQCP).
10-21	Contractor Quality Control Program (CQCP)	Details the methods and procedures that will be taken to assure that all materials and completed construction required by the contract conform to contract plans, technical specifications and other requirements, whether manufactured by the Contractor, or procured from subcontractors or vendors.
10-22	Control Strip	A demonstration by the Contractor that the materials, equipment, and construction processes results in a product meeting the requirements of the specification.
10-23	Construction Safety and Phasing Plan (CSPP)	The overall plan for safety and phasing of a construction project developed by the airport operator, or developed by the airport operator's consultant and approved by the airport operator. It is included in the invitation for bids and becomes part of the project specifications.
10-24	Drainage System	The system of pipes, ditches, and structures by which surface

Paragraph Number	Term	Definition
		or subsurface waters are collected and conducted from the airport area.
10-25	Engineer	The individual, partnership, firm, or corporation duly authorized by the Owner to be responsible for engineering, inspection, and/or observation of the contract work and acting directly or through an authorized representative.
10-26	Equipment	All machinery, together with the necessary supplies for upkeep and maintenance; and all tools and apparatus necessary for the proper construction and acceptable completion of the work.
10-27	Extra Work	An item of work not provided for in the awarded contract as previously modified by change order or supplemental agreement, but which is found by the Owner's Engineer or Resident Project Representative (RPR) to be necessary to complete the work within the intended scope of the contract as previously modified.
10-28	FAA	The Federal Aviation Administration. When used to designate a person, FAA shall mean the Administrator or their duly authorized representative.
10-29	Federal Specifications	The federal specifications and standards, commercial item descriptions, and supplements, amendments, and indices prepared and issued by the General Services Administration.
10-30	Force Account	<p>a. Contract Force Account - A method of payment that addresses extra work performed by the Contractor on a time and material basis.</p> <p>b. Owner Force Account - Work performed for the project by the Owner's employees.</p>
10-31	Intention of Terms	<p>Whenever, in these specifications or on the plans, the words "directed," "required," "permitted," "ordered," "designated," "prescribed," or words of like import are used, it shall be understood that the direction, requirement, permission, order, designation, or prescription of the Engineer and/or Resident Project Representative (RPR) is intended; and similarly, the words "approved," "acceptable," "satisfactory," or words of like import, shall mean approved by, or acceptable to, or satisfactory to the Engineer and/or RPR, subject in each case to the final determination of the Owner.</p> <p>Any reference to a specific requirement of a numbered paragraph of the contract specifications or a cited standard shall be interpreted to include all general requirements of the entire section, specification item, or cited standard that may be pertinent to such specific reference.</p>
10-32	Lighting	A system of fixtures providing or controlling the light sources used on or near the airport or within the airport buildings. The field lighting includes all luminous signals, markers, floodlights, and illuminating devices used on or

Paragraph Number	Term	Definition
		near the airport or to aid in the operation of aircraft landing at, taking off from, or taxiing on the airport surface.
10-33	Major and Minor Contract Items	A major contract item shall be any item that is listed in the proposal, the total cost of which is equal to or greater than 20% of the total amount of the award contract. All other items shall be considered minor contract items.
10-34	Materials	Any substance specified for use in the construction of the contract work.
10-35	Modification of Standards (MOS)	Any deviation from standard specifications applicable to material and construction methods in accordance with FAA Order 5300.1.
10-36	Notice to Proceed (NTP)	A written notice to the Contractor to begin the actual contract work on a previously agreed to date. If applicable, the Notice to Proceed shall state the date on which the contract time begins.
10-37	Owner	The term "Owner" shall mean the party of the first part or the contracting agency signatory to the contract. Where the term "Owner" is capitalized in this document, it shall mean airport Sponsor only. The Owner for this project is Saratoga County .
10-38	Passenger Facility Charge (PFC)	Per 14 Code of Federal Regulations (CFR) Part 158 and 49 United States Code (USC) § 40117, a PFC is a charge imposed by a public agency on passengers enplaned at a commercial service airport it controls.
10-39	Pavement Structure	The combined surface course, base course(s), and subbase course(s), if any, considered as a single unit.
10-40	Payment bond	The approved form of security furnished by the Contractor and their own surety as a guaranty that the Contractor will pay in full all bills and accounts for materials and labor used in the construction of the work.
10-41	Performance bond	The approved form of security furnished by the Contractor and their own surety as a guaranty that the Contractor will complete the work in accordance with the terms of the contract.
10-42	Plans	The official drawings or exact reproductions which show the location, character, dimensions and details of the airport and the work to be done and which are to be considered as a part of the contract, supplementary to the specifications. Plans may also be referred to as 'contract drawings.'
10-43	Project	The agreed scope of work for accomplishing specific airport development with respect to a particular airport.
10-44	Proposal	The written offer of the bidder (when submitted on the approved proposal form) to perform the contemplated work and furnish the necessary materials in accordance with the provisions of the plans and specifications.
10-45	Proposal guaranty	The security furnished with a proposal to guarantee that the bidder will enter into a contract if their own proposal is accepted by the Owner.

Paragraph Number	Term	Definition
10-46	Quality Assurance (QA)	Owner's responsibility to assure that construction work completed complies with specifications for payment.
10-47	Quality Control (QC)	Contractor's responsibility to control material(s) and construction processes to complete construction in accordance with project specifications.
10-48	Quality Assurance (QA) Inspector	An authorized representative of the Engineer and/or Resident Project Representative (RPR) assigned to make all necessary inspections, observations, tests, and/or observation of tests of the work performed or being performed, or of the materials furnished or being furnished by the Contractor.
10-49	Quality Assurance (QA) Laboratory	The official quality assurance testing laboratories of the Owner or such other laboratories as may be designated by the Engineer or RPR. May also be referred to as Engineer's, Owner's, or QA Laboratory.
10-50	Resident Project Representative (RPR)	The individual, partnership, firm, or corporation duly authorized by the Owner to be responsible for all necessary inspections, observations, tests, and/or observations of tests of the contract work performed or being performed, or of the materials furnished or being furnished by the Contractor, and acting directly or through an authorized representative.
10-51	Runway	The area on the airport prepared for the landing and takeoff of aircraft.
10-52	Runway Safety Area (RSA)	A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to aircraft. See the construction safety and phasing plan (CSPP) for limits of the RSA.
10-53	Safety Plan Compliance Document (SPCD)	Details how the Contractor will comply with the CSPP.
10-54	Specifications	A part of the contract containing the written directions and requirements for completing the contract work. Standards for specifying materials or testing which are cited in the contract specifications by reference shall have the same force and effect as if included in the contract physically.
10-55	Sponsor	A Sponsor is defined in 49 USC § 47102(24) as a public agency that submits to the FAA for an AIP grant; or a private Owner of a public-use airport that submits to the FAA an application for an AIP grant for the airport.
10-56	Structures	Airport facilities such as bridges; culverts; catch basins, inlets, retaining walls, cribbing; storm and sanitary sewer lines; water lines; underdrains; electrical ducts, manholes, handholes, lighting fixtures and bases; transformers; navigational aids; buildings; vaults; and, other manmade features of the airport that may be encountered in the work and not otherwise classified herein.
10-57	Subgrade	The soil that forms the pavement foundation.
10-58	Superintendent	The Contractor's executive representative who is present on the work during progress, authorized to receive and fulfill instructions from the RPR, and who shall supervise and

Paragraph Number	Term	Definition
		direct the construction.
10-59	Supplemental Agreement	A written agreement between the Contractor and the Owner that establishes the basis of payment and contract time adjustment, if any, for the work affected by the supplemental agreement. A supplemental agreement is required if: (1) in scope work would increase or decrease the total amount of the awarded contract by more than 25%; (2) in scope work would increase or decrease the total of any major contract item by more than 25%; (3) work that is not within the scope of the originally awarded contract; or (4) adding or deleting of a major contract item.
10-60	Surety	The corporation, partnership, or individual, other than the Contractor, executing payment or performance bonds that are furnished to the Owner by the Contractor.
10-61	Taxilane	A taxiway designed for low speed movement of aircraft between aircraft parking areas and terminal areas.
10-62	Taxiway	The portion of the air operations area of an airport that has been designated by competent airport authority for movement of aircraft to and from the airport's runways, aircraft parking areas, and terminal areas.
10-63	Taxiway/Taxilane Safety Area (TSA)	A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an aircraft. See the construction safety and phasing plan (CSPP) for limits of the TSA.
10-64	Work	The furnishing of all labor, materials, tools, equipment, and incidentals necessary or convenient to the Contractor's performance of all duties and obligations imposed by the contract, plans, and specifications.
10-65	Working day	A working day shall be any day other than a legal holiday, Saturday, or Sunday on which the normal working forces of the Contractor may proceed with regular work for at least six (6) hours toward completion of the contract. When work is suspended for causes beyond the Contractor's control, it will not be counted as a working day. Saturdays, Sundays and holidays on which the Contractor's forces engage in regular work will be considered as working days.
10-66	Owner Defined terms	None

END OF SECTION 10

SECTION 20 PROPOSAL REQUIREMENTS AND CONDITIONS

20-01 Advertisement (Notice to Bidders). See Invitation to Bidders.

20-02 Qualification of bidders. Each bidder shall submit evidence of competency and evidence of financial responsibility to perform the work to the Owner at the time of bid opening.

Evidence of competency, unless otherwise specified, shall consist of statements covering the bidder's past experience on similar work, and a list of equipment and a list of key personnel that would be available for the work.

Each bidder shall furnish the Owner satisfactory evidence of their financial responsibility. Evidence of financial responsibility, unless otherwise specified, shall consist of a confidential statement or report of the bidder's financial resources and liabilities as of the last calendar year or the bidder's last fiscal year. Such statements or reports shall be certified by a public accountant. At the time of submitting such financial statements or reports, the bidder shall further certify whether their financial responsibility is approximately the same as stated or reported by the public accountant. If the bidder's financial responsibility has changed, the bidder shall qualify the public accountant's statement or report to reflect the bidder's true financial condition at the time such qualified statement or report is submitted to the Owner.

Unless otherwise specified, a bidder may submit evidence that they are prequalified with the State Highway Division and are on the current "bidder's list" of the state in which the proposed work is located. Evidence of State Highway Division prequalification may be submitted as evidence of financial responsibility in lieu of the certified statements or reports specified above.

Each bidder shall submit "evidence of competency" and "evidence of financial responsibility" to the Owner at the time of bid opening.

20-03 Contents of proposal forms. The Owner's proposal forms state the location and description of the proposed construction; the place, date, and time of opening of the proposals; and the estimated quantities of the various items of work to be performed and materials to be furnished for which unit bid prices are asked. The proposal form states the time in which the work must be completed, and the amount of the proposal guaranty that must accompany the proposal. The Owner will accept only those Proposals properly executed on physical forms or electronic forms provided by the Owner. Bidder actions that may cause the Owner to deem a proposal irregular are given in paragraph 20-09 *Irregular proposals*.

Mobilization is limited to 5 percent of the total project cost.

No prebid conference is required on this project. Prospective bidders are advised to visit the site and become familiar with the existing conditions.

20-04 Issuance of proposal forms. The Owner reserves the right to refuse to issue a proposal form to a prospective bidder if the bidder is in default for any of the following reasons:

a. Failure to comply with any prequalification regulations of the Owner, if such regulations are cited, or otherwise included, in the proposal as a requirement for bidding.

b. Failure to pay, or satisfactorily settle, all bills due for labor and materials on former contracts in force with the Owner at the time the Owner issues the proposal to a prospective bidder.

c. Documented record of Contractor default under previous contracts with the Owner.

d. Documented record of unsatisfactory work on previous contracts with the Owner.

20-05 Interpretation of estimated proposal quantities. An estimate of quantities of work to be done and materials to be furnished under these specifications is given in the proposal. It is the result of careful calculations and is believed to be correct. It is given only as a basis for comparison of proposals and the award of the contract. The Owner does not expressly, or by implication, agree that the actual quantities involved will correspond exactly therewith; nor shall the bidder plead misunderstanding or deception because of such estimates of quantities, or of the character, location, or other conditions pertaining to the

work. Payment to the Contractor will be made only for the actual quantities of work performed or materials furnished in accordance with the plans and specifications. It is understood that the quantities may be increased or decreased as provided in the Section 40, paragraph 40-02, Alteration of Work and Quantities, without in any way invalidating the unit bid prices.

20-06 Examination of plans, specifications, and site. The bidder is expected to carefully examine the site of the proposed work, the proposal, plans, specifications, and contract forms. Bidders shall satisfy themselves to the character, quality, and quantities of work to be performed, materials to be furnished, and to the requirements of the proposed contract. The submission of a proposal shall be prima facie evidence that the bidder has made such examination and is satisfied to the conditions to be encountered in performing the work and the requirements of the proposed contract, plans, and specifications.

Boring logs and other records of subsurface investigations and tests are available for inspection of bidders. It is understood and agreed that such subsurface information, whether included in the plans, specifications, or otherwise made available to the bidder, was obtained and is intended for the Owner's design and estimating purposes only. Such information has been made available for the convenience of all bidders. It is further understood and agreed that each bidder is solely responsible for all assumptions, deductions, or conclusions which the bidder may make or obtain from their own examination of the boring logs and other records of subsurface investigations and tests that are furnished by the Owner.

20-07 Preparation of proposal. The bidder shall submit their proposal on the forms furnished by the Owner. All blank spaces in the proposal forms, unless explicitly stated otherwise, must be correctly filled in where indicated for each and every item for which a quantity is given. The bidder shall state the price (written in ink or typed) both in words and numerals which they propose for each pay item furnished in the proposal. In case of conflict between words and numerals, the words, unless obviously incorrect, shall govern.

The bidder shall correctly sign the proposal in ink. If the proposal is made by an individual, their name and post office address must be shown. If made by a partnership, the name and post office address of each member of the partnership must be shown. If made by a corporation, the person signing the proposal shall give the name of the state where the corporation was chartered and the name, titles, and business address of the president, secretary, and the treasurer. Anyone signing a proposal as an agent shall file evidence of their authority to do so and that the signature is binding upon the firm or corporation.

20-08 Responsive and responsible bidder. A responsive bid conforms to all significant terms and conditions contained in the Owner's invitation for bid. It is the Owner's responsibility to decide if the exceptions taken by a bidder to the solicitation are material or not and the extent of deviation it is willing to accept.

A responsible bidder has the ability to perform successfully under the terms and conditions of a proposed procurement, as defined in 2 CFR § 200.318(h). This includes such matters as Contractor integrity, compliance with public policy, record of past performance, and financial and technical resources.

20-09 Irregular proposals. Proposals shall be considered irregular for the following reasons:

a. If the proposal is on a form other than that furnished by the Owner, or if the Owner's form is altered, or if any part of the proposal form is detached.

b. If there are unauthorized additions, conditional or alternate pay items, or irregularities of any kind that make the proposal incomplete, indefinite, or otherwise ambiguous.

c. If the proposal does not contain a unit price for each pay item listed in the proposal, except in the case of authorized alternate pay items, for which the bidder is not required to furnish a unit price.

d. If the proposal contains unit prices that are obviously unbalanced.

e. If the proposal is not accompanied by the proposal guaranty specified by the Owner.

f. If the applicable Disadvantaged Business Enterprise information is incomplete.

The Owner reserves the right to reject any irregular proposal and the right to waive technicalities if such waiver is in the best interest of the Owner and conforms to local laws and ordinances pertaining to the letting of construction contracts.

20-10 Bid guarantee. Each separate proposal shall be accompanied by a bid bond, certified check, or other specified acceptable collateral, in the amount specified in the proposal form. Such bond, check, or collateral, shall be made payable to the Owner.

20-11 Delivery of proposal. Each proposal submitted shall be placed in a sealed envelope plainly marked with the project number, location of airport, and name and business address of the bidder on the outside. When sent by mail, preferably registered, the sealed proposal, marked as indicated above, should be enclosed in an additional envelope. No proposal will be considered unless received at the place specified in the advertisement or as modified by Addendum before the time specified for opening all bids. Proposals received after the bid opening time shall be returned to the bidder unopened.

20-12 Withdrawal or revision of proposals. A bidder may withdraw or revise (by withdrawal of one proposal and submission of another) a proposal provided that the bidder's request for withdrawal is received by the Owner in writing before the time specified for opening bids. Revised proposals must be received at the place specified in the advertisement before the time specified for opening all bids.

20-13 Public opening of proposals. Proposals shall be opened, and read, publicly at the time and place specified in the advertisement. Bidders, their authorized agents, and other interested persons are invited to attend. Proposals that have been withdrawn (by written or telegraphic request) or received after the time specified for opening bids shall be returned to the bidder unopened.

20-14 Disqualification of bidders. A bidder shall be considered disqualified for any of the following reasons:

a. Submitting more than one proposal from the same partnership, firm, or corporation under the same or different name.

b. Evidence of collusion among bidders. Bidders participating in such collusion shall be disqualified as bidders for any future work of the Owner until any such participating bidder has been reinstated by the Owner as a qualified bidder.

c. If the bidder is considered to be in "default" for any reason specified in paragraph 20-04, *Issuance of Proposal Forms*, of this section.

20-15 Discrepancies and Omissions. A Bidder who discovers discrepancies or omissions with the project bid documents shall immediately notify the Owner's Engineer of the matter. A bidder that has doubt as to the true meaning of a project requirement may submit to the Owner's Engineer a written request for interpretation no later than 10 days prior to bid opening.

Any interpretation of the project bid documents by the Owner's Engineer will be by written addendum issued by the Owner. The Owner will not consider any instructions, clarifications or interpretations of the bidding documents in any manner other than written addendum.

END OF SECTION 20

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SECTION 30 AWARD AND EXECUTION OF CONTRACT

30-01 Consideration of proposals. After the proposals are publicly opened and read, they will be compared on the basis of the summation of the products obtained by multiplying the estimated quantities shown in the proposal by the unit bid prices. If a bidder's proposal contains a discrepancy between unit bid prices written in words and unit bid prices written in numbers, the unit bid price written in words shall govern.

Until the award of a contract is made, the Owner reserves the right to reject a bidder's proposal for any of the following reasons:

a. If the proposal is irregular as specified in Section 20, paragraph 20-09, *Irregular Proposals*.

b. If the bidder is disqualified for any of the reasons specified Section 20, paragraph 20-14, *Disqualification of Bidders*.

In addition, until the award of a contract is made, the Owner reserves the right to reject any or all proposals, waive technicalities, if such waiver is in the best interest of the Owner and is in conformance with applicable state and local laws or regulations pertaining to the letting of construction contracts; advertise for new proposals; or proceed with the work otherwise. All such actions shall promote the Owner's best interests.

30-02 Award of contract. The award of a contract, if it is to be awarded, shall be made within 120 calendar days of the date specified for publicly opening proposals, unless otherwise specified herein.

If the Owner elects to proceed with an award of contract, the Owner will make award to the responsible bidder whose bid, conforming with all the material terms and conditions of the bid documents, is the lowest in price.

30-03 Cancellation of award. The Owner reserves the right to cancel the award without liability to the bidder, except return of proposal guaranty, at any time before a contract has been fully executed by all parties and is approved by the Owner in accordance with paragraph 30-07 *Approval of Contract*.

30-04 Return of proposal guaranty. All proposal guaranties, except those of the two lowest bidders, will be returned immediately after the Owner has made a comparison of bids as specified in the paragraph 30-01, *Consideration of Proposals*. Proposal guaranties of the two lowest bidders will be retained by the Owner until such time as an award is made, at which time, the unsuccessful bidder's proposal guaranty will be returned. The successful bidder's proposal guaranty will be returned as soon as the Owner receives the contract bonds as specified in paragraph 30-05, *Requirements of Contract Bonds*.

30-05 Requirements of contract bonds. At the time of the execution of the contract, the successful bidder shall furnish the Owner a surety bond or bonds that have been fully executed by the bidder and the surety guaranteeing the performance of the work and the payment of all legal debts that may be incurred by reason of the Contractor's performance of the work. The surety and the form of the bond or bonds shall be acceptable to the Owner. Unless otherwise specified in this subsection, the surety bond or bonds shall be in a sum equal to the full amount of the contract.

30-06 Execution of contract. The successful bidder shall sign (execute) the necessary agreements for entering into the contract and return the signed contract to the Owner, along with the fully executed surety bond or bonds specified in paragraph 30-05, *Requirements of Contract Bonds*, of this section, within 15 calendar days from the date mailed or otherwise delivered to the successful bidder.

30-07 Approval of contract. Upon receipt of the contract and contract bond or bonds that have been executed by the successful bidder, the Owner shall complete the execution of the contract in accordance with local laws or ordinances, and return the fully executed contract to the Contractor. Delivery of the fully executed contract to the Contractor shall constitute the Owner's approval to be bound by the successful bidder's proposal and the terms of the contract.

30-08 Failure to execute contract. Failure of the successful bidder to execute the contract and furnish an acceptable surety bond or bonds within the period specified in paragraph 30-06, *Execution of Contract*, of

this section shall be just cause for cancellation of the award and forfeiture of the proposal guaranty, not as a penalty, but as liquidated damages to the Owner.

END OF SECTION 30

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SECTION 40 SCOPE OF WORK

40-01 Intent of contract. The intent of the contract is to provide for construction and completion, in every detail, of the work described. It is further intended that the Contractor shall furnish all labor, materials, equipment, tools, transportation, and supplies required to complete the work in accordance with the plans, specifications, and terms of the contract.

40-02 Alteration of work and quantities. The Owner reserves the right to make such changes in quantities and work as may be necessary or desirable to complete, in a satisfactory manner, the original intended work. Unless otherwise specified in the Contract, the Owner's Engineer or RPR shall be and is hereby authorized to make, in writing, such in-scope alterations in the work and variation of quantities as may be necessary to complete the work, provided such action does not represent a significant change in the character of the work.

For purpose of this section, a significant change in character of work means: any change that is outside the current contract scope of work; any change (increase or decrease) in the total contract cost by more than 25%; or any change in the total cost of a major contract item by more than 25%.

Work alterations and quantity variances that do not meet the definition of significant change in character of work shall not invalidate the contract nor release the surety. Contractor agrees to accept payment for such work alterations and quantity variances in accordance with Section 90, paragraph 90-03, *Compensation for Altered Quantities*.

Should the value of altered work or quantity variance meet the criteria for significant change in character of work, such altered work and quantity variance shall be covered by a supplemental agreement. Supplemental agreements shall also require consent of the Contractor's surety and separate performance and payment bonds. If the Owner and the Contractor are unable to agree on a unit adjustment for any contract item that requires a supplemental agreement, the Owner reserves the right to terminate the contract with respect to the item and make other arrangements for its completion.

40-03 Omitted items. The Owner, the Owner's Engineer or the RPR may provide written notice to the Contractor to omit from the work any contract item that does not meet the definition of major contract item. Major contract items may be omitted by a supplemental agreement. Such omission of contract items shall not invalidate any other contract provision or requirement.

Should a contract item be omitted or otherwise ordered to be non-performed, the Contractor shall be paid for all work performed toward completion of such item prior to the date of the order to omit such item. Payment for work performed shall be in accordance with Section 90, paragraph 90-04, *Payment for Omitted Items*.

40-04 Extra work. Should acceptable completion of the contract require the Contractor to perform an item of work not provided for in the awarded contract as previously modified by change order or supplemental agreement, Owner may issue a Change Order to cover the necessary extra work. Change orders for extra work shall contain agreed unit prices for performing the change order work in accordance with the requirements specified in the order, and shall contain any adjustment to the contract time that, in the RPR's opinion, is necessary for completion of the extra work.

When determined by the RPR to be in the Owner's best interest, the RPR may order the Contractor to proceed with extra work as provided in Section 90, paragraph 90-05, *Payment for Extra Work*. Extra work that is necessary for acceptable completion of the project, but is not within the general scope of the work covered by the original contract shall be covered by a supplemental agreement as defined in Section 10, paragraph 10-59, *Supplemental Agreement*.

If extra work is essential to maintaining the project critical path, RPR may order the Contractor to commence the extra work under a Time and Material contract method. Once sufficient detail is available to establish the level of effort necessary for the extra work, the Owner shall initiate a change order or supplemental agreement to cover the extra work.

Any claim for payment of extra work that is not covered by written agreement (change order or supplemental agreement) shall be rejected by the Owner.

40-05 Maintenance of traffic. It is the explicit intention of the contract that the safety of aircraft, as well as the Contractor's equipment and personnel, is the most important consideration. The Contractor shall maintain traffic in the manner detailed in the Construction Safety and Phasing Plan (CSPP).

a. It is understood and agreed that the Contractor shall provide for the free and unobstructed movement of aircraft in the air operations areas (AOAs) of the airport with respect to their own operations and the operations of all subcontractors as specified in Section 80, paragraph 80-04, *Limitation of Operations*. It is further understood and agreed that the Contractor shall provide for the uninterrupted operation of visual and electronic signals (including power supplies thereto) used in the guidance of aircraft while operating to, from, and upon the airport as specified in Section 70, paragraph 70-15, *Contractor's Responsibility for Utility Service and Facilities of Others*.

b. With respect to their own operations and the operations of all subcontractors, the Contractor shall provide marking, lighting, and other acceptable means of identifying personnel, equipment, vehicles, storage areas, and any work area or condition that may be hazardous to the operation of aircraft, fire-rescue equipment, or maintenance vehicles at the airport in accordance with the construction safety and phasing plan (CSPP) and the safety plan compliance document (SPCD).

c. When the contract requires the maintenance of an existing road, street, or highway during the Contractor's performance of work that is otherwise provided for in the contract, plans, and specifications, the Contractor shall keep the road, street, or highway open to all traffic and shall provide maintenance as may be required to accommodate traffic. The Contractor, at their expense, shall be responsible for the repair to equal or better than preconstruction conditions of any damage caused by the Contractor's equipment and personnel. The Contractor shall furnish, erect, and maintain barricades, warning signs, flag person, and other traffic control devices in reasonable conformity with the Manual on Uniform Traffic Control Devices (MUTCD) (<http://mutcd.fhwa.dot.gov/>), unless otherwise specified. The Contractor shall also construct and maintain in a safe condition any temporary connections necessary for ingress to and egress from abutting property or intersecting roads, streets or highways.

40-06 Removal of existing structures. All existing structures encountered within the established lines, grades, or grading sections shall be removed by the Contractor, unless such existing structures are otherwise specified to be relocated, adjusted up or down, salvaged, abandoned in place, reused in the work or to remain in place. The cost of removing such existing structures shall not be measured or paid for directly, but shall be included in the various contract items.

Should the Contractor encounter an existing structure (above or below ground) in the work for which the disposition is not indicated on the plans, the Resident Project Representative (RPR) shall be notified prior to disturbing such structure. The disposition of existing structures so encountered shall be immediately determined by the RPR in accordance with the provisions of the contract.

Except as provided in Section 40, paragraph 40-07, *Rights in and Use of Materials Found in the Work*, it is intended that all existing materials or structures that may be encountered (within the lines, grades, or grading sections established for completion of the work) shall be used in the work as otherwise provided for in the contract and shall remain the property of the Owner when so used in the work.

40-07 Rights in and use of materials found in the work. Should the Contractor encounter any material such as (but not restricted to) sand, stone, gravel, slag, or concrete slabs within the established lines, grades, or grading sections, the use of which is intended by the terms of the contract to be embankment, the Contractor may at their own option either:

a. Use such material in another contract item, providing such use is approved by the RPR and is in conformance with the contract specifications applicable to such use; or,

b. Remove such material from the site, upon written approval of the RPR; or

c. Use such material for the Contractor's own temporary construction on site; or,

d. Use such material as intended by the terms of the contract.

Should the Contractor wish to exercise option a., b., or c., the Contractor shall request the RPR's approval in advance of such use.

Should the RPR approve the Contractor's request to exercise option a., b., or c., the Contractor shall be paid for the excavation or removal of such material at the applicable contract price. The Contractor shall replace, at their expense, such removed or excavated material with an agreed equal volume of material that is acceptable for use in constructing embankment, backfills, or otherwise to the extent that such replacement material is needed to complete the contract work. The Contractor shall not be charged for use of such material used in the work or removed from the site.

Should the RPR approve the Contractor's exercise of option a., the Contractor shall be paid, at the applicable contract price, for furnishing and installing such material in accordance with requirements of the contract item in which the material is used.

It is understood and agreed that the Contractor shall make no claim for delays by reason of their own exercise of option a., b., or c.

The Contractor shall not excavate, remove, or otherwise disturb any material, structure, or part of a structure which is located outside the lines, grades, or grading sections established for the work, except where such excavation or removal is provided for in the contract, plans, or specifications.

40-08 Final cleanup. Upon completion of the work and before acceptance and final payment will be made, the Contractor shall remove from the site all machinery, equipment, surplus and discarded materials, rubbish, temporary structures, and stumps or portions of trees. The Contractor shall cut all brush and woods within the limits indicated and shall leave the site in a neat and presentable condition. Material cleared from the site and deposited on adjacent property will not be considered as having been disposed of satisfactorily, unless the Contractor has obtained the written permission of the property Owner.

END OF SECTION 40

SECTION 50 CONTROL OF WORK

50-01 Authority of the Resident Project Representative (RPR). The RPR has final authority regarding the interpretation of project specification requirements. The RPR shall determine acceptability of the quality of materials furnished, method of performance of work performed, and the manner and rate of performance of the work. The RPR does not have the authority to accept work that does not conform to specification requirements.

50-02 Conformity with plans and specifications. All work and all materials furnished shall be in reasonably close conformity with the lines, grades, grading sections, cross-sections, dimensions, material requirements, and testing requirements that are specified (including specified tolerances) in the contract, plans, or specifications.

If the RPR finds the materials furnished, work performed, or the finished product not within reasonably close conformity with the plans and specifications, but that the portion of the work affected will, in their opinion, result in a finished product having a level of safety, economy, durability, and workmanship acceptable to the Owner, the RPR will advise the Owner of their determination that the affected work be accepted and remain in place. The RPR will document the determination and recommend to the Owner a basis of acceptance that will provide for an adjustment in the contract price for the affected portion of the work. Changes in the contract price must be covered by contract change order or supplemental agreement as applicable.

If the RPR finds the materials furnished, work performed, or the finished product are not in reasonably close conformity with the plans and specifications and have resulted in an unacceptable finished product, the affected work or materials shall be removed and replaced or otherwise corrected by and at the expense of the Contractor in accordance with the RPR's written orders.

The term "reasonably close conformity" shall not be construed as waiving the Contractor's responsibility to complete the work in accordance with the contract, plans, and specifications. The term shall not be construed as waiving the RPR's responsibility to insist on strict compliance with the requirements of the contract, plans, and specifications during the Contractor's execution of the work, when, in the RPR's opinion, such compliance is essential to provide an acceptable finished portion of the work.

The term "reasonably close conformity" is also intended to provide the RPR with the authority, after consultation with the Sponsor and FAA, to use sound engineering judgment in their determinations to accept work that is not in strict conformity, but will provide a finished product equal to or better than that required by the requirements of the contract, plans and specifications.

The RPR will not be responsible for the Contractor's means, methods, techniques, sequences, or procedures of construction or the safety precautions incident thereto.

50-03 Coordination of contract, plans, and specifications. The contract, plans, specifications, and all referenced standards cited are essential parts of the contract requirements. If electronic files are provided and used on the project and there is a conflict between the electronic files and hard copy plans, the hard copy plans shall govern. A requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In case of discrepancy, calculated dimensions will govern over scaled dimensions; contract technical specifications shall govern over contract general provisions, plans, cited standards for materials or testing, and cited advisory circulars (ACs); contract general provisions shall govern over plans, cited standards for materials or testing, and cited ACs; plans shall govern over cited standards for materials or testing and cited ACs. If any paragraphs contained in the Special Provisions conflict with General Provisions or Technical Specifications, the Special Provisions shall govern.

From time to time, discrepancies within cited testing standards occur due to the timing of the change, edits, and/or replacement of the standards. If the Contractor discovers any apparent discrepancy within standard test methods, the Contractor shall immediately ask the RPR for an interpretation and decision, and such decision shall be final.

The Contractor shall not take advantage of any apparent error or omission on the plans or specifications. In the event the Contractor discovers any apparent error or discrepancy, Contractor shall immediately

notify the Owner or the designated representative in writing requesting their written interpretation and decision.

50-04 List of Special Provisions. [___]

The Engineer must list the Special Provisions in the order of precedence.

50-05 Cooperation of Contractor. The Contractor shall be supplied an electronic PDF of the plans and specifications. The Contractor shall have available on the construction site at all times one hardcopy each of the plans and specifications. Additional hard copies of plans and specifications may be obtained by the Contractor for the cost of reproduction.

The Contractor shall give constant attention to the work to facilitate the progress thereof, and shall cooperate with the RPR and their inspectors and with other Contractors in every way possible. The Contractor shall have a competent superintendent on the work at all times who is fully authorized as their agent on the work. The superintendent shall be capable of reading and thoroughly understanding the plans and specifications and shall receive and fulfill instructions from the RPR or their authorized representative.

50-06 Cooperation between Contractors. The Owner reserves the right to contract for and perform other or additional work on or near the work covered by this contract.

When separate contracts are let within the limits of any one project, each Contractor shall conduct the work not to interfere with or hinder the progress of completion of the work being performed by other Contractors. Contractors working on the same project shall cooperate with each other as directed.

Each Contractor involved shall assume all liability, financial or otherwise, in connection with their own contract and shall protect and hold harmless the Owner from any and all damages or claims that may arise because of inconvenience, delays, or loss experienced because of the presence and operations of other Contractors working within the limits of the same project.

The Contractor shall arrange their work and shall place and dispose of the materials being used to not interfere with the operations of the other Contractors within the limits of the same project. The Contractor shall join their work with that of the others in an acceptable manner and shall perform it in proper sequence to that of the others.

50-07 Construction layout and stakes. The Engineer/RPR shall establish necessary horizontal and vertical control. The establishment of Survey Control and/or reestablishment of survey control shall be by a State Licensed Land Surveyor. Contractor is responsible for preserving integrity of horizontal and vertical controls established by Engineer/RPR. In case of negligence on the part of the Contractor or their employees, resulting in the destruction of any horizontal and vertical control, the resulting costs will be deducted as a liquidated damage against the Contractor.

Prior to the start of construction, the Contractor will check all control points for horizontal and vertical accuracy and certify in writing to the RPR that the Contractor concurs with survey control established for the project. All lines, grades and measurements from control points necessary for the proper execution and control of the work on this project will be provided to the RPR. The Contractor is responsible to establish all layout required for the construction of the project.

Copies of survey notes will be provided to the RPR for each area of construction and for each placement of material as specified to allow the RPR to make periodic checks for conformance with plan grades, alignments and grade tolerances required by the applicable material specifications. Surveys will be provided to the RPR prior to commencing work items that cover or disturb the survey staking. Survey(s) and notes shall be provided in electronic format .pdf and AutoCAD.

Laser, GPS, String line, or other automatic control shall be checked with temporary control as necessary. In the case of error, on the part of the Contractor, their surveyor, employees or subcontractors, resulting in

established grades, alignment or grade tolerances that do not concur with those specified or shown on the plans, the Contractor is solely responsible for correction, removal, replacement and all associated costs at no additional cost to the Owner. Survey(s) and notes shall be provided in electronic .pdf and AutoCAD. No direct payment will be made, unless otherwise specified in contract documents, for this labor, materials, or other expenses. The cost shall be included in the price of the bid for the various items of the Contract.

50-08 Authority and duties of Quality Assurance (QA) inspectors. QA inspectors shall be authorized to inspect all work done and all material furnished. Such QA inspection may extend to all or any part of the work and to the preparation, fabrication, or manufacture of the materials to be used. QA inspectors are not authorized to revoke, alter, or waive any provision of the contract. QA inspectors are not authorized to issue instructions contrary to the plans and specifications or to act as foreman for the Contractor.

QA Inspectors are authorized to notify the Contractor or their representatives of any failure of the work or materials to conform to the requirements of the contract, plans, or specifications and to reject such nonconforming materials in question until such issues can be referred to the RPR for a decision.

50-09 Inspection of the work. All materials and each part or detail of the work shall be subject to inspection. The RPR shall be allowed access to all parts of the work and shall be furnished with such information and assistance by the Contractor as is required to make a complete and detailed inspection.

If the RPR requests it, the Contractor, at any time before acceptance of the work, shall remove or uncover such portions of the finished work as may be directed. After examination, the Contractor shall restore said portions of the work to the standard required by the specifications. Should the work thus exposed or examined prove acceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be paid for as extra work; but should the work so exposed or examined prove unacceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be at the Contractor's expense.

Provide advance written notice to the RPR of work the Contractor plans to perform each week and each day. Any work done or materials used without written notice and allowing opportunity for inspection by the RPR may be ordered removed and replaced at the Contractor's expense.

Should the contract work include relocation, adjustment, or any other modification to existing facilities, not the property of the (contract) Owner, authorized representatives of the Owners of such facilities shall have the right to inspect such work. Such inspection shall in no sense make any facility owner a party to the contract, and shall in no way interfere with the rights of the parties to this contract.

50-10 Removal of unacceptable and unauthorized work. All work that does not conform to the requirements of the contract, plans, and specifications will be considered unacceptable, unless otherwise determined acceptable by the RPR as provided in paragraph 50-02, *Conformity with Plans and Specifications*.

Unacceptable work, whether the result of poor workmanship, use of defective materials, damage through carelessness, or any other cause found to exist prior to the final acceptance of the work, shall be removed immediately and replaced in an acceptable manner in accordance with the provisions of Section 70, paragraph 70-14, *Contractor's Responsibility for Work*.

No removal work made under provision of this paragraph shall be done without lines and grades having been established by the RPR. Work done contrary to the instructions of the RPR, work done beyond the lines shown on the plans or as established by the RPR, except as herein specified, or any extra work done without authority, will be considered as unauthorized and will not be paid for under the provisions of the contract. Work so done may be ordered removed or replaced at the Contractor's expense.

Upon failure on the part of the Contractor to comply with any order of the RPR made under the provisions of this subsection, the RPR will have authority to cause unacceptable work to be remedied or removed and replaced; and unauthorized work to be removed and recover the resulting costs as a liquidated damage against the Contractor.

50-11 Load restrictions. The Contractor shall comply with all legal load restrictions in the hauling of materials on public roads beyond the limits of the work. A special permit will not relieve the Contractor of liability for damage that may result from the moving of material or equipment.

The operation of equipment of such weight or so loaded as to cause damage to structures or to any other type of construction will not be permitted. Hauling of materials over the base course or surface course under construction shall be limited as directed. No loads will be permitted on a concrete pavement, base, or structure before the expiration of the curing period. The Contractor, at their own expense, shall be responsible for the repair to equal or better than preconstruction conditions of any damage caused by the Contractor's equipment and personnel.

50-12 Maintenance during construction. The Contractor shall maintain the work during construction and until the work is accepted. Maintenance shall constitute continuous and effective work prosecuted day by day, with adequate equipment and forces so that the work is maintained in satisfactory condition at all times.

In the case of a contract for the placing of a course upon a course or subgrade previously constructed, the Contractor shall maintain the previous course or subgrade during all construction operations.

All costs of maintenance work during construction and before the project is accepted shall be included in the unit prices bid on the various contract items, and the Contractor will not be paid an additional amount for such work.

50-13 Failure to maintain the work. Should the Contractor at any time fail to maintain the work as provided in paragraph 50-12, *Maintenance during Construction*, the RPR shall immediately notify the Contractor of such noncompliance. Such notification shall specify a reasonable time within which the Contractor shall be required to remedy such unsatisfactory maintenance condition. The time specified will give due consideration to the exigency that exists.

Should the Contractor fail to respond to the RPR's notification, the Owner may suspend any work necessary for the Owner to correct such unsatisfactory maintenance condition, depending on the exigency that exists. Any maintenance cost incurred by the Owner, shall be recovered as a liquidated damage against the Contractor.

50-14 Partial acceptance. If at any time during the execution of the project the Contractor substantially completes a usable unit or portion of the work, the occupancy of which will benefit the Owner, the Contractor may request the RPR to make final inspection of that unit. If the RPR finds upon inspection that the unit has been satisfactorily completed in compliance with the contract, the RPR may accept it as being complete, and the Contractor may be relieved of further responsibility for that unit. Such partial acceptance and beneficial occupancy by the Owner shall not void or alter any provision of the contract.

50-15 Final acceptance. Upon due notice from the Contractor of presumptive completion of the entire project, the RPR and Owner will make an inspection. If all construction provided for and contemplated by the contract is found to be complete in accordance with the contract, plans, and specifications, such inspection shall constitute the final inspection. The RPR shall notify the Contractor in writing of final acceptance as of the date of the final inspection.

If, however, the inspection discloses any work, in whole or in part, as being unsatisfactory, the RPR will notify the Contractor and the Contractor shall correct the unsatisfactory work. Upon correction of the work, another inspection will be made which shall constitute the final inspection, provided the work has been satisfactorily completed. In such event, the RPR will make the final acceptance and notify the Contractor in writing of this acceptance as of the date of final inspection.

50-16 Claims for adjustment and disputes. If for any reason the Contractor deems that additional compensation is due for work or materials not clearly provided for in the contract, plans, or specifications or previously authorized as extra work, the Contractor shall notify the RPR in writing of their intention to claim such additional compensation before the Contractor begins the work on which the Contractor bases the claim. If such notification is not given or the RPR is not afforded proper opportunity by the Contractor for keeping strict account of actual cost as required, then the Contractor hereby agrees to waive any claim for such additional compensation. Such notice by the Contractor and the fact that the RPR has kept account of the cost of the work shall not in any way be construed as proving or substantiating the validity of the claim. When the work on which the claim for additional compensation is based has been completed, the Contractor shall, within 10 calendar days, submit a written claim to the RPR who will present it to the Owner for consideration in accordance with local laws or ordinances.

Nothing in this subsection shall be construed as a waiver of the Contractor's right to dispute final payment based on differences in measurements or computations.

END OF SECTION 50

SECTION 60 CONTROL OF MATERIALS

60-01 Source of supply and quality requirements. The materials used in the work shall conform to the requirements of the contract, plans, and specifications. Unless otherwise specified, such materials that are manufactured or processed shall be new (as compared to used or reprocessed).

In order to expedite the inspection and testing of materials, the Contractor shall furnish documentation to the RPR as to the origin, composition, and manufacture of all materials to be used in the work. Documentation shall be furnished promptly after execution of the contract but, in all cases, prior to delivery of such materials.

At the RPR's option, materials may be approved at the source of supply before delivery. If it is found after trial that sources of supply for previously approved materials do not produce specified products, the Contractor shall furnish materials from other sources.

The Contractor shall furnish airport lighting equipment that meets the requirements of the specifications; and is listed in AC 150/5345-53, *Airport Lighting Equipment Certification Program and Addendum*, that is in effect on the date of advertisement.

60-02 Samples, tests, and cited specifications. All materials used in the work shall be inspected, tested, and approved by the RPR before incorporation in the work unless otherwise designated. Any work in which untested materials are used without approval or written permission of the RPR shall be performed at the Contractor's risk. Materials found to be unacceptable and unauthorized will not be paid for and, if directed by the RPR, shall be removed at the Contractor's expense.

Unless otherwise designated, quality assurance tests will be made by and at the expense of the Owner in accordance with the cited standard methods of ASTM, American Association of State Highway and Transportation Officials (AASHTO), federal specifications, Commercial Item Descriptions, and all other cited methods, which are current on the date of advertisement for bids.

The testing organizations performing on-site quality assurance field tests shall have copies of all referenced standards on the construction site for use by all technicians and other personnel. Unless otherwise designated, samples for quality assurance will be taken by a qualified representative of the RPR. All materials being used are subject to inspection, test, or rejection at any time prior to or during incorporation into the work. Copies of all tests will be furnished to the Contractor's representative at their request after review and approval of the RPR.

A copy of all Contractor QC test data shall be provided to the RPR daily, along with printed reports, in an approved format, on a weekly basis. After completion of the project, and prior to final payment, the Contractor shall submit a final report to the RPR showing all test data reports, plus an analysis of all results showing ranges, averages, and corrective action taken on all failing tests.

60-03 Certification of compliance/analysis (COC/COA). The RPR may permit the use, prior to sampling and testing, of certain materials or assemblies when accompanied by manufacturer's COC stating that such materials or assemblies fully comply with the requirements of the contract. The certificate shall be signed by the manufacturer. Each lot of such materials or assemblies delivered to the work must be accompanied by a certificate of compliance in which the lot is clearly identified. The COA is the manufacturer's COC and includes all applicable test results.

Materials or assemblies used on the basis of certificates of compliance may be sampled and tested at any time and if found not to be in conformity with contract requirements will be subject to rejection whether in place or not.

The form and distribution of certificates of compliance shall be as approved by the RPR.

When a material or assembly is specified by "brand name or equal" and the Contractor elects to furnish the specified "or equal," the Contractor shall be required to furnish the manufacturer's certificate of compliance for each lot of such material or assembly delivered to the work. Such certificate of compliance shall clearly identify each lot delivered and shall certify as to:

- a. Conformance to the specified performance, testing, quality or dimensional requirements; and,

b. Suitability of the material or assembly for the use intended in the contract work.

The RPR shall be the sole judge as to whether the proposed “or equal” is suitable for use in the work. The RPR reserves the right to refuse permission for use of materials or assemblies on the basis of certificates of compliance.

60-04 Plant inspection. The RPR or their authorized representative may inspect, at its source, any specified material or assembly to be used in the work. Manufacturing plants may be inspected from time to time for the purpose of determining compliance with specified manufacturing methods or materials to be used in the work and to obtain samples required for acceptance of the material or assembly.

Should the RPR conduct plant inspections, the following conditions shall exist:

a. The RPR shall have the cooperation and assistance of the Contractor and the producer with whom the Contractor has contracted for materials.

b. The RPR shall have full entry at all reasonable times to such parts of the plant that concern the manufacture or production of the materials being furnished.

c. If required by the RPR, the Contractor shall arrange for adequate office or working space that may be reasonably needed for conducting plant inspections. Place office or working space in a convenient location with respect to the plant.

It is understood and agreed that the Owner shall have the right to retest any material that has been tested and approved at the source of supply after it has been delivered to the site. The RPR shall have the right to reject only material which, when retested, does not meet the requirements of the contract, plans, or specifications.

60-05 Engineer/ Resident Project Representative (RPR) field office. The Contractor shall provide dedicated space for the use of the engineer, RPR, and inspectors, as a field office for the duration of the project. This space shall be located conveniently near the construction and shall be separate from any space used by the Contractor. The Contractor shall furnish water, sanitary facilities, heat, air conditioning, and electricity. See Specification Item M-110.

60-06 Storage of materials. Materials shall be stored to assure the preservation of their quality and fitness for the work. Stored materials, even though approved before storage, may again be inspected prior to their use in the work. Stored materials shall be located to facilitate their prompt inspection. The Contractor shall coordinate the storage of all materials with the RPR. Materials to be stored on airport property shall not create an obstruction to air navigation nor shall they interfere with the free and unobstructed movement of aircraft. Unless otherwise shown on the plans and/or CSPP, the storage of materials and the location of the Contractor’s plant and parked equipment or vehicles shall be as directed by the RPR. Private property shall not be used for storage purposes without written permission of the Owner or lessee of such property. The Contractor shall make all arrangements and bear all expenses for the storage of materials on private property. Upon request, the Contractor shall furnish the RPR a copy of the property Owner’s permission.

All storage sites on private or airport property shall be restored to their original condition by the Contractor at their expense, except as otherwise agreed to (in writing) by the Owner or lessee of the property.

60-07 Unacceptable materials. Any material or assembly that does not conform to the requirements of the contract, plans, or specifications shall be considered unacceptable and shall be rejected. The Contractor shall remove any rejected material or assembly from the site of the work, unless otherwise instructed by the RPR.

Rejected material or assembly, the defects of which have been corrected by the Contractor, shall not be returned to the site of the work until such time as the RPR has approved its use in the work.

60-08 Owner furnished materials. The Contractor shall furnish all materials required to complete the work, except those specified, if any, to be furnished by the Owner. Owner-furnished materials shall be made available to the Contractor at the location specified.

All costs of handling, transportation from the specified location to the site of work, storage, and installing Owner-furnished materials shall be included in the unit price bid for the contract item in which such Owner-furnished material is used.

After any Owner-furnished material has been delivered to the location specified, the Contractor shall be responsible for any demurrage, damage, loss, or other deficiencies that may occur during the Contractor's handling, storage, or use of such Owner-furnished material. The Owner will deduct from any monies due or to become due the Contractor any cost incurred by the Owner in making good such loss due to the Contractor's handling, storage, or use of Owner-furnished materials.

END OF SECTION 60

SECTION 70 LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC

70-01 Laws to be observed. The Contractor shall keep fully informed of all federal and state laws, all local laws, ordinances, and regulations and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any manner affect those engaged or employed on the work, or which in any way affect the conduct of the work. The Contractor shall at all times observe and comply with all such laws, ordinances, regulations, orders, and decrees; and shall protect and indemnify the Owner and all their officers, agents, or servants against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by the Contractor or the Contractor's employees.

70-02 Permits, licenses, and taxes. The Contractor shall procure all permits and licenses, pay all charges, fees, and taxes, and give all notices necessary and incidental to the due and lawful execution of the work.

70-03 Patented devices, materials, and processes. If the Contractor is required or desires to use any design, device, material, or process covered by letters of patent or copyright, the Contractor shall provide for such use by suitable legal agreement with the Patentee or Owner. The Contractor and the surety shall indemnify and hold harmless the Owner, any third party, or political subdivision from any and all claims for infringement by reason of the use of any such patented design, device, material or process, or any trademark or copyright, and shall indemnify the Owner for any costs, expenses, and damages which it may be obliged to pay by reason of an infringement, at any time during the execution or after the completion of the work.

70-04 Restoration of surfaces disturbed by others. The Owner reserves the right to authorize the construction, reconstruction, or maintenance of any public or private utility service, FAA or National Oceanic and Atmospheric Administration (NOAA) facility, or a utility service of another government agency at any time during the progress of the work. To the extent that such construction, reconstruction, or maintenance has been coordinated with the Owner, such authorized work (by others) must be shown on the plans and is indicated as follows:

None at this time

Except as listed above, the Contractor shall not permit any individual, firm, or corporation to excavate or otherwise disturb such utility services or facilities located within the limits of the work without the written permission of the RPR.

Should the Owner of public or private utility service, FAA, or NOAA facility, or a utility service of another government agency be authorized to construct, reconstruct, or maintain such utility service or facility during the progress of the work, the Contractor shall cooperate with such Owners by arranging and performing the work in this contract to facilitate such construction, reconstruction or maintenance by others whether or not such work by others is listed above. When ordered as extra work by the RPR, the Contractor shall make all necessary repairs to the work which are due to such authorized work by others, unless otherwise provided for in the contract, plans, or specifications. It is understood and agreed that the Contractor shall not be entitled to make any claim for damages due to such authorized work by others or for any delay to the work resulting from such authorized work.

70-05 Federal Participation. The United States Government has agreed to reimburse the Owner for some portion of the contract costs. The contract work is subject to the inspection and approval of duly authorized representatives of the FAA Administrator. No requirement of this contract shall be construed as making the United States a party to the contract nor will any such requirement interfere, in any way, with the rights of either party to the contract.

70-06 Sanitary, health, and safety provisions. The Contractor's worksite and facilities shall comply with applicable federal, state, and local requirements for health, safety and sanitary provisions.

70-07 Public convenience and safety. The Contractor shall control their operations and those of their subcontractors and all suppliers, to assure the least inconvenience to the traveling public. Under all circumstances, safety shall be the most important consideration.

The Contractor shall maintain the free and unobstructed movement of aircraft and vehicular traffic with respect to their own operations and those of their own subcontractors and all suppliers in accordance with Section 40, paragraph 40-05, *Maintenance of Traffic*, and shall limit such operations for the convenience and safety of the traveling public as specified in Section 80, paragraph 80-04, *Limitation of Operations*.

The Contractor shall remove or control debris and rubbish resulting from its work operations at frequent intervals, and upon the order of the RPR. If the RPR determines the existence of Contractor debris in the work site represents a hazard to airport operations and the Contractor is unable to respond in a prompt and reasonable manner, the RPR reserves the right to assign the task of debris removal to a third party and recover the resulting costs as a liquidated damage against the Contractor.

70-08 Construction Safety and Phasing Plan (CSPP). The Contractor shall complete the work in accordance with the approved Construction Safety and Phasing Plan (CSPP) developed in accordance with AC 150/5370-2, Operational Safety on Airports During Construction. The CSPP sheet(s) are located within the project plans.

70-09 Use of explosives. The use of explosives is not permitted on this project.

70-10 Protection and restoration of property and landscape. The Contractor shall be responsible for the preservation of all public and private property, and shall protect carefully from disturbance or damage all land monuments and property markers until the Engineer/RPR has witnessed or otherwise referenced their location and shall not move them until directed.

The Contractor shall be responsible for all damage or injury to property of any character, during the execution of the work, resulting from any act, omission, neglect, or misconduct in manner or method of executing the work, or at any time due to defective work or materials, and said responsibility shall not be released until the project has been completed and accepted.

When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work, or in consequence of the non-execution thereof by the Contractor, the Contractor shall restore, at their expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, or otherwise restoring as may be directed, or the Contractor shall make good such damage or injury in an acceptable manner.

70-11 Responsibility for damage claims. The Contractor shall indemnify and hold harmless the Engineer/RPR and the Owner and their officers, agents, and employees from all suits, actions, or claims, of any character, brought because of any injuries or damage received or sustained by any person, persons, or property on account of the operations of the Contractor; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any act or omission, neglect, or misconduct of said Contractor; or because of any claims or amounts recovered from any infringements of patent, trademark, or copyright; or from any claims or amounts arising or recovered under the "Workmen's Compensation Act," or any other law, ordinance, order, or decree. Money due the Contractor under and by virtue of their own contract considered necessary by the Owner for such purpose may be retained for the use of the Owner or, in case no money is due, their own surety may be held until such suits, actions, or claims for injuries or damages shall have been settled and suitable evidence to that effect furnished to the Owner, except that money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that he or she is adequately protected by public liability and property damage insurance.

70-12 Third party beneficiary clause. It is specifically agreed between the parties executing the contract that it is not intended by any of the provisions of any part of the contract to create for the public or any member thereof, a third-party beneficiary or to authorize anyone not a party to the contract to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of the contract.

70-13 Opening sections of the work to traffic. If it is necessary for the Contractor to complete portions of the contract work for the beneficial occupancy of the Owner prior to completion of the entire contract, such "phasing" of the work must be specified below and indicated on the approved Construction Safety and Phasing Plan (CSPP) and the project plans. When so specified, the Contractor shall complete such portions of the work on or before the date specified or as otherwise specified.

WORK AREA B1 – OFFSITE MITIGATION (SOUTH SITE)

Work Area

South Mitigation Site, located in Wilton, NY.

Duration

120 Calendar Days

Work Area Restrictions

None

Primary Work to be performed in this Work Area

Clearing and grubbing of existing tree stumps

Rough grade and place topsoil

Plant and seed habitat area

WORK AREA B2 – OFFSITE MITIGATION (NORTH SITE)

Work Area

North Mitigation Site, located in Wilton, NY.

Duration

160 Calendar Days

Work Area Restrictions

None

Primary Work to be performed in this Work Area

Clearing and grubbing of existing tree stumps

Rough grade and place topsoil

Plant and seed habitat area

SEQUENCE OF WORK SUMMARY

Sequence	Work Item
1	Grub Existing Stumps
2	Strip and Remove Existing Top Soil
3	Rough Grade Terrain
4	Plant Habitat Seeds

Upon completion of any portion of work listed above, such portion shall be accepted by the Owner in accordance with Section 50, paragraph 50-14, *Partial Acceptance*.

No portion of the work may be opened by the Contractor until directed by the Owner in writing. Should it become necessary to open a portion of the work to traffic on a temporary or intermittent basis, such openings shall be made when, in the opinion of the RPR, such portion of the work is in an acceptable condition to support the intended traffic. Temporary or intermittent openings are considered to be inherent in the work and shall not constitute either acceptance of the portion of the work so opened or a waiver of any provision of the contract. Any damage to the portion of the work so opened that is not attributable to traffic which is permitted by the Owner shall be repaired by the Contractor at their expense.

The Contractor shall make their own estimate of the inherent difficulties involved in completing the work under the conditions herein described and shall not claim any added compensation by reason of delay or increased cost due to opening a portion of the contract work.

The Contractor must conform to safety standards contained AC 150/5370-2 and the approved CSPP.

Contractor shall refer to the plans, specifications, and the approved CSPP to identify barricade requirements, temporary and/or permanent markings, airfield lighting, guidance signs and other safety requirements prior to opening up sections of work to traffic.

70-14 Contractor's responsibility for work. Until the RPR's final written acceptance of the entire completed work, excepting only those portions of the work accepted in accordance with Section 50, paragraph 50-14, *Partial Acceptance*, the Contractor shall have the charge and care thereof and shall take every precaution against injury or damage to any part due to the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by any of the above causes before final acceptance and shall bear the expense thereof except damage to the work due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to acts of God such as earthquake, tidal wave, tornado, hurricane or other cataclysmic phenomenon of nature, or acts of the public enemy or of government authorities. If the work is suspended for any cause whatever, the Contractor shall be responsible for the work and shall take such precautions necessary to prevent damage to the work. The Contractor shall provide for normal drainage and shall erect necessary temporary structures, signs, or other facilities at their own expense. During such period of suspension of work, the Contractor shall properly and continuously maintain in an acceptable growing condition all living material in newly established planting, seeding, and sodding furnished under the contract, and shall take adequate precautions to protect new tree growth and other important vegetative growth against injury.

70-15 Contractor's responsibility for utility service and facilities of others. As provided in paragraph 70-04, *Restoration of Surfaces Disturbed by Others*, the Contractor shall cooperate with the owner of any public or private utility service, FAA or NOAA, or a utility service of another government agency that may be authorized by the Owner to construct, reconstruct or maintain such utility services or facilities during the progress of the work. In addition, the Contractor shall control their operations to prevent the unscheduled interruption of such utility services and facilities.

To the extent that such public or private utility services, FAA, or NOAA facilities, or utility services of another governmental agency are known to exist within the limits of the contract work, the approximate locations have been indicated on the plans and/or in the contract documents.

It is understood and agreed that the Owner does not guarantee the accuracy or the completeness of the location information relating to existing utility services, facilities, or structures that may be shown on the plans or encountered in the work. Any inaccuracy or omission in such information shall not relieve the Contractor of the responsibility to protect such existing features from damage or unscheduled interruption of service.

It is further understood and agreed that the Contractor shall, upon execution of the contract, notify the Owners of all utility services or other facilities of their plan of operations. Such notification shall be in writing addressed to "The Person to Contact" as provided in this paragraph and paragraph 70-04, *Restoration of Surfaces Disturbed By Others*. A copy of each notification shall be given to the RPR.

In addition to the general written notification provided, it shall be the responsibility of the Contractor to keep such individual Owners advised of changes in their plan of operations that would affect such Owners.

Prior to beginning the work in the general vicinity of an existing utility service or facility, the Contractor shall again notify each such Owner of their plan of operation. If, in the Contractor's opinion, the Owner's assistance is needed to locate the utility service or facility or the presence of a representative of the Owner is desirable to observe the work, such advice should be included in the notification. Such notification shall be given by the most expeditious means to reach the utility owner's "Person to Contact" no later than two normal business days prior to the Contractor's commencement of operations in such general vicinity. The Contractor shall furnish a written summary of the notification to the RPR.

The Contractor's failure to give the two days' notice shall be cause for the Owner to suspend the Contractor's operations in the general vicinity of a utility service or facility.

Where the outside limits of an underground utility service have been located and staked on the ground, the Contractor shall be required to use hand excavation methods within 3 feet (1 m) of such outside limits at such points as may be required to ensure protection from damage due to the Contractor's operations.

Should the Contractor damage or interrupt the operation of a utility service or facility by accident or otherwise, the Contractor shall immediately notify the proper authority and the RPR and shall take all reasonable measures to prevent further damage or interruption of service. The Contractor, in such events, shall cooperate with the utility service or facility owner and the RPR continuously until such damage has been repaired and service restored to the satisfaction of the utility or facility owner.

The Contractor shall bear all costs of damage and restoration of service to any utility service or facility due to their operations whether due to negligence or accident. The Owner reserves the right to deduct such costs from any monies due or which may become due the Contractor, or their own surety.

70-16 Furnishing rights-of-way. The Owner will be responsible for furnishing all rights-of-way upon which the work is to be constructed in advance of the Contractor's operations.

70-17 Personal liability of public officials. In carrying out any of the contract provisions or in exercising any power or authority granted by this contract, there shall be no liability upon the Engineer, RPR, their authorized representatives, or any officials of the Owner either personally or as an official of the Owner. It is understood that in such matters they act solely as agents and representatives of the Owner.

70-18 No waiver of legal rights. Upon completion of the work, the Owner will expeditiously make final inspection and notify the Contractor of final acceptance. Such final acceptance, however, shall not preclude or stop the Owner from correcting any measurement, estimate, or certificate made before or after completion of the work, nor shall the Owner be precluded or stopped from recovering from the Contractor or their surety, or both, such overpayment as may be sustained, or by failure on the part of the Contractor to fulfill their obligations under the contract. A waiver on the part of the Owner of any breach of any part of the contract shall not be held to be a waiver of any other or subsequent breach.

The Contractor, without prejudice to the terms of the contract, shall be liable to the Owner for latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards the Owner's rights under any warranty or guaranty.

70-19 Environmental protection. The Contractor shall comply with all federal, state, and local laws and regulations controlling pollution of the environment. The Contractor shall take necessary precautions to prevent pollution of streams, lakes, ponds, and reservoirs with fuels, oils, asphalts, chemicals, or other harmful materials and to prevent pollution of the atmosphere from particulate and gaseous matter.

The Contractor Shall take care to comply with the NYSDEC Incidental Take Permit and time of year restrictions associated with Karner Blue Butterfly Habitat.

70-20 Archaeological and historical findings. Unless otherwise specified in this subsection, the Contractor is advised that the site of the work is not within any property, district, or site, and does not contain any building, structure, or object listed in the current National Register of Historic Places published by the United States Department of Interior.

Should the Contractor encounter, during their operations, any building, part of a building, structure, or object that is incongruous with its surroundings, the Contractor shall immediately cease operations in that location and notify the RPR. The RPR will immediately investigate the Contractor's finding and the Owner will direct the Contractor to either resume operations or to suspend operations as directed.

Should the Owner order suspension of the Contractor's operations in order to protect an archaeological or historical finding, or order the Contractor to perform extra work, such shall be covered by an appropriate contract change order or supplemental agreement as provided in Section 40, paragraph 40-04, *Extra Work*, and Section 90, paragraph 90-05, *Payment for Extra Work*. If appropriate, the contract change order or supplemental agreement shall include an extension of contract time in accordance with Section 80, paragraph 80-07, *Determination and Extension of Contract Time*.

70-21 Insurance Requirements. See the Saratoga County Document A201 - GENERAL CONDITIONS for local insurance requirements.

END OF SECTION 70

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SECTION 80 EXECUTION AND PROGRESS

80-01 Subletting of contract. The Owner will not recognize any subcontractor on the work. The Contractor shall at all times when work is in progress be represented either in person, by a qualified superintendent, or by other designated, qualified representative who is duly authorized to receive and execute orders of the Resident Project Representative (RPR).

The Contractor shall perform, with his organization, an amount of work equal to at least **25%** percent of the total contract cost.

Should the Contractor elect to assign their contract, said assignment shall be concurred in by the surety, shall be presented for the consideration and approval of the Owner, and shall be consummated only on the written approval of the Owner.

The Contractor shall provide copies of all subcontracts to the RPR 14 days prior to being utilized on the project. As a minimum, the information shall include the following:

- Subcontractor's legal company name.
- Subcontractor's legal company address, including County name.
- Principal contact person's name, telephone and fax number.
- Complete narrative description, and dollar value of the work to be performed by the subcontractor.
- Copies of required insurance certificates in accordance with the specifications.
- Minority/ non-minority status.

80-02 Notice to proceed (NTP). The Owners notice to proceed will state the date on which contract time commences. The Contractor is expected to commence project operations within **7** days of the NTP date. The Contractor shall notify the RPR at least 24 hours in advance of the time contract operations begins. The Contractor shall not commence any actual operations prior to the date on which the notice to proceed is issued by the Owner.

80-03 Execution and progress. Unless otherwise specified, the Contractor shall submit their coordinated construction schedule showing all work activities for the RPR's review and acceptance at least 10 days prior to the start of work. The Contractor's progress schedule, once accepted by the RPR, will represent the Contractor's baseline plan to accomplish the project in accordance with the terms and conditions of the Contract. The RPR will compare actual Contractor progress against the baseline schedule to determine that status of the Contractor's performance. The Contractor shall provide sufficient materials, equipment, and labor to guarantee the completion of the project in accordance with the plans and specifications within the time set forth in the proposal.

If the Contractor falls significantly behind the submitted schedule, the Contractor shall, upon the RPR's request, submit a revised schedule for completion of the work within the contract time and modify their operations to provide such additional materials, equipment, and labor necessary to meet the revised schedule. Should the execution of the work be discontinued for any reason, the Contractor shall notify the RPR at least 24 hours in advance of resuming operations.

The Contractor shall not commence any actual construction prior to the date on which the NTP is issued by the Owner.

The project schedule shall be prepared as a network diagram in Critical Path Method (CPM), Program Evaluation and Review Technique (PERT), or other format, or as otherwise specified. It shall include information on the sequence of work activities, milestone dates, and activity duration. The schedule shall

show all work items identified in the project proposal for each work area and shall include the project start date and end date.

The Contractor shall maintain the work schedule and provide an update and analysis of the progress schedule on a twice monthly basis, or as otherwise specified in the contract. Submission of the work schedule shall not relieve the Contractor of overall responsibility for scheduling, sequencing, and coordinating all work to comply with the requirements of the contract.

80-04 Limitation of operations. The Contractor shall control their operations and the operations of their subcontractors and all suppliers to provide for the free and unobstructed movement of aircraft in the air operations areas (AOA) of the airport.

When the work requires the Contractor to conduct their operations within an AOA of the airport, the work shall be coordinated with airport operations (through the RPR) at least 48 hours prior to commencement of such work. The Contractor shall not close an AOA until so authorized by the RPR and until the necessary temporary marking, signage and associated lighting is in place as provided in Section 70, paragraph 70-08, *Construction Safety and Phasing Plan (CSPP)*.

When the contract work requires the Contractor to work within an AOA of the airport on an intermittent basis (intermittent opening and closing of the AOA), the Contractor shall maintain constant communications as specified; immediately obey all instructions to vacate the AOA; and immediately obey all instructions to resume work in such AOA. Failure to maintain the specified communications or to obey instructions shall be cause for suspension of the Contractor's operations in the AOA until satisfactory conditions are provided. The areas of the AOA identified in the Construction Safety Phasing Plan (CSPP) and as listed below, cannot be closed to operating aircraft to permit the Contractor's operations on a continuous basis and will therefore be closed to aircraft operations intermittently as follows:

None at this time.

The Contractor shall be required to conform to safety standards contained in AC 150/5370-2, Operational Safety on Airports During Construction and the approved CSPP.

80-04.1 Operational safety on airport during construction. All Contractors' operations shall be conducted in accordance with the approved project Construction Safety and Phasing Plan (CSPP) and the Safety Plan Compliance Document (SPCD) and the provisions set forth within the current version of AC 150/5370-2, Operational Safety on Airports During Construction. The CSPP included within the contract documents conveys minimum requirements for operational safety on the airport during construction activities. The Contractor shall prepare and submit a SPCD that details how it proposes to comply with the requirements presented within the CSPP.

The Contractor shall implement all necessary safety plan measures prior to commencement of any work activity. The Contractor shall conduct routine checks to assure compliance with the safety plan measures.

The Contractor is responsible to the Owner for the conduct of all subcontractors it employs on the project. The Contractor shall assure that all subcontractors are made aware of the requirements of the CSPP and SPCD and that they implement and maintain all necessary measures.

No deviation or modifications may be made to the approved CSPP and SPCD unless approved in writing by the Owner. The necessary coordination actions to review Contractor proposed modifications to an approved CSPP or approved SPCD can require a significant amount of time.

80-05 Character of workers, methods, and equipment. The Contractor shall, at all times, employ sufficient labor and equipment for prosecuting the work to full completion in the manner and time required by the contract, plans, and specifications.

All workers shall have sufficient skill and experience to perform properly the work assigned to them. Workers engaged in special work or skilled work shall have sufficient experience in such work and in the operation of the equipment required to perform the work satisfactorily.

Any person employed by the Contractor or by any subcontractor who violates any operational regulations or operational safety requirements and, in the opinion of the RPR, does not perform his work in a proper and skillful manner or is intemperate or disorderly shall, at the written request of the RPR, be removed

immediately by the Contractor or subcontractor employing such person, and shall not be employed again in any portion of the work without approval of the RPR.

Should the Contractor fail to remove such person or persons, or fail to furnish suitable and sufficient personnel for the proper execution of the work, the RPR may suspend the work by written notice until compliance with such orders.

All equipment that is proposed to be used on the work shall be of sufficient size and in such mechanical condition as to meet requirements of the work and to produce a satisfactory quality of work. Equipment used on any portion of the work shall not cause injury to previously completed work, adjacent property, or existing airport facilities due to its use.

When the methods and equipment to be used by the Contractor in accomplishing the work are not prescribed in the contract, the Contractor is free to use any methods or equipment that will accomplish the work in conformity with the requirements of the contract, plans, and specifications.

When the contract specifies the use of certain methods and equipment, such methods and equipment shall be used unless otherwise authorized by the RPR. If the Contractor desires to use a method or type of equipment other than specified in the contract, the Contractor may request authority from the RPR to do so. The request shall be in writing and shall include a full description of the methods and equipment proposed and of the reasons for desiring to make the change. If approval is given, it will be on the condition that the Contractor will be fully responsible for producing work in conformity with contract requirements. If, after trial use of the substituted methods or equipment, the RPR determines that the work produced does not meet contract requirements, the Contractor shall discontinue the use of the substitute method or equipment and shall complete the remaining work with the specified methods and equipment. The Contractor shall remove any deficient work and replace it with work of specified quality, or take such other corrective action as the RPR may direct. No change will be made in basis of payment for the contract items involved nor in contract time as a result of authorizing a change in methods or equipment under this paragraph.

80-06 Temporary suspension of the work. The Owner shall have the authority to suspend the work wholly, or in part, for such period or periods the Owner may deem necessary, due to unsuitable weather, or other conditions considered unfavorable for the execution of the work, or for such time necessary due to the failure on the part of the Contractor to carry out orders given or perform any or all provisions of the contract.

In the event that the Contractor is ordered by the Owner, in writing, to suspend work for some unforeseen cause not otherwise provided for in the contract and over which the Contractor has no control, the Contractor may be reimbursed for actual money expended on the work during the period of shutdown. No allowance will be made for anticipated profits. The period of shutdown shall be computed from the effective date of the written order to suspend work to the effective date of the written order to resume the work. Claims for such compensation shall be filed with the RPR within the time period stated in the RPR's order to resume work. The Contractor shall submit with their own claim information substantiating the amount shown on the claim. The RPR will forward the Contractor's claim to the Owner for consideration in accordance with local laws or ordinances. No provision of this article shall be construed as entitling the Contractor to compensation for delays due to inclement weather or for any other delay provided for in the contract, plans, or specifications.

If it becomes necessary to suspend work for an indefinite period, the Contractor shall store all materials in such manner that they will not become an obstruction nor become damaged in any way. The Contractor shall take every precaution to prevent damage or deterioration of the work performed and provide for normal drainage of the work. The Contractor shall erect temporary structures where necessary to provide for traffic on, to, or from the airport.

80-07 Determination and extension of contract time. The number of calendar shall be stated in the proposal and contract and shall be known as the Contract Time.

If the contract time requires extension for reasons beyond the Contractor's control, it shall be adjusted as follows:

80-07.1 Contract time based on calendar days. Contract Time based on calendar days shall consist of the number of calendar days stated in the contract counting from the effective date of the Notice to Proceed and including all Saturdays, Sundays, holidays, and non-work days. All calendar days elapsing between the effective dates of the Owner’s orders to suspend and resume all work, due to causes not the fault of the Contractor, shall be excluded.

At the time of final payment, the contract time shall be increased in the same proportion as the cost of the actually completed quantities bears to the cost of the originally estimated quantities in the proposal. Such increase in the contract time shall not consider either cost of work or the extension of contract time that has been covered by a change order or supplemental agreement. Charges against the contract time will cease as of the date of final acceptance.

80-08 Failure to complete on time. For each calendar day or working day, as specified in the contract, that any work remains uncompleted after the contract time (including all extensions and adjustments as provided in paragraph 80-07, *Determination and Extension of Contract Time*) the sum specified in the contract and proposal as liquidated damages (LD) will be deducted from any money due or to become due the Contractor or their own surety. Such deducted sums shall not be deducted as a penalty but shall be considered as liquidation of a reasonable portion of damages including but not limited to additional engineering services that will be incurred by the Owner should the Contractor fail to complete the work in the time provided in their contract.

Schedule	Liquidated Damages Cost	Allowed Construction Time
B1	\$1,500/calendar day or portion thereof	120 Calendar Days
B2	\$1,500/calendar day or portion thereof	160 Calendar Days

The maximum construction time allowed for Schedules B1 and B2 will be the sum of the time allowed for individual schedules but not more than 280 calendar days. Permitting the Contractor to continue and finish the work or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, will in no way operate as a wavier on the part of the Owner of any

80-09 Default and termination of contract. The Contractor shall be considered in default of their contract and such default will be considered as cause for the Owner to terminate the contract for any of the following reasons, if the Contractor:

- a. Fails to begin the work under the contract within the time specified in the Notice to Proceed, or
- b. Fails to perform the work or fails to provide sufficient workers, equipment and/or materials to assure completion of work in accordance with the terms of the contract, or
- c. Performs the work unsuitably or neglects or refuses to remove materials or to perform anew such work as may be rejected as unacceptable and unsuitable, or
- d. Discontinues the execution of the work, or
- e. Fails to resume work which has been discontinued within a reasonable time after notice to do so, or
- f. Becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency, or

- g. Allows any final judgment to stand against the Contractor unsatisfied for a period of 10 days, or
- h. Makes an assignment for the benefit of creditors, or
- i. For any other cause whatsoever, fails to carry on the work in an acceptable manner.

Should the Owner consider the Contractor in default of the contract for any reason above, the Owner shall immediately give written notice to the Contractor and the Contractor's surety as to the reasons for considering the Contractor in default and the Owner's intentions to terminate the contract.

If the Contractor or surety, within a period of 10 days after such notice, does not proceed in accordance therewith, then the Owner will, upon written notification from the RPR of the facts of such delay, neglect, or default and the Contractor's failure to comply with such notice, have full power and authority without violating the contract, to take the execution of the work out of the hands of the Contractor. The Owner may appropriate or use any or all materials and equipment that have been mobilized for use in the work and are acceptable and may enter into an agreement for the completion of said contract according to the terms and provisions thereof, or use such other methods as in the opinion of the RPR will be required for the completion of said contract in an acceptable manner.

All costs and charges incurred by the Owner, together with the cost of completing the work under contract, will be deducted from any monies due or which may become due the Contractor. If such expense exceeds the sum which would have been payable under the contract, then the Contractor and the surety shall be liable and shall pay to the Owner the amount of such excess.

80-10 Termination for national emergencies. The Owner shall terminate the contract or portion thereof by written notice when the Contractor is prevented from proceeding with the construction contract as a direct result of an Executive Order of the President with respect to the execution of war or in the interest of national defense.

When the contract, or any portion thereof, is terminated before completion of all items of work in the contract, payment will be made for the actual number of units or items of work completed at the contract price or as mutually agreed for items of work partially completed or not started. No claims or loss of anticipated profits shall be considered.

Reimbursement for organization of the work, and other overhead expenses, (when not otherwise included in the contract) and moving equipment and materials to and from the job will be considered, the intent being that an equitable settlement will be made with the Contractor.

Acceptable materials, obtained or ordered by the Contractor for the work and that are not incorporated in the work shall, at the option of the Contractor, be purchased from the Contractor at actual cost as shown by receipted bills and actual cost records at such points of delivery as may be designated by the RPR.

Termination of the contract or a portion thereof shall neither relieve the Contractor of their responsibilities for the completed work nor shall it relieve their surety of its obligation for and concerning any just claim arising out of the work performed.

80-11 Work area, storage area and sequence of operations. The Contractor shall obtain approval from the RPR prior to beginning any work in all areas of the airport. No operating runway, taxiway, or air operations area (AOA) shall be crossed, entered, or obstructed while it is operational. The Contractor shall plan and coordinate work in accordance with the approved CSPP and SPCD.

END OF SECTION 80

SECTION 90 MEASUREMENT AND PAYMENT

90-01 Measurement of quantities. All work completed under the contract will be measured by the RPR, or their authorized representatives, using United States Customary Units of Measurement.

The method of measurement and computations to be used in determination of quantities of material furnished and of work performed under the contract will be those methods generally recognized as conforming to good engineering practice.

Unless otherwise specified, longitudinal measurements for area computations will be made horizontally, and no deductions will be made for individual fixtures (or leave-outs) having an area of 9 square feet (0.8 square meters) or less. Unless otherwise specified, transverse measurements for area computations will be the neat dimensions shown on the plans or ordered in writing by the RPR.

Unless otherwise specified, all contract items which are measured by the linear foot such as electrical ducts, conduits, pipe culverts, underdrains, and similar items shall be measured parallel to the base or foundation upon which such items are placed.

The term “lump sum” when used as an item of payment will mean complete payment for the work described in the contract. When a complete structure or structural unit (in effect, “lump sum” work) is specified as the unit of measurement, the unit will be construed to include all necessary fittings and accessories.

When requested by the Contractor and approved by the RPR in writing, material specified to be measured by the cubic yard (cubic meter) may be weighed, and such weights will be converted to cubic yards (cubic meters) for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the RPR and shall be agreed to by the Contractor before such method of measurement of pay quantities is used.

Measurement and Payment Terms

Term	Description
Excavation and Embankment Volume	In computing volumes of excavation, the average end area method will be used unless otherwise specified.
Measurement and Proportion by Weight	The term “ton” will mean the short ton consisting of 2,000 pounds (907 kg) avoirdupois. All materials that are measured or proportioned by weights shall be weighed on accurate, independently certified scales by competent, qualified personnel at locations designated by the RPR. If material is shipped by rail, the car weight may be accepted provided that only the actual weight of material is paid for. However, car weights will not be acceptable for material to be passed through mixing plants. Trucks used to haul material being paid for by weight shall be weighed empty daily at such times as the RPR directs, and each truck shall bear a plainly legible identification mark.
Measurement by Volume	Materials to be measured by volume in the hauling vehicle shall be hauled in approved vehicles and measured therein at the point of delivery. Vehicles for this purpose may be of any size or type acceptable for the materials hauled, provided that the body is of such shape that the actual contents may be readily and accurately determined. All vehicles shall be loaded to at least their water level capacity, and all loads shall be leveled when the vehicles arrive at the point of delivery.
Asphalt Material	Asphalt materials will be measured by the gallon (liter) or ton (kg). When measured by volume, such volumes will be measured at 60°F (16°C) or will be corrected to the volume at 60°F (16°C) using ASTM D1250 for asphalts. Net certified scale weights or weights based on certified volumes in the case of rail

Term	Description
	shipments will be used as a basis of measurement, subject to correction when asphalt material has been lost from the car or the distributor, wasted, or otherwise not incorporated in the work. When asphalt materials are shipped by truck or transport, net certified weights by volume, subject to correction for loss or foaming, will be used for computing quantities.
Cement	Cement will be measured by the ton (kg) or hundredweight (km).
Structure	Structures will be measured according to neat lines shown on the plans or as altered to fit field conditions.
Timber	Timber will be measured by the thousand feet board measure (MFBM) actually incorporated in the structure. Measurement will be based on nominal widths and thicknesses and the extreme length of each piece.
Plates and Sheets	The thickness of plates and galvanized sheet used in the manufacture of corrugated metal pipe, metal plate pipe culverts and arches, and metal cribbing will be specified and measured in decimal fraction of inch.
Miscellaneous Items	When standard manufactured items are specified such as fence, wire, plates, rolled shapes, pipe conduit, etc., and these items are identified by gauge, unit weight, section dimensions, etc., such identification will be considered to be nominal weights or dimensions. Unless more stringently controlled by tolerances in cited specifications, manufacturing tolerances established by the industries involved will be accepted.
Scales	<p>Scales must be tested for accuracy and serviced before use. Scales for weighing materials which are required to be proportioned or measured and paid for by weight shall be furnished, erected, and maintained by the Contractor, or be certified permanently installed commercial scales. Platform scales shall be installed and maintained with the platform level and rigid bulkheads at each end. Scales shall be accurate within 0.5% of the correct weight throughout the range of use. The Contractor shall have the scales checked under the observation of the RPR before beginning work and at such other times as requested. The intervals shall be uniform in spacing throughout the graduated or marked length of the beam or dial and shall not exceed 0.1% of the nominal rated capacity of the scale, but not less than one pound (454 grams). The use of spring balances will not be permitted.</p> <p>In the event inspection reveals the scales have been “overweighing” (indicating more than correct weight) they will be immediately adjusted. All materials received subsequent to the last previous correct weighting-accuracy test will be reduced by the percentage of error in excess of 0.5%.</p> <p>In the event inspection reveals the scales have been under-weighing (indicating less than correct weight), they shall be immediately adjusted. No additional payment to the Contractor will be allowed for materials previously weighed and recorded.</p> <p>Beams, dials, platforms, and other scale equipment shall be so arranged that the operator and the RPR can safely and conveniently view them.</p> <p>Scale installations shall have available ten standard 50-pound (2.3 km) weights for testing the weighing equipment or suitable weights and devices for other approved equipment.</p> <p>All costs in connection with furnishing, installing, certifying, testing, and maintaining scales; for furnishing check weights and scale house; and for all other items specified in this subsection, for the weighing of materials for proportioning or payment, shall be included in the unit contract prices for the</p>

Term	Description
	various items of the project.
Rental Equipment	Rental of equipment will be measured by time in hours of actual working time and necessary traveling time of the equipment within the limits of the work. Special equipment ordered in connection with extra work will be measured as agreed in the change order or supplemental agreement authorizing such work as provided in paragraph 90-05 <i>Payment for Extra Work</i> .
Pay Quantities	When the estimated quantities for a specific portion of the work are designated as the pay quantities in the contract, they shall be the final quantities for which payment for such specific portion of the work will be made, unless the dimensions of said portions of the work shown on the plans are revised by the RPR. If revised dimensions result in an increase or decrease in the quantities of such work, the final quantities for payment will be revised in the amount represented by the authorized changes in the dimensions.

90-02 Scope of payment. The Contractor shall receive and accept compensation provided for in the contract as full payment for furnishing all materials, for performing all work under the contract in a complete and acceptable manner, and for all risk, loss, damage, or expense of whatever character arising out of the nature of the work or the execution thereof, subject to the provisions of Section 70, paragraph 70-18, *No Waiver of Legal Rights*.

When the “basis of payment” subsection of a technical specification requires that the contract price (price bid) include compensation for certain work or material essential to the item, this same work or material will not also be measured for payment under any other contract item which may appear elsewhere in the contract, plans, or specifications.

90-03 Compensation for altered quantities. When the accepted quantities of work vary from the quantities in the proposal, the Contractor shall accept as payment in full, so far as contract items are concerned, payment at the original contract price for the accepted quantities of work actually completed and accepted. No allowance, except as provided for in Section 40, paragraph 40-02, *Alteration of Work and Quantities*, will be made for any increased expense, loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the Contractor which results directly from such alterations or indirectly from their own unbalanced allocation of overhead and profit among the contract items, or from any other cause.

90-04 Payment for omitted items. As specified in Section 40, paragraph 40-03, *Omitted Items*, the RPR shall have the right to omit from the work (order nonperformance) any contract item, except major contract items, in the best interest of the Owner.

Should the RPR omit or order nonperformance of a contract item or portion of such item from the work, the Contractor shall accept payment in full at the contract prices for any work actually completed and acceptable prior to the RPR’s order to omit or non-perform such contract item.

Acceptable materials ordered by the Contractor or delivered on the work prior to the date of the RPR’s order will be paid for at the actual cost to the Contractor and shall thereupon become the property of the Owner.

In addition to the reimbursement hereinbefore provided, the Contractor shall be reimbursed for all actual costs incurred for the purpose of performing the omitted contract item prior to the date of the RPR’s order. Such additional costs incurred by the Contractor must be directly related to the deleted contract item and shall be supported by certified statements by the Contractor as to the nature the amount of such costs.

90-05 Payment for extra work. Extra work, performed in accordance with Section 40, paragraph 40-04, *Extra Work*, will be paid for at the contract prices or agreed prices specified in the change order or supplemental agreement authorizing the extra work.

90-06 Partial payments. Partial payments will be made to the Contractor at least once each month as the work progresses. Said payments will be based upon estimates, prepared by the RPR, of the value of the

work performed and materials complete and in place, in accordance with the contract, plans, and specifications. Such partial payments may also include the delivered actual cost of those materials stockpiled and stored in accordance with paragraph 90-07, *Payment for Materials on Hand*. No partial payment will be made when the amount due to the Contractor since the last estimate amounts to less than five hundred dollars.

a. From the total of the amount determined to be payable on a partial payment, five percent of such total amount will be deducted and retained by the Owner for protection of the Owner's interests. Unless otherwise instructed by the Owner, the amount retained by the Owner will be in effect until the final payment is made except as follows:

(1) Contractor may request release of retainage on work that has been partially accepted by the Owner in accordance with Section 50-14. Contractor must provide a certified invoice to the RPR that supports the value of retainage held by the Owner for partially accepted work.

(2) In lieu of retainage, the Contractor may exercise at its option the establishment of an escrow account per paragraph 90-08.

b. The Contractor is required to pay all subcontractors for satisfactory performance of their contracts no later than 30 days after the Contractor has received a partial payment. Contractor must provide the Owner evidence of prompt and full payment of retainage held by the prime Contractor to the subcontractor within 30 days after the subcontractor's work is satisfactorily completed. A subcontractor's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished and documented as required by the Owner. When the Owner has made an incremental acceptance of a portion of a prime contract, the work of a subcontractor covered by that acceptance is deemed to be satisfactorily completed.

c. When at least 95% of the work has been completed to the satisfaction of the RPR, the RPR shall, at the Owner's discretion and with the consent of the surety, prepare estimates of both the contract value and the cost of the remaining work to be done. The Owner may retain an amount not less than twice the contract value or estimated cost, whichever is greater, of the work remaining to be done. The remainder, less all previous payments and deductions, will then be certified for payment to the Contractor.

It is understood and agreed that the Contractor shall not be entitled to demand or receive partial payment based on quantities of work in excess of those provided in the proposal or covered by approved change orders or supplemental agreements, except when such excess quantities have been determined by the RPR to be a part of the final quantity for the item of work in question.

No partial payment shall bind the Owner to the acceptance of any materials or work in place as to quality or quantity. All partial payments are subject to correction at the time of final payment as provided in paragraph 90-09, *Acceptance and Final Payment*.

The Contractor shall deliver to the Owner a complete release of all claims for labor and material arising out of this contract before the final payment is made. If any subcontractor or supplier fails to furnish such a release in full, the Contractor may furnish a bond or other collateral satisfactory to the Owner to indemnify the Owner against any potential lien or other such claim. The bond or collateral shall include all costs, expenses, and attorney fees the Owner may be compelled to pay in discharging any such lien or claim.

90-07 Payment for materials on hand. Partial payments may be made to the extent of the delivered cost of materials to be incorporated in the work, provided that such materials meet the requirements of the contract, plans, and specifications and are delivered to acceptable sites on the airport property or at other sites in the vicinity that are acceptable to the Owner. Such delivered costs of stored or stockpiled materials may be included in the next partial payment after the following conditions are met:

a. The material has been stored or stockpiled in a manner acceptable to the RPR at or on an approved site.

b. The Contractor has furnished the RPR with acceptable evidence of the quantity and quality of such stored or stockpiled materials.

c. The Contractor has furnished the RPR with satisfactory evidence that the material and transportation costs have been paid.

d. The Contractor has furnished the Owner legal title (free of liens or encumbrances of any kind) to the material stored or stockpiled.

e. The Contractor has furnished the Owner evidence that the material stored or stockpiled is insured against loss by damage to or disappearance of such materials at any time prior to use in the work.

It is understood and agreed that the transfer of title and the Owner's payment for such stored or stockpiled materials shall in no way relieve the Contractor of their responsibility for furnishing and placing such materials in accordance with the requirements of the contract, plans, and specifications.

In no case will the amount of partial payments for materials on hand exceed the contract price for such materials or the contract price for the contract item in which the material is intended to be used.

No partial payment will be made for stored or stockpiled living or perishable plant materials.

The Contractor shall bear all costs associated with the partial payment of stored or stockpiled materials in accordance with the provisions of this paragraph.

90-08 Payment of withheld funds. At the Contractor's option, if an Owner withholds retainage in accordance with the methods described in paragraph 90-06 *Partial Payments*, the Contractor may request that the Owner deposit the retainage into an escrow account. The Owner's deposit of retainage into an escrow account is subject to the following conditions:

a. The Contractor shall bear all expenses of establishing and maintaining an escrow account and escrow agreement acceptable to the Owner.

b. The Contractor shall deposit to and maintain in such escrow only those securities or bank certificates of deposit as are acceptable to the Owner and having a value not less than the retainage that would otherwise be withheld from partial payment.

c. The Contractor shall enter into an escrow agreement satisfactory to the Owner.

d. The Contractor shall obtain the written consent of the surety to such agreement.

90-09 Acceptance and final payment. When the contract work has been accepted in accordance with the requirements of Section 50, paragraph 50-15, *Final Acceptance*, the RPR will prepare the final estimate of the items of work actually performed. The Contractor shall approve the RPR's final estimate or advise the RPR of the Contractor's objections to the final estimate which are based on disputes in measurements or computations of the final quantities to be paid under the contract as amended by change order or supplemental agreement. The Contractor and the RPR shall resolve all disputes (if any) in the measurement and computation of final quantities to be paid within 30 calendar days of the Contractor's receipt of the RPR's final estimate. If, after such 30-day period, a dispute still exists, the Contractor may

approve the RPR's estimate under protest of the quantities in dispute, and such disputed quantities shall be considered by the Owner as a claim in accordance with Section 50, paragraph 50-16, *Claims for Adjustment and Disputes*.

After the Contractor has approved, or approved under protest, the RPR's final estimate, and after the RPR's receipt of the project closeout documentation required in paragraph 90-11, *Contractor Final Project Documentation*, final payment will be processed based on the entire sum, or the undisputed sum in case of approval under protest, determined to be due the Contractor less all previous payments and all amounts to be deducted under the provisions of the contract. All prior partial estimates and payments shall be subject to correction in the final estimate and payment.

If the Contractor has filed a claim for additional compensation under the provisions of Section 50, paragraph 50-16, *Claims for Adjustments and Disputes*, or under the provisions of this paragraph, such claims will be considered by the Owner in accordance with local laws or ordinances. Upon final adjudication of such claims, any additional payment determined to be due the Contractor will be paid pursuant to a supplemental final estimate.

90-10 Construction warranty.

a. In addition to any other warranties in this contract, the Contractor warrants that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, workmanship, or design furnished, or performed by the Contractor or any subcontractor or supplier at any tier.

b. This warranty shall continue for a period of one year from the date of final acceptance of the work, except as noted. If the Owner takes possession of any part of the work before final acceptance, this warranty shall continue for a period of one year from the date the Owner takes possession.

c. The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to Owner real or personal property, when that damage is the result of the Contractor's failure to conform to contract requirements; or any defect of equipment, material, workmanship, or design furnished by the Contractor.

d. The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for one year from the date of repair or replacement.

e. The Owner will notify the Contractor, in writing, within seven (7) days after the discovery of any failure, defect, or damage.

f. If the Contractor fails to remedy any failure, defect, or damage within 14 days after receipt of notice, the Owner shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

g. With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall: (1) Obtain all warranties that would be given in normal commercial practice; (2) Require all warranties to be executed, in writing, for the benefit of the Owner, as directed by the Owner, and (3) Enforce all warranties for the benefit of the Owner.

h. This warranty shall not limit the Owner's rights with respect to latent defects, gross mistakes, or fraud.

90-11 Contractor Final Project Documentation. Approval of final payment to the Contractor is contingent upon completion and submittal of the items listed below. The final payment will not be approved until the RPR approves the Contractor's final submittal. The Contractor shall:

- a. Provide two (2) copies of all manufacturers warranties specified for materials, equipment, and installations.
- b. Provide weekly payroll records (not previously received) from the general Contractor and all subcontractors.
- c. Complete final cleanup in accordance with Section 40, paragraph 40-08, *Final Cleanup*.
- d. Complete all punch list items identified during the Final Inspection.
- e. Provide complete release of all claims for labor and material arising out of the Contract.
- f. Provide a certified statement signed by the subcontractors, indicating actual amounts paid to the Disadvantaged Business Enterprise (DBE) subcontractors and/or suppliers associated with the project.
- g. When applicable per state requirements, return copies of sales tax completion forms.
- h. Manufacturer's certifications for all items incorporated in the work.
- i. All required record drawings, as-built drawings or as-constructed drawings.
- j. Project Operation and Maintenance (O&M) Manual(s).
- k. Security for Construction Warranty.
- l. Equipment commissioning documentation submitted, if required.

END OF SECTION 90

STANDARD CLAUSES FOR NEW YORK STATE CONTRACTS

PROJECT CERTIFICATIONS AND FORMS

TECHNICAL SPECIFICATIONS

Item M-110 Engineer's Field Office

DESCRIPTION

110-1.1 This item shall consist of providing, furnishing and maintaining an approved, insulated weatherproof building with lavatory for the exclusive use of and occupancy by the Engineer and inspection staff.

No construction shall be started until the building is erected, furnished as herein specified and made available to the Engineer. The building shall be erected at a location designated by the Engineer and shall be separate from any building used by the Contractor.

The Engineer's office shall be maintained fully operational a minimum of two weeks prior to construction and shall be so continued if required by the Engineer for a period not to exceed one month (30 calendar days) after the last day of contract work.

FURNITURE AND EQUIPMENT

110-2.1 The Contractor shall furnish the following equipment:

- 1 - Suitable office desk with drawers, locks and 2 sets of keys
- 1 - Office swivel chair
- 2 - Office straight back chairs
- 3 - Folding chairs
- 1 - 30" x 60" adjustable drafting table with drawers
- 1 - 3" x 7" - 6" plan table
- 1 - 3' x 6' cork bulletin board
- 1 - 4-drawer fire-resistant legal size steel filing cabinet with locks and keys
- 1 - Plain paper copier/scanner/fax machine (capable of copying/scanning/faxing 11x17)
- 2 - Waste baskets
- 1 - Fully equipped first aid kit, wall-mounted
- 1 - Fire extinguisher, dry chemical type for A, B, C ratings
- 1 - Coffee Maker
- 1 - Refrigerator
- 1 - Cellular Phone (Smart Phone with Data Plan)
- 1 - Water Cooler with Hot/Cold supply
- 1 - Laptop Computer with printer
- 1 - Tablet
- 1 - Two-way Airfield Radio

The above furniture need not be new but must be in first class serviceable condition. Acceptability of all items shall be determined by the Engineer.

The Contractor shall provide, paper, ink for the printer and copier, bottle water and other supplies throughout the duration of the project.

The Contractor shall provide all servicing, repairs, replacement and upkeep on the Contractor supplied equipment throughout the project duration.

110-2.2 Computer Requirements. The field office shall be equipped with a NEW laptop computer. The laptop computer shall have the following additional factory installed requirements, or approved equals:

- 14" High Definition Display
- Intel Core i5-5300U vPro Processor (2.3 GHz)
- 8 GB SDRAM
- 100 GB Hard Drive (or Greater)
- Intel HD Graphics 5500
- Intel Dual Band Wireless-AC 7265.802.11a/b/g/n/ac
- Li-ion Battery (11-hour life)

In addition, computer shall be furnished with a charger, a laptop carrying case and a travel mouse.

The computer shall include the following software: Windows 7 Professional, Microsoft Office (2007 or later, Full Version), and ADOBE Acrobat X Pro.

The PC system shall be set up, configured and operational prior to the start of construction. At the conclusion of the project the PC system will be returned to the Contractor with its hard drive wipe clean.

110-2.3 Tablet Requirements. The field office shall be equipped with a NEW 4th Generation, 64 GB, Wi-Fi and Cellular - Apple Ipad. The Ipad shall be capable of connecting over Wi-Fi and cellular data networks. The Contractor shall also provide a LifeProof Nuud Case and Cover/Stand for the Ipad (waterproof, dirt proof, snow proof and shock proof cover). At the conclusion of the project the tablet will be returned to the Contractor.

110-2.3 Phone Service. One portable cellular "smart phone" with data plan shall be provided. This phone shall have a private line and shall be solely for the use of the Engineer and his staff. It shall include 12 volt and wall chargers and a belt clip/case. Telephone service shall be maintained throughout the project.

110-2.4 Printer/Scanner/Copier. The Contractor shall furnish, install and maintain a multi-function copier/printer/fax/scanner, HP Officejet Pro 8600 e-All-in-One Printer - N911a or approved equal. The copying machine shall have a dedicated telephone line for use as a fax machine. The Contractor shall furnish all of the copy paper, ink cartridges and other supplies required by the Engineer. The Contractor shall maintain the unit fully operational and in proper adjustment for the duration of required use of the Engineer's office. At the conclusion of the project the copier will be turned over to the Owner in good working condition, along with 6 new black ink cartridges (HP 950XL) and 3 new color ink cartridges (HP 951XL).

110-2.5 Sanitary Facilities. The Contractor shall provide sanitary facilities near the Engineer's field office for the sole use of the Engineer and inspection personnel. The sanitary facilities shall be maintained and cleaned throughout the duration of the project on a weekly basis.

CONSTRUCTION DETAILS

110-3.1 The Engineer's office shall have a minimum floor area of 400 square feet with minimum ceiling height of 7 feet. It shall be divided into two rooms and shall have at least 6 windows with adequate locks.

Two exterior doors, with locks, shall be provided. For each exterior door there shall be provided two sets of keys for the Engineer. Screens shall be provided for all exterior windows and doors and shades shall be provided for windows and doors.

The type and layout of the heating system shall be approved by the Engineer. It shall be adequate to maintain the inside space of the building to a temperature of 70 degrees F with an outside temperature of -20 degrees F. The Contractor shall provide any fuel required for heating purposes.

For summer use, one air conditioning unit shall be provided for each room in the building. The air conditioning system shall be capable of maintaining an inside room temperature of 60 degrees F with an outside air temperature of 100 degrees F.

The office shall have an adequate lighting installation including lighting fixtures, outlets, lamps, wiring, switches and like work as required.

A wall cabinet with mirror shall also be provided. Water shall be supplied from a potable source. All utilities shall be provided and maintained by the Contractor.

110-3.2 The Contractor shall provide and maintain an adequate gravel, cinder or slag driveway to the office and a parking area adequate for four cars adjacent to the office.

110-3.3 Upon authorization by the Engineer, the Contractor shall remove the Engineer's office and fully restore the site to a neat appearance compatible with the area including removal and/or capping of utilities, removal of temporary roadway and walkway surfaces, and restoration of turf in the affected areas.

METHOD OF MEASUREMENT

110-4.1 Payment will be made at the lump sum price bid for this item.

BASIS OF PAYMENT

110-5.1 The lump sum price bid shall include the cost of all labor, equipment, materials, personal computer, site rental and utility charges necessary to complete the work. 50% of the lump sum amount shall be paid as soon as the office is operational to the satisfaction of the Engineer. The remaining 50% shall be paid in equal monthly percentage installments during the contract, with the final installment to be paid on the Final Estimate.

Payment will be made under:

M-110-5.1 Engineer's Field Office Lump Sum

END OF ITEM M-110

Item M-120 Maintenance and Protection of Traffic

DESCRIPTION

120-1.1 GENERAL. This work shall consist of maintaining aircraft and vehicular traffic and protecting the public from damage to person and property within the limits of and for the duration of the Contract.

The requirements of Section 619, as specified in the New York State Department of Transportation Standard Specifications latest issue, plus all revisions and addenda pertaining thereto, shall apply with the following modifications and/or revisions as described below.

The following additional items are specifically included without limiting the generality implied by these Specifications and the Contract Drawings.

- Providing qualified watchmen and/or flag persons as necessary or as directed by the Engineer.
- Providing a power broom and water truck.
- Installation, maintenance and removal of temporary orange safety fencing, including all “Wildlife Species Protection” signage associated with the orange safety fencing.
- Staged or phased construction
- Locating and marking of existing underground utilities within the project work areas.
- Installation, maintenance, and removal of any temporary asphalt pavement tapers and/or transitions in accordance with NYSDOT Standards.
- Installation, maintenance, and removal of any temporary drainage, including, ditches, swales, piping and de-watering of work areas.
- Installation, maintenance, and removal of any temporary haul roads and maintenance and repair of existing access roads.
- Installation, maintenance and removal of temporary or permanent security fencing and gates including padlocks.
- Alteration, adjustment, maintenance of any drainage inlets, structures or systems necessary to maintain highway drainage during construction.
- Cleaning and maintenance of all areas within construction limits and haul routes or areas disturbed by the Contractor's operation via power broom trucks.

- Restoration of all surfaces disturbed because of the Contractor's Operations, which are not otherwise paid for.

METHOD OF MEASUREMENT

120-2.1 Payment for maintenance and protection of traffic will be made on a lump sum basis. The lump sum shall include all items required to satisfy this Specification.

BASIS OF PAYMENT

120-3.1 The lump sum price bid for maintenance and protection of traffic shall include all equipment, materials, and labor necessary to adequately and safely maintain and protect traffic.

In the event the contract completion date is extended, no additional payment will be made for maintenance and protection of traffic.

Progress payments will be made for this item in proportion to the total amount of contract work completed, less any deductions for unsatisfactory maintenance and protection of traffic.

No payment will be made under maintenance and protection of traffic for each calendar day during which there are substantial deficiencies in compliance with the Specification requirements of any subsection of this Section as determined by the Engineer. The amount of such calendar day non-payment will be determined by dividing the lump sum amount bid for maintenance and protection of traffic by the number of calendar days between the date the Contractor commences work and the date of completion as designated in this proposal, without regard to any extension of time.

If the Contractor fails to maintain and protect traffic adequately and safely for a period of 4 hours, the Owner shall correct the adverse conditions by any means it deems appropriate and shall deduct the cost of the corrective work from any monies due the Contractor. The cost of this work shall be in addition to the liquidated damages and non-payment for maintenance and protection of traffic listed above.

However, where major non-conformance with the requirement of this Specification is noted by the Engineer and prompt Contractor compliance is deemed not to be obtainable, all contract work may be stopped by direct order of the Engineer regardless of whether corrections are made by the Owner as stated in the paragraph above.

Payment will be made under:

Item M-120-3.1	Maintenance and Protection of Traffic	Lump Sum
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END OF ITEM M-120

Item M-150 Project Survey and Stakeout

DESCRIPTION

150-1.1 Under this item, the Contractor shall do all necessary surveying required to construct all elements of the Project as shown on the Contract Drawings and specified in the Proposal and Specifications. The stakeout survey shall proceed immediately following the award of the Contract and shall be expeditiously progressed to completion in a manner and at a rate satisfactory to the Engineer. The Contractor shall keep the Engineer fully informed as to the progress of the stakeout survey. All survey work shall be provided under the direction of a New York State licensed land surveyor.

MATERIALS

150-2.1 All instruments, equipment, stakes and any other material necessary to perform the work satisfactorily shall be provided by the Contractor.

All stakes used shall be of a type approved by the Engineer. It shall be the Contractor's responsibility to maintain these stakes in their proper position and location at all times.

The Contractor shall make available to the Engineer upon request a rod, level, and tripod. The rod shall be 15 foot in length with hundredth of a foot graduation. The level shall be self-leveling and have documentation demonstrating it has been calibrated within 90 days of the project's commencement. All provided equipment shall be in good working order and maintained by the Contractor throughout the course of the project.

CONSTRUCTION DETAILS

150-3.1 The exact position of all work shall be established from control points, baseline traverse points or other points of similar nature which are shown on the Contract Drawings and/or modified by the Engineer. Any error, apparent discrepancy or absence in or of data shown or required for accurately accomplishing the stakeout survey shall be referred to the Engineer for interpretation or furnishing when such is observed or required.

The Contractor shall be responsible for the accuracy of his work and shall maintain all reference points, stakes, etc., throughout the life of the Contract. Damaged or destroyed points, benchmarks, or stakes, or any reference points made inaccessible by the progress of the construction, shall be replaced or transferred by the Contractor. Any of the above points which may be destroyed or damage shall be transferred by the Contractor before they are damaged or destroyed. All control points shall be referenced by ties to acceptable objects and recorded. Any alterations or revisions to the ties shall be so noted and the information furnished to the Engineer immediately. All stakeout survey work shall be referenced to the control points shown on the Contract Drawings. All computations necessary to establish the exact position of the work from control points shall be made and preserved by the Contractor. All computations, survey notes and other records necessary to accomplish the work, shall be neatly made. Such computations, survey notes and other records shall be made available to the Engineer and shall become the property of the Owner. **The Engineer shall**

be made aware of any discrepancies between the topographical information shown on the contract drawings and the contractor survey before construction commences.

The owner will not be obligated to pay the contractor additional payment for costs incurred by topographical discrepancies unless the contractor notifies the engineer before construction starts.

The Engineer may check all or any portion of the stakeout survey work or notes made by the Contractor. Any necessary correction to the work shall be made immediately by the Contractor. Such checking by the Engineer shall not relieve the Contractor of any responsibilities for the accuracy or completeness of his work.

During the progress of the construction work, the Contractor will be required to furnish all of the surveying and stakeout incidental to the proper location for the work.

METHOD OF MEASUREMENT

150-4.1 Payment will be made at the lump sum price bid for this item.

BASIS OF PAYMENT

150-5.1 The lump sum price bid shall include the cost of furnishing all labor, equipment, instruments, and all other material necessary to satisfactorily complete the Project surveying and stakeout. Partial payments shall be made at the discretion of the Engineer as the work progresses.

Payment will be made under:

Item	M-150-5.1	Project Survey and Stakeout	Lump Sum
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END OF ITEM M-150

Item C-102 Temporary Air and Water Pollution, Soil Erosion, and Siltation Control

DESCRIPTION

102-1. This item shall consist of temporary control measures as shown on the plans or as ordered by the Resident Project Representative (RPR) during the life of a contract to control pollution of air and water, soil erosion, and siltation through the use of silt fences, berms, dikes, dams, sediment basins, fiber mats, gravel, mulches, grasses, slope drains, and other erosion control devices or methods.

Temporary erosion control shall be in accordance with the approved erosion control plan; the approved NYSDEC/USACOE Joint Permit, and the Mitigation Management and Protection Plan. The temporary erosion control measures contained herein shall be coordinated with the permanent erosion control measures specified as part of this contract to the extent practical to assure economical, effective, and continuous erosion control throughout the construction period.

Temporary control may include work outside the construction limits such as borrow pit operations, equipment and material storage sites, waste areas, and temporary plant sites.

MATERIALS

102-2.1 Grass. Grass shall not compete with the plants sown later for permanent cover and shall be a quick-growing species (such as ryegrass, Italian ryegrass, or cereal grasses) suitable to the area providing a temporary cover.

102-2.2 Mulches. Mulches may be hay, straw, fiber mats, netting, bark, wood chips, or other suitable material reasonably clean and free of noxious weeds and deleterious materials per Item T-908.

102-2.3 Fertilizer. Fertilizer shall be a standard commercial grade and shall conform to all federal and state regulations and to the standards of the Association of Official Agricultural Chemists.

102-2.4 Slope drains. Not Used.

102-2.5 Silt fence. Silt fence shall consist of polymeric filaments which are formed into a stable network such that filaments retain their relative positions. Synthetic filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of six months of expected usable construction life. Silt fence shall meet the requirements of ASTM D6461.

102-2.6 Other. All other materials shall meet commercial grade standards and shall be approved by the RPR before being incorporated into the project.

CONSTRUCTION REQUIREMENTS

102-3.1 General. In the event of conflict between these requirements and pollution control laws, rules, or regulations of other federal, state, or local agencies, the more restrictive laws, rules, or regulations shall apply.

The RPR shall be responsible for assuring compliance to the extent that construction practices, construction operations, and construction work are involved.

102-3.2 Schedule. Prior to the start of construction, the Contractor shall submit schedules in accordance with the Construction Contract and the plans for accomplishment of temporary and permanent erosion control work for clearing and grubbing; grading; and planting. The Contractor shall also submit a proposed method of erosion and dust control on haul roads and borrow pits and a plan for disposal of waste materials. Work shall not be started until the erosion control schedules and methods of operation for the applicable construction have been accepted by the RPR.

102-3.3 Construction details. The Contractor will be required to incorporate all permanent erosion control features into the project at the earliest practicable time as outlined in the plans and approved Permits. Except where future construction operations will damage slopes, the Contractor shall perform the permanent seeding and mulching and other specified slope protection work in stages, as soon as substantial areas of exposed slopes can be made available. Temporary erosion and pollution control measures will be used to correct conditions that develop during construction that were not foreseen during the design stage; that are needed prior to installation of permanent control features; or that are needed temporarily to control erosion that develops during normal construction practices, but are not associated with permanent control features on the project.

Where erosion may be a problem, schedule and perform clearing and grubbing operations so that grading operations and permanent erosion control features can follow immediately if project conditions permit. Temporary erosion control measures are required if permanent measures cannot immediately follow grading operations. The RPR shall limit the area of clearing and grubbing, excavation, borrow, and embankment operations in progress, commensurate with the Contractor's capability and progress in keeping the finish grading, mulching, seeding, and other such permanent control measures current with the accepted schedule. If seasonal limitations make such coordination unrealistic, temporary erosion control measures shall be taken immediately to the extent feasible and justified as directed by the RPR.

The Contractor shall provide immediate permanent or temporary pollution control measures to minimize contamination of adjacent streams or other watercourses, lakes, ponds, or other areas of water impoundment as directed by the RPR. If temporary erosion and pollution control measures are required due to the Contractor's negligence, carelessness, or failure to install permanent controls as a part of the work as scheduled or directed by the RPR, the work shall be performed by the Contractor and the cost shall be incidental to this item.

The RPR may increase or decrease the area of erodible earth material that can be exposed at any time based on an analysis of project conditions.

The erosion control features installed by the Contractor shall be maintained by the Contractor during the construction period.

Provide temporary structures whenever construction equipment must cross watercourses at frequent intervals. Pollutants such as fuels, lubricants, bitumen, raw sewage, wash water from concrete mixing operations, and other harmful materials shall not be discharged into any waterways, impoundments or into natural or manmade channels.

102-3.4 Installation, maintenance and removal of silt fence. Silt fences shall extend a minimum of 16 inches and a maximum of 34 inches above the ground surface. Posts shall be set no more than 10 feet on center. Filter fabric shall be cut from a continuous roll to the length required minimizing joints where possible. When joints are necessary, the fabric shall be spliced at a support post with a minimum 12-inch overlap and securely sealed. A trench shall be excavated approximately 6 inches deep by 4 inches wide on the upslope side of the silt fence. The trench shall be backfilled and the soil compacted over the silt fence fabric. The Contractor shall remove and dispose of silt that accumulates during construction and prior to establishment of permanent erosion control. The fence shall be maintained in good working condition until permanent erosion control is established. Silt fence shall be removed upon approval of the RPR.

METHOD OF MEASUREMENT

102-4.1 Temporary seeding and mulching will be performed as scheduled or directed by the RPR. Completed and accepted work will be measured by the square yard.

102-4.2 Construction Entrances will be installed as shown on the plans or directed by the RPR. Completed and accepted work will be measured by each until installed.

102-4.3 Installation and removal of silt fence will be performed as scheduled or directed by the RPR. Completed and accepted work will be measured by the linear foot.

102-4.4 Control work performed for protection of construction areas outside the construction limits, such as borrow and waste areas, haul roads, equipment and material storage sites, and temporary plant sites, will not be measured and paid for directly but shall be considered as a subsidiary obligation of the Contractor.

BASIS OF PAYMENT

102-5.1 Temporary seeding and mulching payment shall be made at the contract unit price per square yard. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.

102-5.2 Construction Entrances payment shall be made at the contract unit price per each. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.

102-5.3 Installation and removal of silt fence payment shall be made at the contract unit price per linear foot. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.

102-5.4 Where other directed work falls within the specifications for a work item that has a contract price, the units of work shall be measured and paid for at the contract unit price bid for the various items.

Temporary control features not covered by contract items that are ordered by the RPR will be paid for in accordance with Section 90, paragraph 90-05 *Payment for Extra Work*.

Payment will be made under:

Item C-102-5.1	Temporary Seeding and Mulching	square yard
Item C-102-5.2	Construction Entrance	each
Item C-102-5.3	Installation and Removal of Silt Fence	linear foot

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

Advisory Circulars (AC)

AC 150/5200-33	<i>Hazardous Wildlife Attractants on or Near Airports</i>
AC 150/5370-2	<i>Operational Safety on Airports During Construction</i>

ASTM International (ASTM)

ASTM D6461	<i>Standard Specification for Silt Fence Materials</i>
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United States Department of Agriculture (USDA)

FAA/USDA Wildlife Hazard Management at Airports, A Manual for Airport Personnel

END OF ITEM C-102

Item C-105 Mobilization

DESCRIPTION

105-1 Description. This item of work shall consist of, but is not limited to, work and operations necessary for the movement of personnel, equipment, material and supplies to and from the project site for work on the project except as provided in the contract as separate pay items.

105-2 Mobilization limit. Mobilization shall be limited to **five (5%)** percent of the total project cost.

105-3 Posted notices. Prior to commencement of construction activities, the Contractor must post the following documents in a prominent and accessible place where they may be easily viewed by all employees of the prime Contractor and by all employees of subcontractors engaged by the prime Contractor: Equal Employment Opportunity (EEO) Poster “Equal Employment Opportunity is the Law” in accordance with the Office of Federal Contract Compliance Programs Executive Order 11246, as amended; Davis Bacon Wage Poster (WH 1321) - DOL “Notice to All Employees” Poster; and Applicable Davis-Bacon Wage Rate Determination. These notices must remain posted until final acceptance of the work by the Owner.

105-4 Engineer/RPR field office. Not Used

METHOD OF MEASUREMENT

105-5 Basis of measurement and payment. Based upon the contract lump sum price for “Mobilization” partial payments will be allowed as follows:

- a. With first pay request, 10%.
- b. When 10% or more of the original contract is earned, an additional 25%.
- c. When 50% or more of the original contract is earned, an additional 50%.
- d. After Final Inspection, Staging area clean-up and delivery of all Project Closeout materials as required by Section 90, paragraph 90-11, *Contractor Final Project Documentation*, the final 15%.

BASIS OF PAYMENT

105-6 Payment will be made under:

Item C-105-6.1 Mobilization lump sum

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

Office of Federal Contract Compliance Programs (OFCCP)

Executive Order 11246, as amended

EEOC-P/E-1 – Equal Employment Opportunity is the Law Poster

United States Department of Labor, Wage and Hour Division (WHD)
WH 1321 – Employee Rights under the Davis-Bacon Act Poster

END OF ITEM C-105

Item P-151 Clearing and Grubbing

DESCRIPTION

151-1.1 This item shall consist of clearing or clearing and grubbing, including the disposal of materials, for all areas within the limits designated on the plans or as required by the Resident Project Representative (RPR).

Clearing and grubbing shall consist of clearing the surface of the ground of the designated areas of all trees, stumps, down timber, logs, snags, brush, undergrowth, hedges, heavy growth of grass or weeds, fences, structures, debris, and rubbish of any nature, natural obstructions or such material which in the opinion of the RPR is unsuitable for the foundation of strips, pavements, or other required structures, including the grubbing of stumps, roots, matted roots, foundations, and the disposal from the project of all spoil materials resulting from clearing and grubbing.

CONSTRUCTION METHODS

151-2.1 General. The areas denoted on the plans to be cleared and grubbed shall be staked on the ground by the Contractor as indicated on the plans.

The removal of existing structures and utilities required to permit orderly progress of work shall be accomplished by local agencies, unless otherwise shown on the plans. Whenever a telephone pole, pipeline, conduit, sewer, roadway, or other utility is encountered and must be removed or relocated, the Contractor shall advise the RPR who will notify the proper local authority or owner to secure prompt action.

151-2.1.1 Disposal. All materials removed by clearing or by clearing and grubbing shall be disposed of outside the project's limits at the Contractor's responsibility, except when otherwise directed by the RPR.

When burning of material is permitted, it shall be burned under the constant overseeing of a watchman to assure the surrounding vegetation and other adjacent property is not jeopardized. Burning shall be done in accordance with all applicable federal, state and local laws, ordinances, and regulations. The Contractor shall notify the agency having jurisdiction and obtain all approvals in writing before starting any burning operations.

When the Contractor is required to locate a disposal area outside the project area, the Contractor shall obtain and file with the RPR permission in writing from the property owner for the use of private property for this purpose.

151-2.1.2 Blasting. Blasting shall not be allowed.

151-2.3 Clearing and grubbing. In areas designated to be cleared and grubbed, all stumps, roots, buried logs, brush, grass, and other unsatisfactory materials as indicated on the plans, shall be removed, except where embankments exceeding 3-1/2 feet in depth. All unsatisfactory materials shall be removed. Tap roots and other projections over 1-1/2 inches in diameter shall be grubbed out to a depth of at least 18 inches below the finished subgrade or slope elevation.

All holes in embankment areas remaining after the grubbing operation shall have the sides of the holes flattened to facilitate filling with acceptable material and compacting as required in Item P-152. The same procedure shall be applied to all holes remaining after grubbing in areas where the depth of holes exceeds the depth of the proposed excavation.

Care shall be taken to avoid damage to and preserve any trees marked as “to remain”. Construction fencing will be posted around the drip line (edge of canopy) of these trees to preserve the majority of the root mass and prevent any mechanical damage to the trunk. Surrounding lower grades will be blended to the drip line grade of the save trees to avoid sheer cuts. Stumps remaining within the drip line of save trees may be left by the contractor if removing them would damage the roots.

METHOD OF MEASUREMENT

151-3.1 The quantities of clearing and grubbing as shown by the limits on the plans shall be the number of acres or fractions thereof of land specifically cleared and grubbed.

BASIS OF PAYMENT

151-4.1 Payment shall be made at the contract unit price per acre for clearing and grubbing. This price shall be full compensation for furnishing all materials and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item P-151-4.1 Clearing and grubbing - per acre

END OF ITEM P-151

Item P-152 Excavation, Subgrade, and Embankment

DESCRIPTION

152-1.1 This item covers excavation and disposal of all material within the limits of the work required to strip the topsoil from the mitigation sites and rough grade the areas in accordance with these specifications and in conformity to the dimensions and typical sections shown on the plans.

The intent of the mitigation plan is to avoid steep slopes and wetlands during the construction process (both for the purpose of habitat creation and optimization of future maintenance), grading will focus on following existing land contours. Excluding the possibility of overlaying deep topsoil pockets, grading will be restricted to creating a smooth seed bed and filling potential potholes from root ball removal and ruts from equipment tracks. Compaction generated on the logging roads/skid trails and loading or stockpile areas will be amended at this time by deep tillage. Logging roads/skid trails will be graded to blend into the surrounding grades. Walking trails along the perimeter of the mitigation boundaries will be preserved. In addition, existing interior walking trails on the East and South Sites will be preserved and realigned to maintain access to the existing perimeter trails.

152-1.2 Classification. All topsoil stripped and material excavated shall be Unclassified Excavation and shall consist of the excavation and disposal of all material, regardless of its nature.

CONSTRUCTION METHODS

152-2.1 General. Before beginning excavation and grading in any area, the area shall be cleared or cleared and grubbed in accordance with Item P-151.

When the Contractor's excavating operations encounter artifacts of historical or archaeological significance, the operations shall be temporarily discontinued and the RPR notified per Section 70, paragraph 70-20. At the direction of the RPR, the Contractor shall excavate the site in such a manner as to preserve the artifacts encountered and allow for their removal. Such excavation will be paid for as extra work.

If it is necessary to interrupt existing surface drainage, sewers or under-drainage, conduits, utilities, or similar underground structures, the Contractor shall be responsible for and shall take all necessary precautions to preserve them or provide temporary services. When such facilities are encountered, the Contractor shall notify the RPR, who shall arrange for their removal if necessary. The Contractor, at their own expense, shall satisfactorily repair or pay the cost of all damage to such facilities or structures that may result from any of the Contractor's operations during the period of the contract.

a. Blasting. Blasting shall not be allowed.

152-2.2 Excavation. No excavation shall be started until the work has been staked out by the Contractor and the RPR has obtained from the Contractor, the survey notes of the elevations and measurements of the ground surface. The Contractor and RPR shall agree that the original ground lines shown on the original topographic mapping are accurate, or agree to any adjustments made to the original ground lines.

All areas to be graded shall be stripped of vegetation and topsoil. Topsoil shall be stockpiled for removal by the Contractor.

If the mineral surface of certain low-elevation areas is likely to lie too close to the water table following topsoil removal, they will be left undisturbed. Such areas may become mesic to wetland environments, undesirable habitat favoring species competitive to blue lupine. In unlikely situations where the topsoil layer is several feet deep, removal may prove inefficient or undesirable. Such an area can be covered with a minimum depth of 18" of adjacent mineral sand.

The grade shall be maintained so that the surface is well drained at all times.

b. Undercutting. Rock, shale, hardpan, loose rock, boulders, or other material unsatisfactory for use shall be excavated to a minimum depth of 12 inches below the subgrade or to the depth specified by the RPR. Muck, peat, matted roots, or other yielding material, unsatisfactory shall be removed to the depth specified. Unsuitable materials shall be disposed off-site. This excavated material shall be paid for at the contract unit price per cubic yard. The excavated area shall be backfilled with suitable material obtained from the grading operations or borrow areas and compacted to specified densities. The necessary backfill will constitute a part of the embankment. Where rock cuts are made, backfill with select material. Any pockets created in the rock surface shall be drained in accordance with the details shown on the plans. Undercutting will be paid as unclassified excavation.

c. Over-break. Over-break, including slides, is that portion of any material displaced or loosened beyond the finished work as planned or authorized by the RPR. All over-break shall be graded or removed by the Contractor and disposed of as directed by the RPR. The RPR shall determine if the displacement of such material was unavoidable and their own decision shall be final. Payment will not be made for the removal and disposal of over-break that the RPR determines as avoidable. Unavoidable over-break will be classified as "Unclassified Excavation."

152-2.3 Finishing and protection of subgrade. Finishing and protection of the rough grade is incidental to this item. Grading and compacting of the rough shall be performed so that it will drain readily. All low areas, holes or depressions in the subgrade shall be brought to grade. Scarifying, blading, rolling and other methods shall be performed to provide a thoroughly compacted subgrade shaped to the lines and grades shown on the plans. All ruts or rough places that develop in the completed subgrade shall be graded, re-compact, and retested. The Contractor shall protect the rough grade from damage and limit hauling over the finished subgrade to only traffic essential for construction purposes.

152-2.4 Haul. All hauling will be considered a necessary and incidental part of the work. The Contractor shall include the cost in the contract unit price for the pay of items of work involved. No payment will be made separately or directly for hauling on any part of the work.

The Contractor's equipment shall not cause damage to any excavated surface, compacted lift or to the subgrade as a result of hauling operations. Any damage caused as a result of the Contractor's hauling operations shall be repaired at the Contractor's expense.

The Contractor shall be responsible for providing, maintaining and removing any haul roads or routes within or outside of the work area, and shall return the affected areas to their former condition, unless otherwise authorized in writing by the Owner. No separate payment will be made for any work or materials associated with providing, maintaining and removing haul roads or routes.

152-2.5 Surface Tolerances. In those areas on which rough grade has been established, the surface shall be tested for smoothness and accuracy of grade. Any portion lacking the required smoothness or failing in accuracy of grade shall be scarified to a depth of at least 3 inches, reshaped and re-compact to grade until the required smoothness and accuracy are obtained and approved by the RPR. The Contractor shall perform all final smoothness and grade checks in the presence of the RPR. Any deviation in surface tolerances shall be corrected by the Contractor at the Contractor's expense.

a. Grade. The grade shall be measured on a 100-foot grid and shall be within +/-0.5 feet of the specified grade.

152-2.6 Topsoil. Upon completion of grading operations, stockpiled topsoil shall become the property of the Contractor and shall be removed from the site.

METHOD OF MEASUREMENT

152-3.1 Measurement for payment specified by the cubic yard shall be computed by the comparison of digital terrain model (DTM) surfaces for the existing conditions of the area of grading to the final conditions of the site stripped of all topsoil, subject to verification by the RPR.

152-3.2 The quantity of unclassified excavation to be paid for shall be the number of cubic yards measured in its original position. Measurement shall not include the quantity of materials excavated without authorization beyond normal slope lines, or the quantity of material used for purposes other than those directed.

BASIS OF PAYMENT

152-4.1 Unclassified excavation payment shall be made at the contract unit price per cubic yard. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item P-152-4.1	Unclassified Excavation - per cubic yard
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REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

American Association of State Highway and Transportation Officials (AASHTO)

AASHTO T-180	Standard Method of Test for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop
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ASTM International (ASTM)

ASTM D698	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft ³ (600 kN-m/m ³))
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ASTM D1556	Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method
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ASTM D1557	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft ³ (2700 kN-m/m ³))
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ASTM D6938	Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
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Advisory Circulars (AC)

AC 150/5370-2	Operational Safety on Airports During Construction Software
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Software

FAARFIELD	– FAA Rigid and Flexible Iterative Elastic Layered Design
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U.S. Department of Transportation

FAA RD-76-66

Design and Construction of Airport Pavements on Expansive Soils

END OF ITEM P-152

ITEM S-600 RESTORATION PLANTINGS

DESCRIPTION

600-1.1 This work consists of furnishing, planting and caring for plants as specified in the contract documents. This work shall include all labor, equipment, and material necessary for the care, planting operations, and establishment necessary to complete the work as specified. The goal of the Restoration Planting is to create a successful habitat for the Karner Blue Butterfly.

This item will include: **Native Seeding**, applied to restoration areas by use of a tractor or UTV-drawn seed drill from mid-March to mid-May; **Enhancement Planting**, specified tree and shrub plantings planted in Spring, no later than May 1; and **Nursery Establishment**, a 1.5-acre plot near the gated entrance to serve as a seed production nursery for blue lupine.

All Restoration Planting shall be conducted by a NYSDEC approved planter with 5-years of successful field experience working on ecological restoration of native wildflowers and plants for the establishment of Karner Blue Butterfly habitat in the greater Capital District area.

MATERIALS

600-2.1 General. Materials shall meet the requirements specified in the Mitigation Management and Protection Plan.

a. Plants

1. Nomenclature. The common and scientific nomenclature for plants shall be in conformity with the American Association of Nurserymen's currently recognized authorities on botanical nomenclature.

2. Quality and Size. Plants, including root spread and ball size, shall be in accordance with the current edition of "American Standard for Nursery Stock (ANSI Z60.1)," unless otherwise specified in the contract documents. All plants shall have a normal habit of growth and be typically characteristic of their respective kinds. The specified plant sizes shall be the minimum size allowed and shall include plants from that size up to but not including the next larger size. Plants shall not be pruned at the time of digging or before delivery and no plants shall be cut back from larger sizes to meet the sizes specified. Plants shall be free from injury, insect damage, infestation and disease. Plants shall be nursery grown unless otherwise specified and bear evidence of proper nursery care, including adequate transplanting and root pruning. Plants specified from collected sources shall be clean, sound stock, free from decayed stumps and from fire injury.

Container grown material, including container sizes and soil, shall be as specified in the Contract Documents.

Containers shall be sufficiently rigid to hold the ball shapes and protect the root balls during handling and shipping. Container grown plants shall have been grown in the container long enough for new fibrous roots to have developed so that the root ball is firm and will retain its shape and hold together when removed from the container. The plants shall be in a healthy growing condition with tops which are of good quality, and shall have been adequately hardened off before shipment.

Specimen plants shall be as specified in the Contract Documents.

3. Digging Plants. Plants shall be dug with care and skill immediately before shipment. Digging shall avoid all possible injury to, or loss of roots, but when required, roots cut shall be cleanly cut. No cold storage plants will be accepted unless approved in writing prior to delivery. Plants stored temporarily shall be properly heeled in or otherwise protected from injury.

4. Root Protection. After plants are dug, their roots shall be protected from injury such as caused by heat, sun, wind and freezing temperatures. All bare roots of trees, shrubs and vines shall be puddled at the time of digging unless otherwise approved. Puddling shall be done in a wet clay mixture, of a quality to adhere to all parts of the root system. Roots of bare root plants which have been thoroughly covered at the time of digging with an anti-desiccant will not require puddling. Bare roots shall be further protected by wrapping in wet straw, moss, burlap or other suitable material.

5. Transportation. Tarpaulins or other covers shall be placed over plants transported by open trucks or by open freight cars. Closed trucks and closed railroad cars shall be ventilated to avoid overheating and the doors shall be kept closed during shipment to prevent plants from drying. The heads of trees shall be tied in carefully to prevent fracturing or breaking the branches. Trunks and branches shall be adequately supported and padded to avoid scraping or bruising.

600-2.2 Native Seeding. The Contractor shall be responsible for furnishing the vendor with a copy of the appropriate contract documents containing the plant material specifications. Seeds shall meet the following requirements:

a. **Plantings.** The following is a list of acceptable plantings and standard plant specifications for acceptance:

Native Seeding Mix				
Botanical Name	Common Name	oz/acre	lb/acre	Seeds psf
<i>Anemone virginiana</i>	Tall anemone	3	0.19	1.93
<i>Apocynum cannabinum</i>	Indian hemp	1.8	0.11	0.83
<i>Asclepias syriaca</i>	Common milkweed	4	0.25	0.39
<i>Asclepias tuberosa</i>	Butterfly milkweed	8	0.50	0.79
<i>Ceanothus americanus</i>	New Jersey tea	2.9	0.18	0.51
<i>Lupinus perennis</i>	Blue lupine	56	3.50	1.27
<i>Monarda punctata</i>	Horse mint	1.95	0.12	4.03
<i>Schizachyrium scoparius</i>	Little bluestem	11.61	0.73	4.00
<i>Solidago nemoralis</i>	Old-field goldenrod	0.05	0.00	0.34
		89.31	5.58	14.09

All seeds shall be sourced from local plants harvested from sources approved by the NYSDEC for use at the Mitigation site, or purchased from an approved seed vendor.

- b. **Substitutions.** No change of size, kind or quality of plants as specified will be accepted except upon written approval of the engineer.
- c. **Inoculation.** Blue lupine and New Jersey tea seed will be inoculated with the mycorrhizal fungus or rhizobium soil bacterium appropriate for each species.

600-2.3 Enhanced Planting. The Contractor shall be responsible for furnishing the vendor with a copy of the appropriate contract documents containing the plant material specifications. Shrubs and trees shall meet the following requirements:

- a. **Plantings.** The following is a list of acceptable plantings and standard plant specifications for acceptance:

Enhanced Planting			
Botanical Name	Common Name	Height	Size
<i>Amelanchier spicata</i>	Dwarf serviceberry	12-24"	Bare root or #1
<i>Ceanothus americanus</i>	New Jersey tea	12-24"	Bare root or #1
<i>Gaylussacia baccata</i>	Black huckleberry	12-24"	Bare root or #1
<i>Pinus rigida</i>	Pitch pine	12-24"	Bare root or #1
<i>Prunus pumila depressa</i>	Dwarf sand cherry	12-24"	Bare root or #1
<i>Rubus flagellaris</i>	Dewberry	12-24"	Bare root or #1
<i>Salix humilis</i>	Prairie willow	12-24"	Bare root or #1
<i>Vaccinium angustifolium</i>	Dwarf blueberry	12-24"	Bare root or #1

All plants shall be sourced from local sources approved by the NYSDEC for use at the Mitigation site.

- b. **Substitutions.** No change of size, kind or quality of plants as specified will be accepted except upon written approval of the engineer.

600-2.4 Nursery Establishment. The Contractor shall be responsible for furnishing the vendor with a copy of the appropriate contract documents containing the plant material specifications. Seeds shall meet the following requirements:

- a. **Plantings.** The following is a list of acceptable seed specifications for acceptance:

Nursery Establishment	
Botanical Name	Common Name
<i>Lupinus perennis</i>	Blue lupine

All seeds shall be sourced from local plants harvested from sources approved by the NYSDEC for use at the Mitigation site.

- b. **Substitutions.** No change of size, kind or quality of plants as specified will be accepted except upon written approval of the engineer.

600-2.5 Planting Materials. Topsoil, organic materials, fertilizer, mulch and materials for the protection of plants shall meet the requirements specified in the New York State Department of Transportation Standard Specifications, latest issue, plus all revisions and addenda pertaining thereto and as further specified in the contract documents.

CONSTRUCTION

600-3.1 General

A. Delivery. The Contractor shall notify the Engineer at least two full working days before intended delivery of plants or planting materials, to the site. The Engineer shall be furnished legible copies of the certificates of inspection of plant materials and a copy of the invoice for each shipment showing point of origin, sizes, quantities, and kinds of materials supplied. Plants which fail to meet the specifications, as determined by the Engineer, will be rejected. All rejected plants shall be promptly removed from the project site.

B. Storage. All plants shall be properly protected from damage and drying out. Such protection shall include the time when the plants are in transit, being handled or in temporary storage. Bare root plants not planted immediately shall be puddled and heeled in. The bundles of heeled in plants shall be opened and the plants shall be spaced separately. The roots of the heeled in plants shall have their earth balls protected by earth, mulch or straw, or they may be heeled in. All plants not planted immediately shall be watered as approved by the Engineer.

600-3.2 Native Seeding

A. Planting Season. The planting seasons shall be completed between mid-March through mid-May. No planting shall be done when the soil is frozen or otherwise in an unsatisfactory condition for working as determined by the Engineer.

B. Application: Native seed will be applied to restoration areas by use of a tractor or UTV-drawn seed drill. The seed drill shall be equipped with boxes for small flowable, fluffy, and cover crop seeds, and shall be calibrated to blend the seed properly and delivered at the designated rate. All restoration areas accessible by tractor or UTV will be planted with the seed drill. Inaccessible pockets or boundary areas will be hand seeded and raked, ensuring proper seed to soil contact.

600-3.1 Enhanced Planting

A. Planting Season. The planting seasons shall be Spring, no later than May 1. No planting shall be done when the soil is frozen or otherwise in an unsatisfactory condition for working as determined by the Engineer.

B. Plant Depth. All plants shall be set plumb at such a level that they bear the same relation to the surface of the surrounding ground as they bore to the ground from which they were dug. Planting soil shall be carefully backfilled into plant pits in layers not to exceed 4 inches in depth, and shall be tamped to prevent voids and settling before additional planting soil is placed. Thorough watering shall accompany backfilling of planting soil unless otherwise approved. A saucer shall be formed around each plant pit as specified in the contract documents.

C. Balled Plants. Following placement in the plant pit, balled plants shall have all natural burlap cloth, ropes, wire baskets, twine, and non biodegradable woven and non woven fabrics completely removed from the upper one third ($\frac{1}{3}$) sides and top of the root ball to a maximum depth of 20 inches. There is no requirement to remove the fabric or basket from the bottom of the root ball.

D. Container Grown Plants. Container grown plants shall be removed from their containers. Roots which are matted or entangled shall be straightened or cut and removed. Encircling roots shall be cut in a vertical direction.

E. Bare Root Plants. Roots of bare root plants shall be properly spread out in a radial position and planting soil shall be carefully worked in among them. All dead, broken, frayed and twisted roots shall be cleanly cut off.

F. Shelters. When shelters are specified in the contract documents, the shelter material shall be a photo-degradable shrub shelter made of recycled HDPE.

G. Staking. The shrub shelters shall be staked utilizing a wooden/timber stake tied to the shelter utilizing prefitted biodegradable ties.

H. Layout. Locations for plants and outlines of areas to be planted shall be staked or marked out on the ground by the Contractor to the satisfaction of the Engineer before any plant pits or plant beds are dug.

I. Plant Pit Diameter. The minimum plant pit diameter shall bear the following relationship to the diameter of the root spread or root balls of the plants to be planted in them, unless otherwise specified in the contract documents.

Root Spread/Root Ball Diameter Plant Pit Diameter

Under 2.0 ft.	Twice the root spread or root ball diameter
From 2.0 ft. to 4.0 ft.	Equal to the root spread or root ball diam. plus 2.0 ft.
Over 4.0 ft.	One and one half times the root spread or root ball diameter

The sides of the plant pits shall be loose and friable at the time of planting.

600-3.4 Nursery Establishment

A. Planting Season. The planting seasons shall be completed between mid-March through mid-May. No planting shall be done when the soil is frozen or otherwise in an unsatisfactory condition for working as determined by the Engineer.

B. Application: Blue Lupine seed will be applied to the Nursey Establishment Area by use of a tractor or UTV-drawn seed drill. Inaccessible pockets or boundary areas will be hand seeded and raked, ensuring proper seed to soil contact.

600-3.5 Restoration. Areas disturbed by the planting operations shall be restored by disposing of excess soil, stones and rubbish such as twine, pruned limbs, tree wrap, containers, burlap and wire baskets as approved by the Engineer. Existing turf areas disturbed by planting operations shall be restored to a satisfactory condition which may include topsoil, regrading, fertilizing, seeding and mulching. All waste material generated as a result of the work shall be properly disposed of in accordance with law, rule or regulation, and in a manner approved by the Engineer.

600-3.6 Care of Planting.

A. General. Care of planting shall begin immediately after each plant is planted and shall continue until the final acceptance of the contract. Care of planting shall consist of keeping the plants in a healthy growing condition by watering, weeding, cultivating, pruning, applying approved antidesiccants and pesticides, and by other operations as necessary.

B. Care of Planting Work Schedule. The Contractor shall prepare and submit a Care of Planting Work Schedule to the Engineer for approval. The schedule shall identify how and when all other work specified under 600-3.6 Care of Planting will be accomplished. Exceptions to the approved schedule shall be subject to advance written approval of the Engineer.

C. Watering. All plants shall be watered as needed to maintain healthy plant growth.

D. Pruning. All dead, injured or diseased wood shall be removed in accordance with good horticulture practice.

E. Remedial Measures. In the event of the threat of serious damage from insect or diseases, the plants shall be treated by preventative or remedial measures according to good horticultural practice.

F. Removal and Replacement. At the conclusion of the essential portion of the planting work all plants shall be in a healthy, unimpaired and undamaged condition as determined by the Engineer. All plants that are dead, missing, or in an unhealthy or badly impaired condition, as determined by the Engineer, shall be removed and replaced with new, healthy plant material as specified. The Engineer shall inspect the plantings, accompanied by the Contractor and Owner's representative to identify unhealthy, damaged or dead plants at the time of Substantial Completion, and again 12 months after the date of Substantial Completion. The Contractor shall replace all plantings identified for replacement at no additional cost to the Owner. Replacement plantings shall be subject to the species requirements noted in the Contract Documents. An overall survival rate of 85% of the original plantings shall be obtained at the conclusion of the Warranty period 12 months after the date of Substantial Completion.

METHOD OF MEASUREMENT

600-4.1 Restoration Planting will be measured as one lump sum for the work completed in accordance with the contract documents.

BASIS OF PAYMENT

600-5.1 The lump sum for Restoration Planting as set forth in the contract shall include the cost of all labor, equipment, materials and incidentals, including the shrub shelters, and plant care required to complete the work specified.

Payment will be made under:

Item S-600-5.1 Restoration Planting – Lump Sum

END OF ITEM S-600

Item T-901 Seeding

DESCRIPTION

901-1.1 This item shall consist of soil preparation, seeding, liming, and fertilizing the areas shown on the plans or as directed by the RPR in accordance with these specifications.

MATERIALS

901-2.1 Seed. The species and application rates of grass, legume, and cover-crop seed furnished shall be those stipulated herein. Seed shall conform to the requirements of Federal Specification JJJ-S-181, Federal Specification, Seeds, Agricultural.

Seed shall be furnished separately or in mixtures in standard containers labeled in conformance with the Agricultural Marketing Service (AMS) Seed Act and applicable state seed laws with the seed name, lot number, net weight, percentages of purity and of germination and hard seed, and percentage of maximum weed seed content clearly marked for each kind of seed. The Contractor shall furnish the RPR duplicate signed copies of a statement by the vendor certifying that each lot of seed has been tested by a recognized laboratory for seed testing within six (6) months of date of delivery. This statement shall include: name and address of laboratory, date of test, lot number for each kind of seed, and the results of tests as to name, percentages of purity and of germination, and percentage of weed content for each kind of seed furnished, and, in case of a mixture, the proportions of each kind of seed. Wet, moldy, or otherwise damaged seed will be rejected.

Seeds shall be applied as follows:

Temporary Seeding

Seed mix shall be a turf type annual ryegrass (*Lolium multiflorum*) meeting the following criteria:

TABLE 901-2 TEMPORARY SEEDING					
Botanical Name	Common Name	Spring	Summer	Fall	Rate of Pure Live Seed Application (lb/acre)
<i>Lolium multiflorum</i>	Annual Ryegrass	X	X		30
<i>Avena sativa</i>	Common Oat		X		40
<i>Secale cereale</i>	Winter Rye			X	40

Temporary seed may be applied by seed drill, rotary spreader, hydro-seeder or by hand. If any areas are considered completed during the Spring season, temporary seeding may be applied in conjunction with native seed per Item-600.

Pure live seed (PLS) is the amount of living, viable seed in a larger total amount of seed. The amount of seed to be applied is obtained by using the purity and germination percentages from the label on the actual bag of seed to be used on the project. To calculate the amount of seed to be applied:

- a. Obtain the PLS factor by multiplying the seed label germination percentage times the seed label purity percentage;
- b. Divide the specified PLS rate by the PLS factor;
- c. Round off the result as approved.

For example, assume a PLS seeding rate of 300 lbs/acre is specified and the seed label shows a purity of 98 percent and germination of 90 percent. Multiply 0.98 by 0.90 to obtain a PLS factor of 0.88. The specified PLS rate of 300 lbs/acre, divided by the factor of 0.88, equals 340.91. Thus approximately 341 lbs/acre of total seed needs to be applied in order to meet a specified PLS seeding rate of 300 lbs/acre.

901-2.2 Lime. Lime shall be ground limestone containing not less than 85% of total carbonates, and shall be ground to such fineness that 90% will pass through a No. 20 (850 μ m) mesh sieve and 50% will pass through a No. 100 (150 μ m) mesh sieve. Coarser material will be acceptable, providing the rates of application are increased to provide not less than the minimum quantities and depth specified in the special provisions on the basis of the two sieve requirements above. Dolomitic lime or a high magnesium lime shall contain at least 10% of magnesium oxide. Lime shall be applied at the rate of 3050 pounds per acre at 100% Effective Neutralizing Value (ENV). To calculate actual rate, the rate of use equals the recommended rate divided by ENV (or lime source) times 100. All liming materials shall conform to the requirements of ASTM C602.

901-2.3 Fertilizer. Fertilizer shall be standard commercial fertilizers supplied separately or in mixtures containing the percentages of total nitrogen, available phosphoric acid, and water-soluble potash. They shall be applied at the rate and to the depth specified, and shall meet the requirements of applicable state laws. They shall be furnished in standard containers with name, weight, and guaranteed analysis of contents clearly marked thereon. No cyanamide compounds or hydrated lime shall be permitted in mixed fertilizers.

The fertilizers may be supplied in one of the following forms:

- a. A dry, free-flowing fertilizer suitable for application by a common fertilizer spreader;
- b. A finely-ground fertilizer soluble in water, suitable for application by power sprayers; or
- c. A granular or pellet form suitable for application by blower equipment.

Fertilizers shall be commercial fertilizer and shall be spread at the rate per acre: 43.5 lbs Nitrogen (N); 87 lbs Phosphoric Acid (P₂O₅); and 0 lbs of Potash (K₂O). This is the equivalent to a commercial 10-20-0 fertilizer applied at a rate of 435 lbs per acre.

901-2.4 Soil for repairs. The soil for fill and topsoiling of areas to be repaired shall be at least of equal quality to that which exists in areas adjacent to the area to be repaired. The soil shall be relatively free from large stones, roots, stumps, or other materials that will interfere with subsequent sowing of seed, compacting, and establishing turf, and shall be approved by the RPR before being placed.

CONSTRUCTION METHODS

901-3.1 Advance preparation and cleanup. After grading of areas has been completed and before applying fertilizer and ground limestone, areas to be seeded shall be raked or otherwise cleared of stones larger than 2 inches (50 mm) in any diameter, sticks, stumps, and other debris that might interfere with sowing of seed, growth of grasses, or subsequent maintenance of grass-covered areas. If any damage by erosion or other causes has occurred after the completion of grading and before beginning the application

of fertilizer and ground limestone, the Contractor shall repair such damage include filling gullies, smoothing irregularities, and repairing other incidental damage.

An area to be seeded shall be considered a satisfactory seedbed without additional treatment if it has recently been thoroughly loosened and worked to a depth of not less than 5 inches (125 mm) as a result of grading operations and, if immediately prior to seeding, the top 3 inches (75 mm) of soil is loose, friable, reasonably free from large clods, rocks, large roots, or other undesirable matter, and if shaped to the required grade.

When the area to be seeded is sparsely sodded, weedy, barren and unworked, or packed and hard, any grass and weeds shall first be cut or otherwise satisfactorily disposed of, and the soil then scarified or otherwise loosened to a depth not less than 5 inches (125 mm). Clods shall be broken and the top 3 inches (75 mm) of soil shall be worked into a satisfactory seedbed by discing, or by use of cultipackers, rollers, drags, harrows, or other appropriate means.

901-3.2 Dry application method.

a. Liming. Lime shall be applied separately and prior to the application of any fertilizer or seed and only on seedbeds that have previously been prepared as described above. The lime shall then be worked into the top 3 inches (75 mm) of soil after which the seedbed shall again be properly graded and dressed to a smooth finish.

b. Fertilizing. Following advance preparations and cleanup fertilizer shall be uniformly spread at the rate that will provide not less than the minimum quantity stated in paragraph 901-2.3

c. Seeding. Grass seed shall be sown at the rate specified in paragraph 901-2.1 immediately after fertilizing. The fertilizer and seed shall be raked within the depth range stated in the special provisions. Seeds of legumes, either alone or in mixtures, shall be inoculated before mixing or sowing, in accordance with the instructions of the manufacturer of the inoculant. When seeding is required at other than the seasons shown on the plans or in the special provisions, a cover crop shall be sown by the same methods required for grass and legume seeding.

d. Rolling. After the seed has been properly covered, the seedbed shall be immediately compacted by means of an approved lawn roller, weighing 40 to 65 pounds per foot (60 to 97 kg per meter) of width for clay soil (or any soil having a tendency to pack), and weighing 150 to 200 pounds per foot (223 to 298 kg per meter) of width for sandy or light soils.

901-3.3 Wet application method.

a. General. The Contractor may elect to apply seed and fertilizer (and lime, if required) by spraying them on the previously prepared seedbed in the form of an aqueous mixture and by using the methods and equipment described herein. The rates of application shall be as specified in the special provisions.

b. Spraying equipment. The spraying equipment shall have a container or water tank equipped with a liquid level gauge calibrated to read in increments not larger than 50 gallons (190 liters) over the entire range of the tank capacity, mounted so as to be visible to the nozzle operator. The container or tank shall also be equipped with a mechanical power-driven agitator capable of keeping all the solids in the mixture in complete suspension at all times until used.

The unit shall also be equipped with a pressure pump capable of delivering 100 gallons (380 liters) per minute at a pressure of 100 lb / sq inches (690 kPa). The pump shall be mounted in a line that will recirculate the mixture through the tank whenever it is not being sprayed from the nozzle. All pump passages and pipe lines shall be capable of providing clearance for 5/8 inch (16 mm) solids. The power unit for the pump and agitator shall have controls mounted so as to be accessible to the nozzle operator. There shall be an indicating pressure gauge connected and mounted immediately at the back of the nozzle.

The nozzle pipe shall be mounted on an elevated supporting stand in such a manner that it can be rotated through 360 degrees horizontally and inclined vertically from at least 20 degrees below to at least 60 degrees

above the horizontal. There shall be a quick-acting, three-way control valve connecting the recirculating line to the nozzle pipe and mounted so that the nozzle operator can control and regulate the amount of flow of mixture delivered to the nozzle. At least three different types of nozzles shall be supplied so that mixtures may be properly sprayed over distance varying from 20 to 100 feet (6 to 30 m). One shall be a close-range ribbon nozzle, one a medium-range ribbon nozzle, and one a long-range jet nozzle. For case of removal and cleaning, all nozzles shall be connected to the nozzle pipe by means of quick-release couplings.

In order to reach areas inaccessible to the regular equipment, an extension hose at least 50 feet (15 m) in length shall be provided to which the nozzles may be connected.

c. Mixtures. Lime, if required, shall be applied separately, in the quantity specified, prior to the fertilizing and seeding operations. Not more than 220 pounds (100 kg) of lime shall be added to and mixed with each 100 gallons (380 liters) of water. Seed and fertilizer shall be mixed together in the relative proportions specified, but not more than a total of 220 pounds (100 kg) of these combined solids shall be added to and mixed with each 100 gallons (380 liters) of water.

All water used shall be obtained from fresh water sources and shall be free from injurious chemicals and other toxic substances harmful to plant life. The Contractor shall identify to the RPR all sources of water at least two (2) weeks prior to use. The RPR may take samples of the water at the source or from the tank at any time and have a laboratory test the samples for chemical and saline content. The Contractor shall not use any water from any source that is disapproved by the RPR following such tests.

All mixtures shall be constantly agitated from the time they are mixed until they are finally applied to the seedbed. All such mixtures shall be used within two (2) hours from the time they were mixed or they shall be wasted and disposed of at approved locations.

d. Spraying. Lime, if required, shall be sprayed only upon previously prepared seedbeds. After the applied lime mixture has dried, the lime shall be worked into the top 3 inches (75 mm), after which the seedbed shall again be properly graded and dressed to a smooth finish.

Mixtures of seed and fertilizer shall only be sprayed upon previously prepared seedbeds on which the lime, if required, shall already have been worked in. The mixtures shall be applied by means of a high-pressure spray that shall always be directed upward into the air so that the mixtures will fall to the ground like rain in a uniform spray. Nozzles or sprays shall never be directed toward the ground in such a manner as might produce erosion or runoff.

Particular care shall be exercised to ensure that the application is made uniformly and at the prescribed rate and to guard against misses and overlapped areas. Proper predetermined quantities of the mixture in accordance with specifications shall be used to cover specified sections of known area.

Checks on the rate and uniformity of application may be made by observing the degree of wetting of the ground or by distributing test sheets of paper or pans over the area at intervals and observing the quantity of material deposited thereon.

On surfaces that are to be mulched as indicated by the plans or designated by the RPR, seed and fertilizer applied by the spray method need not be raked into the soil or rolled. However, on surfaces on which mulch is not to be used, the raking and rolling operations will be required after the soil has dried.

901-3.4 Maintenance of seeded areas. The Contractor shall protect seeded areas against traffic or other use by warning signs or barricades, as approved by the RPR. Surfaces gullied or otherwise damaged following seeding shall be repaired by regrading and reseeding as directed. The Contractor shall mow, water as directed, and otherwise maintain seeded areas in a satisfactory condition until final inspection and acceptance of the work.

When either the dry or wet application method outlined above is used for work done out of season, it will be required that the Contractor establish a good stand of grass of uniform color and density to the

satisfaction of the RPR. A grass stand shall be considered adequate when bare spots are one square foot (0.01 sq m) or less, randomly dispersed, and do not exceed 3% of the area seeded.

METHOD OF MEASUREMENT

901-4.1 Unless otherwise provided, all requirements of this section shall be considered incidental to, and included in the payments made for Item C-102-5.1 Temporary Seeding and Mulching.

BASIS OF PAYMENT

901-5.1 Unless otherwise provided, no separate payment will be made for the requirements of this section and the costs for work of this section shall be included in the lump sum price bid for Item C-102-5.1 Temporary Seeding and Mulching.

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

ASTM C602 Standard Specification for Agricultural Liming Materials

Federal Specifications (FED SPEC)

FED SPEC JJJ-S-181, Federal Specification, Seeds, Agricultural

Advisory Circulars (AC)

AC 150/5200-33 Hazardous Wildlife Attractants on or Near Airports

FAA/United States Department of Agriculture

Wildlife Hazard Management at Airports, A Manual for Airport Personnel

END OF ITEM T-901

Item T-908 Mulching

DESCRIPTION

908-1.1 This item shall consist of furnishing, hauling, placing, and securing mulch on surfaces indicated on the plans or designated by the RPR.

MATERIALS

908-2.1 Mulch material. Acceptable mulch shall be the materials listed below or any approved locally available material that is similar to those specified. Mulch shall be free from noxious weeds, mold, and other deleterious materials. Mulch materials, which contain matured seed of species that would volunteer and be detrimental to the proposed overseeding, or to surrounding farmland, will not be acceptable. Straw or other mulch material which is fresh and/or excessively brittle, or which is in such an advanced stage of decomposition as to smother or retard the planted grass, will not be acceptable.

a. (Not Used).

b. (Not Used).

c. (Not Used).

d. Manufactured mulch. Cellulose-fiber or wood-pulp mulch shall be products commercially available for use in spray applications.

e. Asphalt binder. Asphalt binder material shall conform to the requirements of ASTM D977, Type SS-1 or RS-1.

908-2.2 Inspection. The RPR shall be notified of sources and quantities of mulch materials available and the Contractor shall furnish him with representative samples of the materials to be used 30 days before delivery to the project. These samples may be used as standards with the approval of the RPR and any materials brought on the site that do not meet these standards shall be rejected.

CONSTRUCTION METHODS

908-3.1 Mulching. Before spreading mulch, all large clods, stumps, stones, brush, roots, and other foreign material shall be removed from the area to be mulched. Mulch shall be applied immediately after seeding. The spreading of the mulch may be by hand methods, blower, or other mechanical methods, provided a uniform covering is obtained.

Mulch material shall be furnished, hauled, and evenly applied on the area shown on the plans or designated by the RPR. Straw or hay shall be spread over the surface to a uniform thickness at the rate of 2 to 3 tons per acre (1800 - 2700 kg per acre) to provide a loose depth of not less than 1-1/2 inches (38 cm) nor more than 3 inches (75 mm). Other organic material shall be spread at the rate directed by the RPR. Mulch may be blown on the slopes and the use of cutters in the equipment for this purpose will be permitted to the extent that at least 95% of the mulch in place on the slope shall be 6 inches (150 mm) or more in length. When mulches applied by the blowing method are cut, the loose depth in place shall be not less than one inch (25 mm) nor more than 2 inches (50 mm).

908-3.2 Securing mulch. The mulch shall be held in place by light discing, a very thin covering of topsoil, pins, stakes, wire mesh, asphalt binder, or other adhesive material approved by the RPR. Where mulches have been secured by either of the asphalt binder methods, it will not be permissible to walk on the slopes after the binder has been applied. When an application of asphalt binder material is used to secure the mulch, the Contractor must take every precaution to guard against damaging or disfiguring structures or property on or adjacent to the areas worked and will be held responsible for any such damage resulting from the operation.

If the “peg and string” method is used, the mulch shall be secured by the use of stakes or wire pins driven into the ground on 5-foot (1.5-m) centers or less. Binder twine shall be strung between adjacent stakes in straight lines and crisscrossed diagonally over the mulch, after which the stakes shall be firmly driven nearly flush to the ground to draw the twine down tight onto the mulch.

908-3.3 Care and repair.

a. The Contractor shall care for the mulched areas until final acceptance of the project. Care shall consist of providing protection against traffic or other use by placing warning signs, as approved by the RPR, and erecting any barricades that may be shown on the plans before or immediately after mulching has been completed on the designated areas.

b. The Contractor shall be required to repair or replace any mulch that is defective or becomes damaged until the project is finally accepted. When, in the judgment of the RPR, such defects or damages are the result of poor workmanship or failure to meet the requirements of the specifications, the cost of the necessary repairs or replacement shall be borne by the Contractor.

c. If the “asphalt spray” method is used, all mulched surfaces shall be sprayed with asphalt binder material so that the surface has a uniform appearance. The binder shall be uniformly applied to the mulch at the rate of approximately 8 gallons (32 liters) per 1,000 square feet (100 sq m), or as directed by the RPR, with a minimum of 6 gallons (24 liters) and a maximum of 10 gallons (40 liters) per 1,000 square feet (100 sq m) depending on the type of mulch and the effectiveness of the binder securing it. Asphalt binder material may be sprayed on the mulched slope areas from either the top or the bottom of the slope. An approved spray nozzle shall be used. The nozzle shall be operated at a distance of not less than 4 feet (1.2 m) from the surface of the mulch and uniform distribution of the asphalt material shall be required. A pump or an air compressor of adequate capacity shall be used to ensure uniform distribution of the asphalt material.

d. If the “asphalt mix” method is used, the mulch shall be applied by blowing, and the asphalt binder material shall be sprayed into the mulch as it leaves the blower. The binder shall be uniformly applied to the mulch at the rate of approximately 8 gallons (32 liters) per 1,000 square feet (100 sq m) or as directed by the RPR, with a minimum of 6 gallons (24 liters) and a maximum of 10 gallons (40 liters) per 1,000 square feet (100 sq m) depending on the type of mulch and the effectiveness of the binder securing it.

METHOD OF MEASUREMENT

908-4.1 Unless otherwise provided, all requirements of this section shall be considered incidental to, and included in the payments made for the Item C-102 Temporary Air and Water Pollution, Soil Erosion, and Siltation Control.

BASIS OF PAYMENT

908-5.1 Unless otherwise provided, no separate payment will be made for the requirements of this section and the costs for work of this section shall be included in the lump sum price bid for Item C-102 Temporary Air and Water Pollution, Soil Erosion, and Siltation Control.

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

ASTM D977 Standard Specification for Emulsified Asphalt

Advisory Circulars (AC)

AC 150/5200-33 Hazardous Wildlife Attractants on or Near Airports

FAA/United States Department of Agriculture

Wildlife Hazard Management at Airports, A Manual for Airport Personnel

END OF ITEM T-908

**APPENDIX A – STANDARD CLAUSES FOR NEW YORK STATE
CONTRACTS**

APPENDIX A

STANDARD CLAUSES FOR NEW YORK STATE CONTRACTS

PLEASE RETAIN THIS DOCUMENT
FOR FUTURE REFERENCE.

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STANDARD CLAUSES FOR NYS CONTRACTS

The parties to the attached contract, license, lease, amendment or other agreement of any kind (hereinafter, "the contract" or "this contract") agree to be bound by the following clauses which are hereby made a part of the contract (the word "Contractor" herein refers to any party other than the State, whether a contractor, licenser, licensee, lessor, lessee or any other party):

1. EXECUTORY CLAUSE. In accordance with Section 41 of the State Finance Law, the State shall have no liability under this contract to the Contractor or to anyone else beyond funds appropriated and available for this contract.

2. NON-ASSIGNMENT CLAUSE. In accordance with Section 138 of the State Finance Law, this contract may not be assigned by the Contractor or its right, title or interest therein assigned, transferred, conveyed, sublet or otherwise disposed of without the State's previous written consent, and attempts to do so are null and void. Notwithstanding the foregoing, such prior written consent of an assignment of a contract let pursuant to Article XI of the State Finance Law may be waived at the discretion of the contracting agency and with the concurrence of the State Comptroller where the original contract was subject to the State Comptroller's approval, where the assignment is due to a reorganization, merger or consolidation of the Contractor's business entity or enterprise. The State retains its right to approve an assignment and to require that any Contractor demonstrate its responsibility to do business with the State. The Contractor may, however, assign its right to receive payments without the State's prior written consent unless this contract concerns Certificates of Participation pursuant to Article 5-A of the State Finance Law.

3. COMPTROLLER'S APPROVAL. In accordance with Section 112 of the State Finance Law (or, if this contract is with the State University or City University of New York, Section 355 or Section 6218 of the Education Law), if this contract exceeds \$50,000 (or the minimum thresholds agreed to by the Office of the State Comptroller for certain S.U.N.Y. and C.U.N.Y. contracts), or if this is an amendment for any amount to a contract which, as so amended, exceeds said statutory amount, or if, by this contract, the State agrees to give something other than money when the value or reasonably estimated value of such consideration exceeds \$10,000, it shall not be valid, effective or binding upon the State until it has been approved by the State Comptroller and filed in his office. Comptroller's approval of contracts let by the Office of General Services is required when such contracts exceed \$85,000 (State Finance Law Section 163.6-a). However, such pre-approval shall not be required for any contract established as a centralized contract through the Office of General Services or for a purchase order or other transaction issued under such centralized contract.

4. WORKERS' COMPENSATION BENEFITS. In accordance with Section 142 of the State Finance Law, this

contract shall be void and of no force and effect unless the Contractor shall provide and maintain coverage during the life of this contract for the benefit of such employees as are required to be covered by the provisions of the Workers' Compensation Law.

5. NON-DISCRIMINATION REQUIREMENTS. To the extent required by Article 15 of the Executive Law (also known as the Human Rights Law) and all other State and Federal statutory and constitutional non-discrimination provisions, the Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex (including gender identity or expression), national origin, sexual orientation, military status, age, disability, predisposing genetic characteristics, marital status or domestic violence victim status. Furthermore, in accordance with Section 220-e of the Labor Law, if this is a contract for the construction, alteration or repair of any public building or public work or for the manufacture, sale or distribution of materials, equipment or supplies, and to the extent that this contract shall be performed within the State of New York, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, disability, sex, or national origin: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. If this is a building service contract as defined in Section 230 of the Labor Law, then, in accordance with Section 239 thereof, Contractor agrees that neither it nor its subcontractors shall by reason of race, creed, color, national origin, age, sex or disability: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. Contractor is subject to fines of \$50.00 per person per day for any violation of Section 220-e or Section 239 as well as possible termination of this contract and forfeiture of all moneys due hereunder for a second or subsequent violation.

6. WAGE AND HOURS PROVISIONS. If this is a public work contract covered by Article 8 of the Labor Law or a building service contract covered by Article 9 thereof, neither Contractor's employees nor the employees of its subcontractors may be required or permitted to work more than the number of hours or days stated in said statutes, except as otherwise provided in the Labor Law and as set forth in prevailing wage and supplement schedules issued by the State Labor Department. Furthermore, Contractor and its subcontractors must pay at least the prevailing wage rate and pay or provide the prevailing supplements, including the premium rates for overtime pay, as determined by the State Labor Department in accordance with the Labor Law. Additionally, effective April 28, 2008, if this is a public work contract covered by Article 8 of the Labor Law, the Contractor understands and agrees that the filing of payrolls in a manner consistent with Subdivision 3-a of Section 220 of the Labor Law shall be a condition precedent to payment by the State of

any State approved sums due and owing for work done upon the project.

7. NON-COLLUSIVE BIDDING CERTIFICATION. In accordance with Section 139-d of the State Finance Law, if this contract was awarded based upon the submission of bids, Contractor affirms, under penalty of perjury, that its bid was arrived at independently and without collusion aimed at restricting competition. Contractor further affirms that, at the time Contractor submitted its bid, an authorized and responsible person executed and delivered to the State a non-collusive bidding certification on Contractor's behalf.

8. INTERNATIONAL BOYCOTT PROHIBITION. In accordance with Section 220-f of the Labor Law and Section 139-h of the State Finance Law, if this contract exceeds \$5,000, the Contractor agrees, as a material condition of the contract, that neither the Contractor nor any substantially owned or affiliated person, firm, partnership or corporation has participated, is participating, or shall participate in an international boycott in violation of the federal Export Administration Act of 1979 (50 USC App. Sections 2401 et seq.) or regulations thereunder. If such Contractor, or any of the aforesaid affiliates of Contractor, is convicted or is otherwise found to have violated said laws or regulations upon the final determination of the United States Commerce Department or any other appropriate agency of the United States subsequent to the contract's execution, such contract, amendment or modification thereto shall be rendered forfeit and void. The Contractor shall so notify the State Comptroller within five (5) business days of such conviction, determination or disposition of appeal (2NYCRR 105.4).

9. SET-OFF RIGHTS. The State shall have all of its common law, equitable and statutory rights of set-off. These rights shall include, but not be limited to, the State's option to withhold for the purposes of set-off any moneys due to the Contractor under this contract up to any amounts due and owing to the State with regard to this contract, any other contract with any State department or agency, including any contract for a term commencing prior to the term of this contract, plus any amounts due and owing to the State for any other reason including, without limitation, tax delinquencies, fee delinquencies or monetary penalties relative thereto. The State shall exercise its set-off rights in accordance with normal State practices including, in cases of set-off pursuant to an audit, the finalization of such audit by the State agency, its representatives, or the State Comptroller.

10. RECORDS. The Contractor shall establish and maintain complete and accurate books, records, documents, accounts and other evidence directly pertinent to performance under this contract (hereinafter, collectively, "the Records"). The Records must be kept for the balance of the calendar year in which they were made and for six (6) additional years thereafter. The State Comptroller, the Attorney General and any other person or entity authorized to conduct an examination, as well as the agency or agencies involved in this

contract, shall have access to the Records during normal business hours at an office of the Contractor within the State of New York or, if no such office is available, at a mutually agreeable and reasonable venue within the State, for the term specified above for the purposes of inspection, auditing and copying. The State shall take reasonable steps to protect from public disclosure any of the Records which are exempt from disclosure under Section 87 of the Public Officers Law (the "Statute") provided that: (i) the Contractor shall timely inform an appropriate State official, in writing, that said records should not be disclosed; and (ii) said records shall be sufficiently identified; and (iii) designation of said records as exempt under the Statute is reasonable. Nothing contained herein shall diminish, or in any way adversely affect, the State's right to discovery in any pending or future litigation.

11. IDENTIFYING INFORMATION AND PRIVACY NOTIFICATION.

(a) Identification Number(s). Every invoice or New York State Claim for Payment submitted to a New York State agency by a payee, for payment for the sale of goods or services or for transactions (e.g., leases, easements, licenses, etc.) related to real or personal property must include the payee's identification number. The number is any or all of the following: (i) the payee's Federal employer identification number, (ii) the payee's Federal social security number, and/or (iii) the payee's Vendor Identification Number assigned by the Statewide Financial System. Failure to include such number or numbers may delay payment. Where the payee does not have such number or numbers, the payee, on its invoice or Claim for Payment, must give the reason or reasons why the payee does not have such number or numbers.

(b) Privacy Notification. (1) The authority to request the above personal information from a seller of goods or services or a lessor of real or personal property, and the authority to maintain such information, is found in Section 5 of the State Tax Law. Disclosure of this information by the seller or lessor to the State is mandatory. The principal purpose for which the information is collected is to enable the State to identify individuals, businesses and others who have been delinquent in filing tax returns or may have understated their tax liabilities and to generally identify persons affected by the taxes administered by the Commissioner of Taxation and Finance. The information will be used for tax administration purposes and for any other purpose authorized by law. (2) The personal information is requested by the purchasing unit of the agency contracting to purchase the goods or services or lease the real or personal property covered by this contract or lease. The information is maintained in the Statewide Financial System by the Vendor Management Unit within the Bureau of State Expenditures, Office of the State Comptroller, 110 State Street, Albany, New York 12236.

12. EQUAL EMPLOYMENT OPPORTUNITIES FOR MINORITIES AND WOMEN.

In accordance with Section 312 of the Executive Law and 5 NYCRR 143, if this contract is: (i) a written agreement or purchase order instrument, providing for a total expenditure in excess of \$25,000.00,

whereby a contracting agency is committed to expend or does expend funds in return for labor, services, supplies, equipment, materials or any combination of the foregoing, to be performed for, or rendered or furnished to the contracting agency; or (ii) a written agreement in excess of \$100,000.00 whereby a contracting agency is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon; or (iii) a written agreement in excess of \$100,000.00 whereby the owner of a State assisted housing project is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon for such project, then the following shall apply and by signing this agreement the Contractor certifies and affirms that it is Contractor's equal employment opportunity policy that:

(a) The Contractor will not discriminate against employees or applicants for employment because of race, creed, color, national origin, sex, age, disability or marital status, shall make and document its conscientious and active efforts to employ and utilize minority group members and women in its work force on State contracts and will undertake or continue existing programs of affirmative action to ensure that minority group members and women are afforded equal employment opportunities without discrimination. Affirmative action shall mean recruitment, employment, job assignment, promotion, upgradings, demotion, transfer, layoff, or termination and rates of pay or other forms of compensation;

(b) at the request of the contracting agency, the Contractor shall request each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding, to furnish a written statement that such employment agency, labor union or representative will not discriminate on the basis of race, creed, color, national origin, sex, age, disability or marital status and that such union or representative will affirmatively cooperate in the implementation of the Contractor's obligations herein; and

(c) the Contractor shall state, in all solicitations or advertisements for employees, that, in the performance of the State contract, all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status.

Contractor will include the provisions of "a", "b", and "c" above, in every subcontract over \$25,000.00 for the construction, demolition, replacement, major repair, renovation, planning or design of real property and improvements thereon (the "Work") except where the Work is for the beneficial use of the Contractor. Section 312 does not apply to: (i) work, goods or services unrelated to this contract; or (ii) employment outside New York State. The State shall consider compliance by a contractor or subcontractor with the requirements of any federal law concerning equal employment

opportunity which effectuates the purpose of this section. The contracting agency shall determine whether the imposition of the requirements of the provisions hereof duplicate or conflict with any such federal law and if such duplication or conflict exists, the contracting agency shall waive the applicability of Section 312 to the extent of such duplication or conflict. Contractor will comply with all duly promulgated and lawful rules and regulations of the Department of Economic Development's Division of Minority and Women's Business Development pertaining hereto.

13. CONFLICTING TERMS. In the event of a conflict between the terms of the contract (including any and all attachments thereto and amendments thereof) and the terms of this Appendix A, the terms of this Appendix A shall control.

14. GOVERNING LAW. This contract shall be governed by the laws of the State of New York except where the Federal supremacy clause requires otherwise.

15. LATE PAYMENT. Timeliness of payment and any interest to be paid to Contractor for late payment shall be governed by Article 11-A of the State Finance Law to the extent required by law.

16. NO ARBITRATION. Disputes involving this contract, including the breach or alleged breach thereof, may not be submitted to binding arbitration (except where statutorily authorized), but must, instead, be heard in a court of competent jurisdiction of the State of New York.

17. SERVICE OF PROCESS. In addition to the methods of service allowed by the State Civil Practice Law & Rules ("CPLR"), Contractor hereby consents to service of process upon it by registered or certified mail, return receipt requested. Service hereunder shall be complete upon Contractor's actual receipt of process or upon the State's receipt of the return thereof by the United States Postal Service as refused or undeliverable. Contractor must promptly notify the State, in writing, of each and every change of address to which service of process can be made. Service by the State to the last known address shall be sufficient. Contractor will have thirty (30) calendar days after service hereunder is complete in which to respond.

18. PROHIBITION ON PURCHASE OF TROPICAL HARDWOODS. The Contractor certifies and warrants that all wood products to be used under this contract award will be in accordance with, but not limited to, the specifications and provisions of Section 165 of the State Finance Law, (Use of Tropical Hardwoods) which prohibits purchase and use of tropical hardwoods, unless specifically exempted, by the State or any governmental agency or political subdivision or public benefit corporation. Qualification for an exemption under this law will be the responsibility of the contractor to establish to meet with the approval of the State.

In addition, when any portion of this contract involving the use of woods, whether supply or installation, is to be performed by any subcontractor, the prime Contractor will indicate and certify in the submitted bid proposal that the subcontractor has been informed and is in compliance with specifications and provisions regarding use of tropical hardwoods as detailed in §165 State Finance Law. Any such use must meet with the approval of the State; otherwise, the bid may not be considered responsive. Under bidder certifications, proof of qualification for exemption will be the responsibility of the Contractor to meet with the approval of the State.

19. MACBRIDE FAIR EMPLOYMENT PRINCIPLES.

In accordance with the MacBride Fair Employment Principles (Chapter 807 of the Laws of 1992), the Contractor hereby stipulates that the Contractor either (a) has no business operations in Northern Ireland, or (b) shall take lawful steps in good faith to conduct any business operations in Northern Ireland in accordance with the MacBride Fair Employment Principles (as described in Section 165 of the New York State Finance Law), and shall permit independent monitoring of compliance with such principles.

20. OMNIBUS PROCUREMENT ACT OF 1992. It is the policy of New York State to maximize opportunities for the participation of New York State business enterprises, including minority and women-owned business enterprises as bidders, subcontractors and suppliers on its procurement contracts.

Information on the availability of New York State subcontractors and suppliers is available from:

NYS Department of Economic Development
Division for Small Business
Albany, New York 12245
Telephone: 518-292-5100
Fax: 518-292-5884
email: opa@esd.ny.gov

A directory of certified minority and women-owned business enterprises is available from:

NYS Department of Economic Development
Division of Minority and Women's Business Development
633 Third Avenue
New York, NY 10017
212-803-2414
email: mwbecertification@esd.ny.gov
<https://ny.newnycontracts.com/FrontEnd/VendorSearchPublic.asp>

The Omnibus Procurement Act of 1992 requires that by signing this bid proposal or contract, as applicable, Contractors certify that whenever the total bid amount is greater than \$1 million:

(a) The Contractor has made reasonable efforts to encourage the participation of New York State Business Enterprises as suppliers and subcontractors, including certified minority and women-owned business enterprises, on this project, and has retained the documentation of these efforts to be provided upon request to the State;

(b) The Contractor has complied with the Federal Equal Opportunity Act of 1972 (P.L. 92-261), as amended;

(c) The Contractor agrees to make reasonable efforts to provide notification to New York State residents of employment opportunities on this project through listing any such positions with the Job Service Division of the New York State Department of Labor, or providing such notification in such manner as is consistent with existing collective bargaining contracts or agreements. The Contractor agrees to document these efforts and to provide said documentation to the State upon request; and

(d) The Contractor acknowledges notice that the State may seek to obtain offset credits from foreign countries as a result of this contract and agrees to cooperate with the State in these efforts.

21. RECIPROCITY AND SANCTIONS PROVISIONS.

Bidders are hereby notified that if their principal place of business is located in a country, nation, province, state or political subdivision that penalizes New York State vendors, and if the goods or services they offer will be substantially produced or performed outside New York State, the Omnibus Procurement Act 1994 and 2000 amendments (Chapter 684 and Chapter 383, respectively) require that they be denied contracts which they would otherwise obtain. NOTE: As of May 15, 2002, the list of discriminatory jurisdictions subject to this provision includes the states of South Carolina, Alaska, West Virginia, Wyoming, Louisiana and Hawaii. Contact NYS Department of Economic Development for a current list of jurisdictions subject to this provision.

22. COMPLIANCE WITH NEW YORK STATE INFORMATION SECURITY BREACH AND NOTIFICATION ACT. Contractor shall comply with the provisions of the New York State Information Security Breach and Notification Act (General Business Law Section 899-aa; State Technology Law Section 208).

23. COMPLIANCE WITH CONSULTANT DISCLOSURE LAW. If this is a contract for consulting services, defined for purposes of this requirement to include analysis, evaluation, research, training, data processing, computer programming, engineering, environmental, health, and mental health services, accounting, auditing, paralegal, legal or similar services, then, in accordance with Section 163 (4-g) of the State Finance Law (as amended by Chapter 10 of the Laws of 2006), the Contractor shall timely, accurately and properly comply with the requirement to submit an annual employment report for the contract to the agency that awarded

the contract, the Department of Civil Service and the State Comptroller.

24. PROCUREMENT LOBBYING. To the extent this agreement is a "procurement contract" as defined by State Finance Law Sections 139-j and 139-k, by signing this agreement the contractor certifies and affirms that all disclosures made in accordance with State Finance Law Sections 139-j and 139-k are complete, true and accurate. In the event such certification is found to be intentionally false or intentionally incomplete, the State may terminate the agreement by providing written notification to the Contractor in accordance with the terms of the agreement.

25. CERTIFICATION OF REGISTRATION TO COLLECT SALES AND COMPENSATING USE TAX BY CERTAIN STATE CONTRACTORS, AFFILIATES AND SUBCONTRACTORS.

To the extent this agreement is a contract as defined by Tax Law Section 5-a, if the contractor fails to make the certification required by Tax Law Section 5-a or if during the term of the contract, the Department of Taxation and Finance or the covered agency, as defined by Tax Law 5-a, discovers that the certification, made under penalty of perjury, is false, then such failure to file or false certification shall be a material breach of this contract and this contract may be terminated, by providing written notification to the Contractor in accordance with the terms of the agreement, if the covered agency determines that such action is in the best interest of the State.

26. IRAN DIVESTMENT ACT. By entering into this Agreement, Contractor certifies in accordance with State Finance Law §165-a that it is not on the "Entities Determined to be Non-Responsive Bidders/Offerers pursuant to the New York State Iran Divestment Act of 2012" ("Prohibited Entities List") posted at:
<http://www.ogs.ny.gov/about/regs/docs/ListofEntities.pdf>

Contractor further certifies that it will not utilize on this Contract any subcontractor that is identified on the Prohibited Entities List. Contractor agrees that should it seek to renew or extend this Contract, it must provide the same certification at the time the Contract is renewed or extended. Contractor also agrees that any proposed Assignee of this Contract will be required to certify that it is not on the Prohibited Entities List before the contract assignment will be approved by the State.

During the term of the Contract, should the state agency receive information that a person (as defined in State Finance Law §165-a) is in violation of the above-referenced certifications, the state agency will review such information and offer the person an opportunity to respond. If the person fails to demonstrate that it has ceased its engagement in the investment activity which is in violation of the Act within 90 days after the determination of such violation, then the state agency shall take such action as may be appropriate and provided for by law, rule, or contract, including, but not

limited to, imposing sanctions, seeking compliance, recovering damages, or declaring the Contractor in default.

The state agency reserves the right to reject any bid, request for assignment, renewal or extension for an entity that appears on the Prohibited Entities List prior to the award, assignment, renewal or extension of a contract, and to pursue a responsibility review with respect to any entity that is awarded a contract and appears on the Prohibited Entities list after contract award.

APPENDIX B – USCS SOILS REPORT



United States
Department of
Agriculture

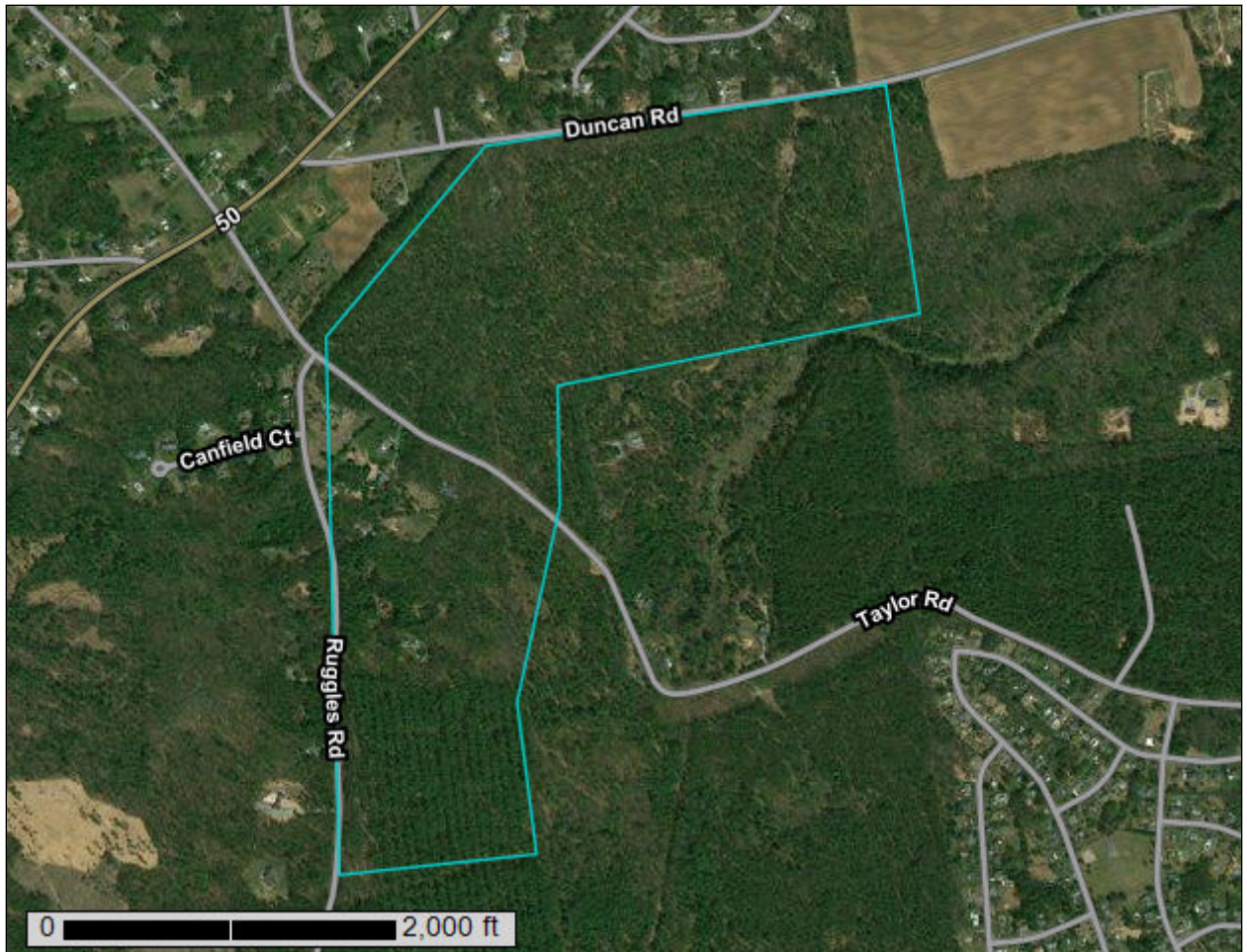
NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Saratoga County, New York

Off-Airport Mitigation



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

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scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

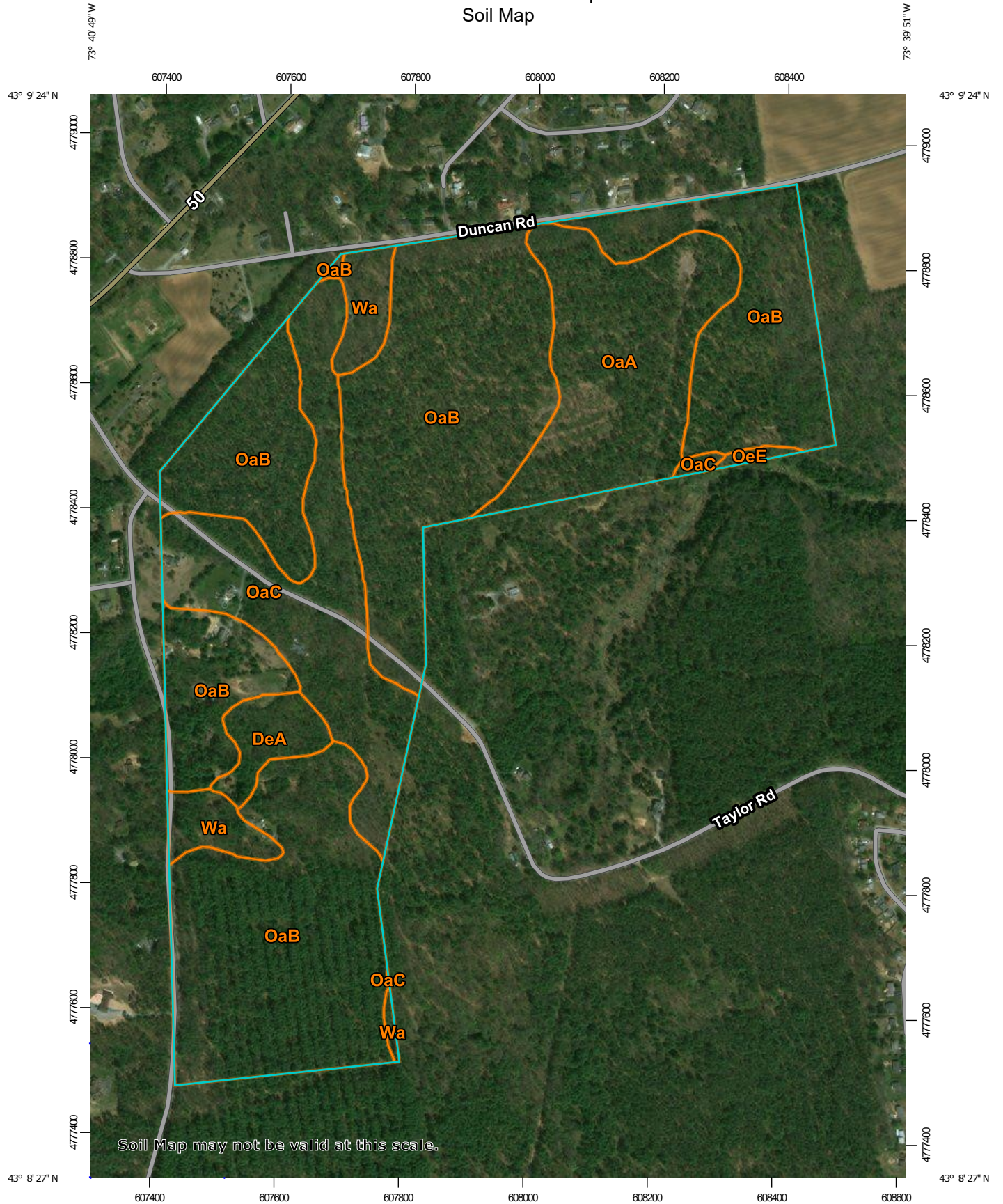
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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

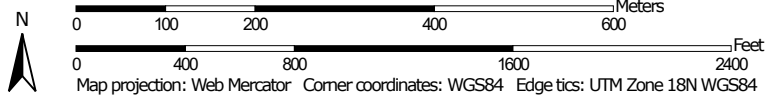
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



Map Scale: 1:8,440 if printed on A portrait (8.5" x 11") sheet.



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Saratoga County, New York
 Survey Area Data: Version 19, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 10, 2015—Mar 29, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
DeA	Deerfield loamy fine sand, 0 to 3 percent slopes	4.5	2.4%
OaA	Oakville loamy fine sand, nearly level	26.0	14.1%
OaB	Oakville loamy fine sand, undulating	119.2	64.4%
OaC	Oakville loamy fine sand, rolling	27.5	14.9%
OeE	Windsor loamy sand, 25 to 35 percent slopes	0.6	0.3%
Wa	Wareham loamy sand	7.3	3.9%
Totals for Area of Interest		185.1	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it

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was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Saratoga County, New York

DeA—Deerfield loamy fine sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2xfg8

Elevation: 0 to 1,100 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 145 to 240 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Deerfield and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Deerfield

Setting

Landform: Outwash plains, outwash deltas, outwash terraces, kame terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear, concave, convex

Across-slope shape: Concave, linear, convex

Parent material: Sandy outwash derived from granite, gneiss, and/or quartzite

Typical profile

Ap - 0 to 9 inches: loamy fine sand

Bw - 9 to 25 inches: loamy fine sand

BC - 25 to 33 inches: fine sand

Cg - 33 to 60 inches: sand

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Moderately well drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)

Depth to water table: About 15 to 37 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 11.0

Available water storage in profile: Moderate (about 6.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Windsor

Percent of map unit: 7 percent

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Landform: Outwash deltas, kame terraces, outwash terraces, outwash plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear, concave, convex
Across-slope shape: Concave, linear, convex
Hydric soil rating: No

Wareham

Percent of map unit: 5 percent
Landform: Depressions, drainageways
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Sudbury

Percent of map unit: 2 percent
Landform: Kame terraces, outwash plains, outwash terraces, outwash deltas
Landform position (three-dimensional): Tread
Down-slope shape: Convex, linear, concave
Across-slope shape: Concave, linear, convex
Hydric soil rating: No

Ninigret

Percent of map unit: 1 percent
Landform: Outwash terraces, outwash plains, kame terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear, convex
Across-slope shape: Concave, convex
Hydric soil rating: No

OaA—Oakville loamy fine sand, nearly level

Map Unit Setting

National map unit symbol: 9wbz
Elevation: 600 to 1,200 feet
Mean annual precipitation: 36 to 48 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 125 to 160 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Oakville and similar soils: 70 percent
Minor components: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Oakville

Setting

Landform: Deltas, outwash plains, terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex

Custom Soil Resource Report

Across-slope shape: Convex

Parent material: Sandy eolian, beach ridge, or glaciofluvial deposits

Typical profile

H1 - 0 to 7 inches: loamy fine sand

H2 - 7 to 37 inches: loamy fine sand

H3 - 37 to 90 inches: loamy fine sand

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)

Depth to water table: About 36 to 72 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Windsor

Percent of map unit: 10 percent

Hydric soil rating: No

Wareham

Percent of map unit: 5 percent

Hydric soil rating: No

Wareham

Percent of map unit: 5 percent

Hydric soil rating: Yes

Deerfield

Percent of map unit: 5 percent

Hydric soil rating: No

Unnamed soils

Percent of map unit: 5 percent

OaB—Oakville loamy fine sand, undulating

Map Unit Setting

National map unit symbol: 9wc0

Elevation: 600 to 1,200 feet

Mean annual precipitation: 36 to 48 inches

Mean annual air temperature: 45 to 48 degrees F

Custom Soil Resource Report

Frost-free period: 125 to 160 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Oakville and similar soils: 70 percent
Minor components: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Oakville

Setting

Landform: Deltas, outwash plains, terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy eolian, beach ridge, or glaciofluvial deposits

Typical profile

H1 - 0 to 7 inches: loamy fine sand
H2 - 7 to 37 inches: loamy fine sand
H3 - 37 to 90 inches: loamy fine sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Windsor

Percent of map unit: 10 percent
Hydric soil rating: No

Deerfield

Percent of map unit: 5 percent
Hydric soil rating: No

Wareham

Percent of map unit: 5 percent
Hydric soil rating: No

Unnamed soils

Percent of map unit: 5 percent

Wareham

Percent of map unit: 5 percent

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Hydric soil rating: Yes

OaC—Oakville loamy fine sand, rolling

Map Unit Setting

National map unit symbol: 9wc1

Elevation: 600 to 1,200 feet

Mean annual precipitation: 36 to 48 inches

Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 125 to 160 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Oakville and similar soils: 70 percent

Minor components: 30 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Oakville

Setting

Landform: Deltas, outwash plains, terraces

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Sandy eolian, beach ridge, or glaciofluvial deposits

Typical profile

H1 - 0 to 7 inches: loamy fine sand

H2 - 7 to 37 inches: loamy fine sand

H3 - 37 to 90 inches: loamy fine sand

Properties and qualities

Slope: 8 to 15 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Wareham

Percent of map unit: 10 percent
Hydric soil rating: No

Windsor

Percent of map unit: 10 percent
Hydric soil rating: No

Deerfield

Percent of map unit: 5 percent
Hydric soil rating: No

Unnamed soils

Percent of map unit: 5 percent

OeE—Windsor loamy sand, 25 to 35 percent slopes

Map Unit Setting

National map unit symbol: 2svl7
Elevation: 10 to 1,110 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Windsor and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Windsor

Setting

Landform: Outwash plains, outwash terraces, deltas, dunes
Landform position (three-dimensional): Tread, riser
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Parent material: Loose sandy glaciofluvial deposits derived from granite and/or loose sandy glaciofluvial deposits derived from schist and/or loose sandy glaciofluvial deposits derived from gneiss

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 3 inches: loamy sand
Bw - 3 to 25 inches: loamy sand
C - 25 to 65 inches: sand

Properties and qualities

Slope: 25 to 35 percent

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Depth to restrictive feature: More than 80 inches
Natural drainage class: Excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Hinckley

Percent of map unit: 10 percent
Landform: Kames, deltas, outwash plains, eskers
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Nose slope, side slope, crest, head slope, rise
Down-slope shape: Convex
Across-slope shape: Convex, linear
Hydric soil rating: No

Wa—Wareham loamy sand

Map Unit Setting

National map unit symbol: 9wd4
Elevation: 100 to 1,000 feet
Mean annual precipitation: 36 to 48 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 125 to 160 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Wareham, poorly drained, and similar soils: 70 percent
Minor components: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wareham, Poorly Drained

Setting

Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread

Custom Soil Resource Report

Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Sandy glaciofluvial or deltaic deposits

Typical profile

O_i - 0 to 2 inches: slightly decomposed plant material
H₂ - 2 to 8 inches: loamy sand
H₃ - 8 to 19 inches: loamy sand
C - 19 to 72 inches: sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (K_{sat}): Moderately high to high (0.20 to 5.95 in/hr)
Depth to water table: About 0 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 5.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Hydric soil rating: Yes

Minor Components

Wareham, somewhat poorly drained

Percent of map unit: 10 percent
Hydric soil rating: No

Deerfield

Percent of map unit: 5 percent
Hydric soil rating: No

Scarboro

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Raynham

Percent of map unit: 5 percent
Hydric soil rating: No

Cheektowaga

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Soil Physical Properties

This folder contains a collection of tabular reports that present soil physical properties. The reports (tables) include all selected map units and components for each map unit. Soil physical properties are measured or inferred from direct observations in the field or laboratory. Examples of soil physical properties include percent clay, organic matter, saturated hydraulic conductivity, available water capacity, and bulk density.

Engineering Properties

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Hydrologic soil group is a group of soils having similar runoff potential under similar storm and cover conditions. The criteria for determining Hydrologic soil group is found in the National Engineering Handbook, Chapter 7 issued May 2007 (<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>). Listing HSGs by soil map unit component and not by soil series is a new concept for the engineers. Past engineering references contained lists of HSGs by soil series. Soil series are continually being defined and redefined, and the list of soil series names changes so frequently as to make the task of maintaining a single national list virtually impossible. Therefore, the criteria is now used to calculate the HSG using the component soil properties and no such national series lists will be maintained. All such references are obsolete and their use should be discontinued. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to a seasonal high water table, saturated hydraulic conductivity after prolonged wetting, and depth to a layer with a very slow water transmission

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rate. Changes in soil properties caused by land management or climate changes also cause the hydrologic soil group to change. The influence of ground cover is treated independently. There are four hydrologic soil groups, A, B, C, and D, and three dual groups, A/D, B/D, and C/D. In the dual groups, the first letter is for drained areas and the second letter is for undrained areas.

The four hydrologic soil groups are described in the following paragraphs:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group

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index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Percentage of rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an oven-dry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Liquid limit and plasticity index (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

References:

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

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Absence of an entry indicates that the data were not estimated. The asterisk '*' denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007(<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Engineering Properties—Saratoga County, New York														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
DeA—Deerfield loamy fine sand, 0 to 3 percent slopes														
Deerfield	85	A	0-9	Fine sandy loam, loamy sand, fine sand, sand, sandy loam, loamy fine sand	SC-SM, SM	A-4, A-2-4	0- 0- 0	0- 0- 0	86-100-100	72-100-100	62-88-95	21-32-39	0-0 -38	NP-0 -5
			9-25	Loamy sand, fine sand, sand, coarse sand, loamy fine sand	SC-SM, SM	A-2-4, A-4	0- 0- 0	0- 0- 0	86-100-100	72-100-100	62-88-95	22-32-39	0-0 -24	NP-0 -5
			25-33	Loamy sand, loamy fine sand, fine sand, coarse sand, sand	SC-SM, SM	A-2-4	0- 0- 0	0- 0- 0	87-100-100	74-100-100	67-92-100	13-19-27	0-0 -20	NP-0 -5
			33-60	Loamy sand, fine sand, loamy fine sand, gravelly sand, coarse sand, stratified gravelly sand to sand, sand	SW-SM, SP-SM, SP, SW, SC-SM, SM, SP-SC, SW-SC	A-1-b, A-2-4, A-3	0- 0- 0	0- 0- 0	78-100-100	56-85-100	43-67-86	4- 9- 17	0-0 -20	NP-0 -5

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Engineering Properties—Saratoga County, New York														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
OaA—Oakville loamy fine sand, nearly level														
Oakville	70	A	0-7	Loamy fine sand	SM	A-2	0- 0- 0	0- 0- 0	100-100-100	95-100-100	55-65-80	10-25-35	—	NP
			7-37	Fine sand, loamy fine sand	SM, SP-SM	A-2	0- 0- 0	0- 0- 0	100-100-100	95-100-100	55-65-80	10-25-35	—	NP
			37-90	Sand, fine sand, loamy fine sand	SM, SP-SM	A-2-4	0- 0- 0	0- 0- 0	100-100-100	95-100-100	55-65-80	5-25- 35	—	—
OaB—Oakville loamy fine sand, undulating														
Oakville	70	A	0-7	Loamy fine sand	SM	A-2	0- 0- 0	0- 0- 0	100-100-100	95-100-100	55-65-80	10-25-35	—	NP
			7-37	Fine sand, loamy fine sand	SM, SP-SM	A-2	0- 0- 0	0- 0- 0	100-100-100	95-100-100	55-65-80	10-25-35	—	NP
			37-90	Sand, fine sand, loamy fine sand	SM, SP-SM	A-2-4	0- 0- 0	0- 0- 0	100-100-100	95-100-100	55-65-80	5-25- 35	—	—
OaC—Oakville loamy fine sand, rolling														
Oakville	70	A	0-7	Loamy fine sand	SM	A-2	0- 0- 0	0- 0- 0	100-100-100	95-100-100	55-65-80	10-25-35	—	NP
			7-37	Fine sand, loamy fine sand	SM, SP-SM	A-2	0- 0- 0	0- 0- 0	100-100-100	95-100-100	55-65-80	10-25-35	—	NP
			37-90	Sand, fine sand, loamy fine sand	SM, SP-SM	A-2-4	0- 0- 0	0- 0- 0	100-100-100	95-100-100	55-65-80	5-25- 35	—	—

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Engineering Properties—Saratoga County, New York														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
OeE—Windsor loamy sand, 25 to 35 percent slopes														
Windsor	90	A	0-1	Moderately decomposed plant material, highly decomposed plant material, slightly decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			1-3	Loamy sand, loamy fine sand, fine sand, sand	SP-SM, SM, SW-SM	A-2-4, A-1-b, A-4	0- 0- 0	0- 0- 0	85-100-100	70-100-100	50-83-100	12-25-37	0-0 -30	NP-0 -2
			3-25	Loamy sand, loamy fine sand, fine sand, sand, coarse sand, loamy coarse sand	SP-SM, SM, SW-SM	A-3, A-2-4	0- 0- 0	0- 0- 0	86-100-100	72-100-100	45-75-98	10-22-36	0-0 -23	NP-0 -4
			25-65	Loamy fine sand, loamy sand, fine sand, sand, coarse sand, gravelly coarse sand	SW, SP, SM, SW-SM, SP-SM	A-3, A-2-4, A-1-b	0- 0- 0	0- 0- 0	81-100-100	63-100-100	40-78-100	4-12- 36	0-0 -20	NP-0 -4

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Engineering Properties—Saratoga County, New York														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
Wa—Wareham loamy sand														
Wareham, poorly drained	70	A/D	0-2	Slightly decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	100-100-100	100-100-100	—	—	—	—
			2-8	Loamy sand	SM	A-1, A-2	0- 0- 0	0- 0- 0	85-100-100	75-100-100	40-65-75	15-20-35	—	NP
			8-19	Loamy fine sand, loamy sand, loamy sand	SM, SP-SM	A-1, A-2, A-3	0- 0- 0	0- 0- 0	85-100-100	75-100-100	40-65-75	5-20- 35	—	NP
			19-72	Loamy coarse sand, loamy sand, coarse sand, sand	SM, SP, SP-SM	A-1, A-2, A-3	0- 0- 0	0- 0- 5	50-100-100	30-100-100	20-60-75	0-10- 30	—	NP

References

- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Federal Register. September 18, 2002. Hydric soils of the United States.
- Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
- National Research Council. 1995. Wetlands: Characteristics and boundaries.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580
- Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

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United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

APPENDIX C – STORMWATER POLLUTION PREVENTION PLAN

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

For

OFF-AIRPORT HABITAT MITIGATION Wilton / Northumberland, New York

FAA AIP No. 3-36-0004-036-2019

PREPARED FOR:



Saratoga County
3654 Galway Road
Ballston Spa, NY 12020

PREPARED BY:



McFarland Johnson

60 Railroad Place, Suite 402
Saratoga Springs, NY 12866

100% DESIGN

APRIL 2020

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5. EROSION AND SEDIMENT CONSTROL MEASURES	6
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APPENDIX LIST

APPENDIX A – LOCATION MAP

APPENDIX B – NRCS SOILS MAP

APPENDIX C – EROSION & SEDIMENT CONTROL PLANS, DETAILS, & NOTES

APPENDIX D – NOI, SPDES PERMIT, & ACKNOWLEDGEMENT LETTER

APPENDIX E – BMP SPECIFICATIONS

1. INTRODUCTION

A stormwater management assessment has been conducted for the proposed project in order to protect the waters of the State of New York from the adverse impacts of stormwater runoff. This report presents an analysis of the project in accordance with the *New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-20-001* and the *New York State Stormwater Management Design Manual* ("The Manual"). As required, the Stormwater Pollution Prevention Plan is designed, where appropriate, to incorporate green infrastructure techniques that preserve natural resources and utilize the existing hydrology of the site, provide runoff reduction practices, water quality treatment practices, apply volume and peak control practices for channel protection, overbank flood control, and extreme flood control as appropriate.

In accordance with Appendix B, Table 1 of the SPDES General Permit for Construction Activity, GP-0-20-001, construction activities that involve a soil disturbance of one or more acres for environmental enhancement projects site require the preparation of a SWPPP that only includes erosion and sediment controls. In total, approximately 100 acres of soil disturbance is expected during the construction of this project. Therefore, this project includes the development of erosion and sediment controls.

The general contractor and subcontractors performing any activity that involves soil disturbance will be required to comply with the terms and conditions of the SWPPP for the project identified as a condition of authorization to discharge stormwater. The Contractor shall provide signed certifications (Form CONR 5) for itself and all applicable subcontractors at the preconstruction meeting. These signed certifications shall be included as part of the SWPPP. The SPDES General Permit and SWPPP must be kept on file at the Project Field Office.

As required by the conditions described in the SPDES general permit, the SWPPP shall be kept current and changes made to reflect changes in the design, construction, and operation or in the maintenance of the project.

The complete set of construction drawings and specifications are provided as separate documents; however, they should be considered an integral component of the SWPPP and are referenced throughout this document. The applicant must retain all documentation for 5 years after NYSDEC accepts the Notice of Termination (NOT).

1.1 Scope of the Project

The existing site is being modified to address the off-airport habitat mitigation for incidental take of federally-listed endangered Karner blue butterfly (KBB) and state-listed threatened frosted elfin butterfly. The proposed mitigation includes the South Site (25 acres) and the North Site (75 acres). The proposed project includes grubbing and stripping of the site, rough grading, soil stabilization, native seeding, and enhancement planting to establish mitigation habitat.

1.2 Location of Project

The project sites are located in the towns of Wilton and Northumberland, approximately 15 miles northeast of the Airport on County owned land. The mitigation sites, totaling approximately 100 acres, are located in the vicinity of known KBB habitat and viable populations. The mitigation sites are considered part of the New York State Saratoga Sandplains Recovery Unit (SSRU) for the KBB. Refer to the Location Map in Appendix A.

Table 1 - Location Table

Approximate Coordinate Position @ Center of Project		
South Site	Latitude	39°01'33.5" N
	Longitude	76°11'14.1" W
North Site	Latitude	39°00'58.7" N
	Longitude	76°11'25.7" W

1.3 Project Type and Size

The project is an environmental improvement project that has a disturbance area of approximately 100 acres and a no change in the impervious area.

1.4 Project Description

Habitat creation would occur in two phases. Phase 1 is the base bid and would include the creation of habitat on approximately 25 acres on the South Site, Phase 2 is the add alternate - 74 acres on the North Site. Reconnaissance of the potential mitigation sites was conducted to determine suitable habitat areas. Site characteristics unsuitable for habitat creation, as discussed with NYSDEC, include the following: steep slopes, wetlands, surface water, and poorly drained soils. In addition, mapping of potential restoration sand areas, prepared by The Nature Conservancy (TNC), was used to further delineate mitigation sites. Potential restoration sand areas are based mostly on soils. The mitigation boundaries were chosen based on findings of the site reconnaissance and desktop review of potential constraints. In addition, an approximate 100-foot setback from wetlands, surface water, adjacent private property, and roadways was used to determine the proposed mitigation boundaries.

Staging areas for construction of mitigation areas would take place within existing logging landing areas as shown in Appendix C. Proposed habitat mitigation for impacts to the KBB and frosted elfin butterfly species and habitat would include selective silvicultural thinning, scraping to mineral soil layer (removal of topsoil), followed by restoration planting with native grasses, nectar species, and locally-derived native lupine seed. Seeding would include a combination of seed drilling and non-mechanized handseeding.

The existing sites have been logged and are made up of entirely pervious cover. The proposed habitat mitigation will not change the pervious cover of the sites.

1.5 Cultural Resources

Consultation with The New York State Office of Parks, Recreation and Historic Preservation (OPRHP) was initiated to determine the impacts on historical or cultural resources as a result of the proposed off-airport habitat mitigation. A project review was conducted through the SHPO Cultural Resources Information System (CRIS). According to CRIS, there are no historic or cultural resources or archaeological sensitive areas on or in the immediate vicinity of the off-airport mitigation sites. Consultation with OPRHP was initiated to confirm the mitigation project would not impact potential historical or cultural resources. A response from OPRHP, dated May 7, 2018, states they have reviewed the project and determined that no historic properties will be affected by the mitigation project.

1.6 On-site Wetlands

As part of the aforementioned permits, impact to aquatic resources, including wetlands, were evaluated. There is one wetland identified on the North Site property. An approximate 100-foot setback from

wetlands and surface water are maintained for the mitigation boundary.

1.7 Threatened/Endangered Species

A Mitigation Management and Protection Plan (MMPP) has been prepared in support of the County of Saratoga's Biological Opinion (BO) issued by the United States Fish and Wildlife (USFWS) pursuant to Sections 7 and 9 of the Endangered Species Act (ESA) (16 U.S.C. 1531-1544, 87 Stat. 884). The MMPP has also been prepared to support a New York State Department of Environmental Conservation (NYSDEC) issuance of a permit pursuant to the Environmental Conservation Law (ECL) §11-0535 and New York State regulations at 6 NYCRR 182, Endangered and Threatened Species of Fish and Wildlife; Species of Special Concern; Incidental Take Permit.

2. PROJECT MAPS AND PLANS

2.1 Location Map

See Appendix A

2.2 Soil Maps

See Appendix B

2.3 Erosion and Sediment Control Plans

See Appendix C

3. PROJECT SOILS

3.1 NRCS Soil Map

See Appendix B

3.2 Soil Types

The following soil type(s) and hydrologic group(s) are present within the project area of disturbance:

Table 2 – Soil Types

Soil Symbol	Name	Hydrologic Group (HSG)
OaA	Oakville loamy fine sand, nearly level	A
OaB	Oakville loamy fine sand, undulating	A
OaC	Oakville loamy fine sand, rolling	A

3.3 Discussion of Soil Characteristics and Soil Erosion Hazard Potential

The Project sites are anticipated to feature Oakville loamy fine sand soil types. The South Site is made up entirely of OaB, and the North Site has OaA, OaB, and OaC throughout the site. This soil type falls into Hydrologic Group A and has a high infiltration rate (low runoff potential) when thoroughly wet. These consist of mainly deep, well drained to excessively drained sands. These soils have a high rate of water transmission.

The vegetation, soil, and topography characteristics of both mitigation sites are similar. The forested areas are dominated by pitch pine, white pine, red oak, and black oak, with an understory dominated by serviceberry, sweet fern, and bracken fern. The mitigation sites are bound on the exterior by a mixture of vacant forested land, residential occupied land, and roadways.

4. CONSTRUCTION PHASING

4.1 Sequence of Construction Activities

The Contractor's work schedule and methods shall be consistent with the SWPPP or amended SWPPP. Once approved, the progress schedule shall become a part of the SWPPP.

The following list is a suggested sequence of major construction activities for the project to meet the NYSDEC Phase II erosion control requirements:

1. Clearly identify project work limits, identifying all areas where construction disturbance shall be permitted.
2. Install erosion control measures prior to commencing earthwork operations. Construct temporary control measures necessary to divert runoff from entering planned areas of disturbance and to protect the adjacent waterway.
3. Remove and dispose of all removed vegetation off-site or chipped on-site and hauled away.
4. Strip and stockpile topsoil to be removed off-site (stockpile locations as directed by owner's representative).
5. Rough grading restricted to creating smooth seed bed and filling potential potholes from rootball removal and ruts from equipment tracks.
6. All temporary erosion and sediment control measures as well as stockpiles are to be mulched and seeded for temporary vegetative cover immediately following grading.
7. Native seed is to be applied to restoration areas.
8. Remove temporary erosion and sediment control features upon establishment of permanent ground cover and inspection/approval from a Town official or representative.
9. Notify owner's representative of completion of final site stabilization.
10. File Notice of Termination.

5. EROSION AND SEDIMENT CONTROL MEASURES

5.1 Erosion Control Plan

An erosion control plan has been developed in accordance with the “New York Standards and Specifications for Erosion and Sediment Control”. The erosion control plan employs permanent and temporary erosion and sediment control methods including silt fence, construction entrances, and other appropriate measures.

5.1.1 *Temporary Surface Stabilization*

Areas within the project limits that may be disturbed more than once during the construction activities will be stabilized using temporary seed and mulch item or as directed by the Engineer. Areas remaining unpaved and undisturbed for more than seven (7) days during construction operations shall be stabilized temporarily. Other areas that might need to be stabilized temporarily will be at the discretion of the Engineer.

5.1.2 *Construction Entrance*

As required, at least one (1) stabilized construction entrance will be constructed to access the Contractors Staging/Storage Area. This entrance/area shall conform to the details. See plans for location of construction entrance(s).

5.1.3 *Permanent Stabilization*

Stabilizing of the graded surfaces will be accomplished by using various native seed mix for vegetation.

5.1.4 *Dust Control*

The contractor will be required to minimize dust generation during the construction activities. Provisions such as watering and the use of cover materials have proven effective in dust control and can be approved by the Engineer for use in the affected areas.

5.1.5 *Silt Fence*

Silt fence will be placed per the Erosion and Sediment Control Plans, down slope of all disturbed areas, soil stockpiles, and spoil areas. The purpose of the silt fence is to remove sediment from sheet flow in these areas. Silt fence shall remain in place and functional until the contributing area has been permanently stabilized. Sediment socks may be used in lieu of silt fence.

5.1.6 *Weekly Inspections*

A qualified inspector shall conduct site inspections at least once every seven (7) calendar days. The qualified inspector shall inspect all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved final stabilization, all points of discharge to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site, and all points of discharge from the construction site. The qualified construction inspector shall also prepare an inspection report subsequent to every inspection. Complete inspection and maintenance requirements can be found in Part IV of the SPDES General Permit GP-0-20-001 (Appendix D).

5.1.7 Final Inspection

Prior to the project being finally accepted, it shall be inspected for any evidence of erosion or slope failure. If any such condition becomes apparent upon final inspection, temporary soil erosion and sediment controls shall be installed immediately as directed by the Engineer. The situation shall be corrected per a schedule agreed to by the NYSDEC, Owner, and the Contractor.

The Erosion Control Plans are included in Appendix C.

5.2 Permanent Erosion and Sediment Control Measures

Table 3 – List of Permanent Erosion & Sediment Control Measures

Permanent Feature	Converted Temporary Practice?	Location: ESC Plan	Receiving Waterbody Protected (where applicable)
Soil Stabilization	Yes	See Plans	N/A

5.3 Installation Sequence

See the intended sequence of construction activities noted in Section 4 above.

5.4 Maintenance Schedule

The Contractor is required to inspect all E&SC devices in their active work area daily and repair any deficiencies in accordance with the SPDES permit.

5.5 SWPPP Implementation Responsibilities

Implementation of all E&SC devices will be by the Contractor as indicated in the contract documents.

6. POLLUTION PREVENTION MEASURES

6.1 Material Management Practices

All waste materials, including construction debris and trash that occur onsite shall be handled and disposed of in a manner that is in accordance with state and local regulations. No waste material shall be buried on site.

- An effort will be made to store only enough products required for the project.
- All materials stored within the site will be stored in a neat orderly manner in their appropriate containers and if possible, an enclosed area.
- Products shall be kept in their original containers with the original manufacturer's labels. Manufacturer's recommendations for proper use and disposal shall be followed.
- Hazardous materials shall be disposed of in accordance with State and Local regulations.
- Sanitary waste will be collected from portable units as required.

The following materials are expected to be on-site during construction:

- Petroleum based products
- Fertilizers

These materials and other materials used during construction with the potential to impact stormwater will be stored, managed, used, and disposed of in a manner that minimizes the potential for releases to the environment and especially into stormwater.

Emergency contacts for the project will be posted at the project office and are included at the end of this section.

6.2 Spill Control Practices

The contractor will be responsible for preparing a project area specific spill control plan in accordance with Local and NYSDEC regulations. At a minimum, this plan shall:

1. Reduce stormwater contact if there is a spill.
2. Contain the spill.
3. Stop the source of the spill.
4. Dispose of contaminated material in accordance with manufacturer's procedures and NYSDEC regulations.
5. Identify responsible trained personnel.
6. Ensure spill area is well ventilated.

6.3 General Material Handling Practices

The following general practices will be used throughout the project to reduce the potential for spills:

1. Potential pollutants will be stored and used in a manner consistent with the manufacturer's instructions in a secure location. To the extent practicable, material storage areas should not be located near storm drain inlets and should be equipped with covers, roofs, or secondary containment as needed to prevent stormwater from contacting stored materials. Chemicals that are not compatible shall be stored in segregated areas so that spilled materials cannot combine and react.
2. Materials disposal will be in accordance with manufacturer's instructions and applicable local state and federal regulations.

3. Materials no longer required for construction will be removed from the site as soon as practicable.
4. Adequate garbage, construction waste, and sanitary waste handling and disposal facilities will be provided to the extent necessary to keep the site clear of obstruction and BMPs clear and functional.

6.4 Product Specific Practices

The following product specific practices will be followed within the project area.

6.4.1 *Petroleum Products*

All project related vehicles shall be monitored for leaks and receive regular preventative maintenance to reduce chance of leakage. Petroleum products shall be stored in tightly sealed containers, which are clearly labeled. Any asphalt substances used during construction shall be applied according to manufacturer's recommendations.

6.4.2 *Fertilizers*

Fertilizers used shall be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer shall be worked into the soil to limit exposure to stormwater. Fertilizers shall be stored in covered or other contained areas.

6.5 Spill Response

The primary objective in responding to a spill is to quickly contain the material(s) and prevent or minimize their migration into stormwater runoff or conveyance systems. If the release has impacted on-site stormwater, it is critical to contain the released material on-site and prevent their release into receiving waters.

If a spill of pollutants threatens stormwater on-site, the spill response procedures outlines below must be implemented in a timely manner to prevent release of the pollutant:

1. The site superintendent will be notified immediately when a spill or the threat of a spill is observed. The superintendent will assess the situation and determine the appropriate response.
2. If spills represent an imminent threat of escaping ESC facilities and entering the receiving waters, facility personnel will respond immediately to contain the release and notify the superintendent after the situation has been stabilized.
3. Spill kits containing materials and equipment for spill response and clean-up will be maintained onsite. Each spill kit may contain:
 - Oil absorbent pads (one bale)
 - Oil absorbent booms (40 feet)
 - 55-gallon drums (2)
 - 9-mil plastic bags (10)
 - Personal protective equipment including gloves and goggles
4. If an oil sheen is observed on surface water, absorbent pads and/or booms will be applied to contain and remove the oil. The source of the oil sheen will also be identified and removed or repaired as necessary to prevent further releases.
5. The site superintendent, or their designee, will be responsible for completing a spill reporting form to the appropriate state or local agency.
6. Spill response equipment will be inspected and maintained as necessary to replace any materials used in spill response activities.

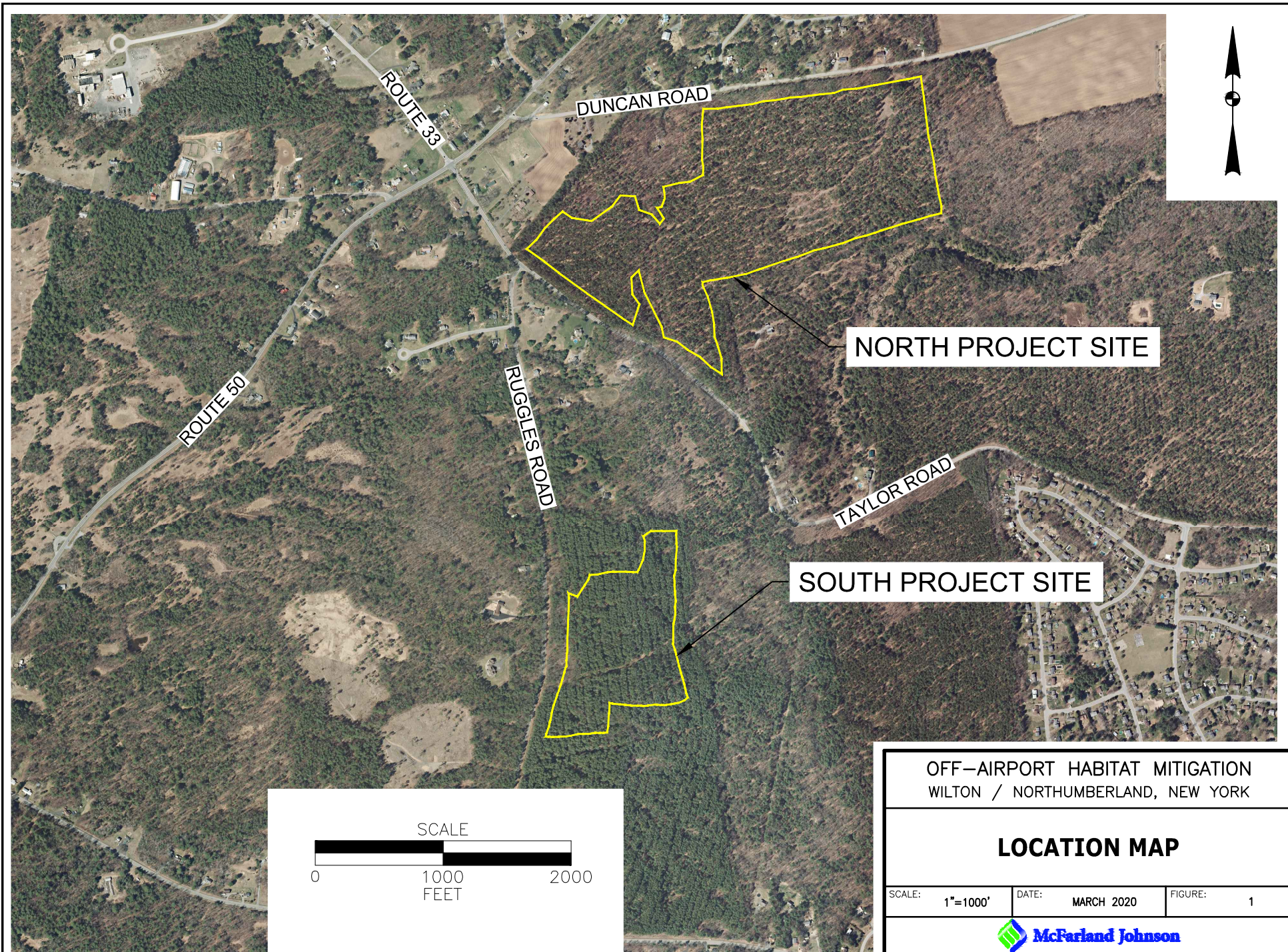
6.6 Notification

In the event of a spill, make the appropriate notification(s) consistent with the following procedures:

1. Any spill of oil which a) violates water quality standards, b) produces a sheen on a surface water, c) causes a sludge or emulsion must be reported immediately by telephone to the National Response Center Hotline at (800) 424-8802.
2. Any oil, hazardous substance, or hazardous waste release which exceeds the reportable quantity must be reported immediately by telephone to the National Response Center Hotline at (800) 424-8802.
3. Any spill of oil or hazardous substance to waters of the state must be reported immediately by telephone to the NYSDEC.
4. Any release of hazardous substance that may be a threat to human health or the environment must be reported to the NYSDEC immediately upon discovery.

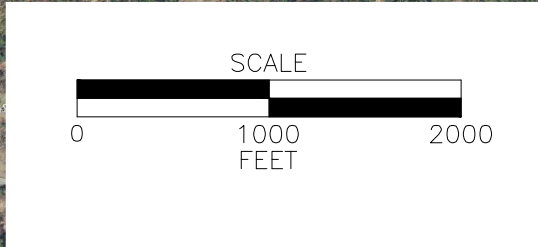
APPENDIX A

LOCATION MAP



NORTH PROJECT SITE

SOUTH PROJECT SITE



OFF-AIRPORT HABITAT MITIGATION
WILTON / NORTHUMBERLAND, NEW YORK

LOCATION MAP

SCALE: 1"=1000' DATE: MARCH 2020 FIGURE: 1



APPENDIX B

NRCS SOILS MAP



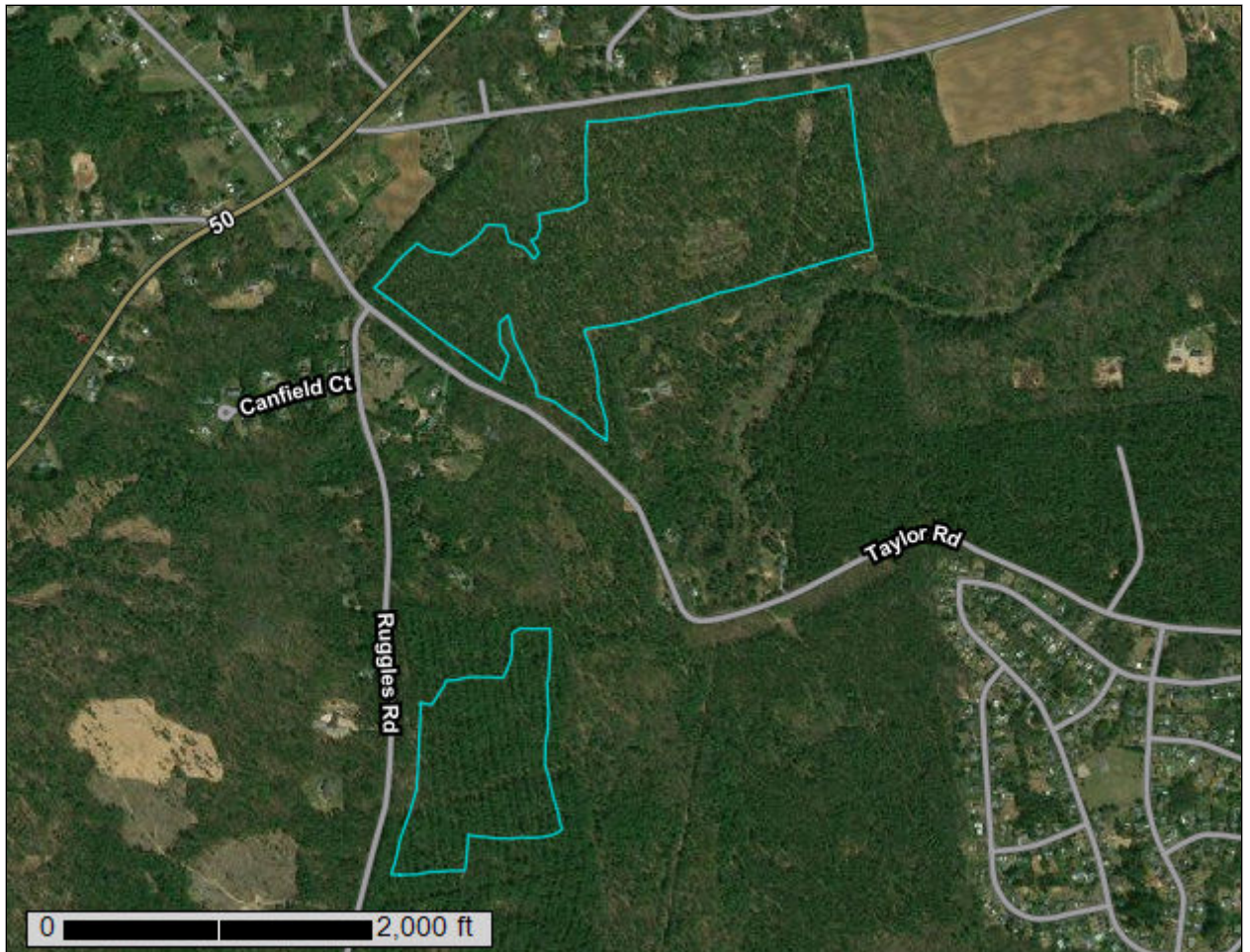
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Saratoga County, New York**



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

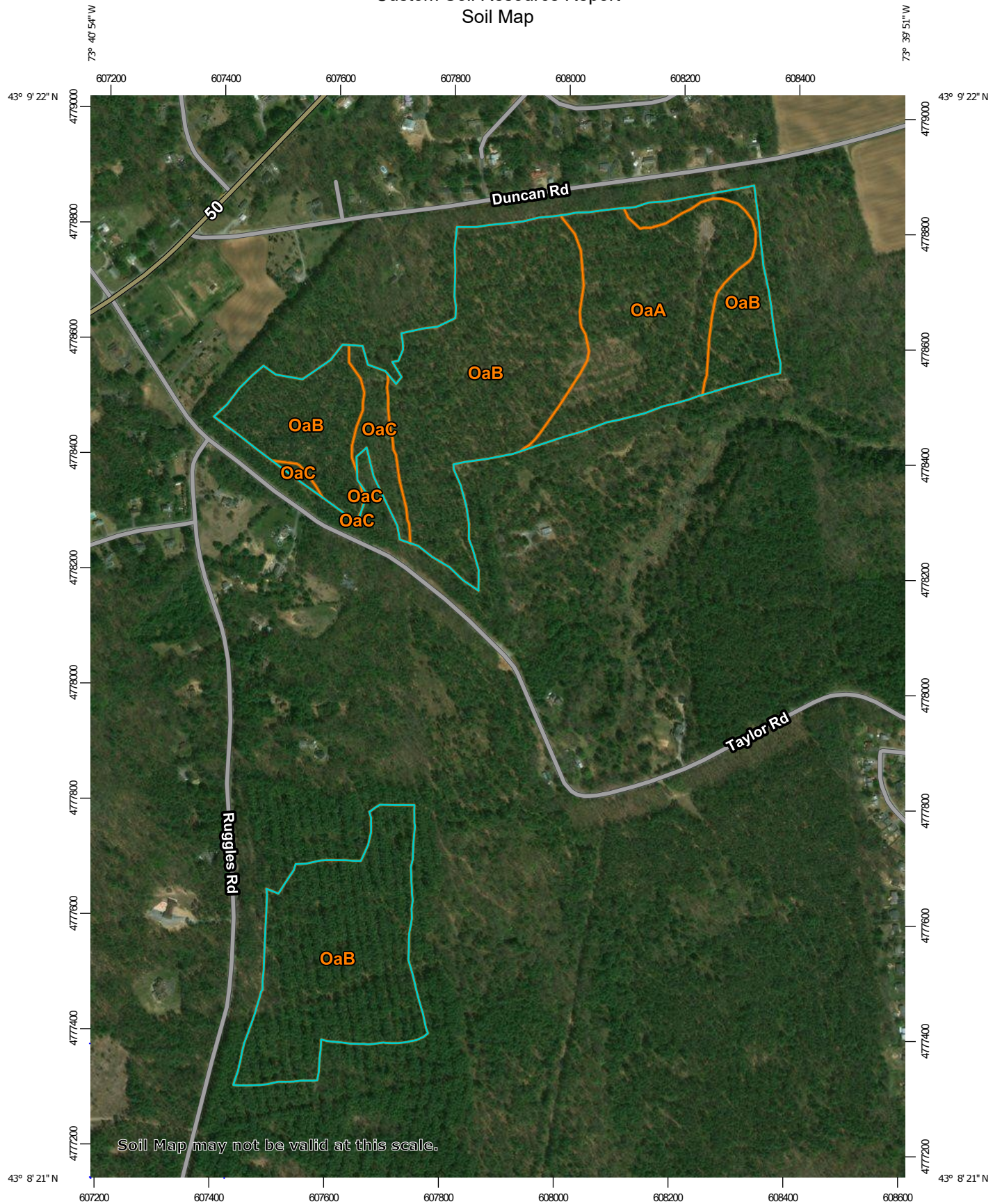
Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

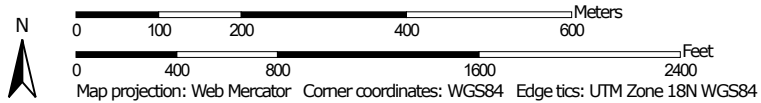
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map




Map Scale: 1:9,150 if printed on A portrait (8.5" x 11") sheet.





MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)




















Soils







 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Saratoga County, New York
 Survey Area Data: Version 19, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 10, 2015—Mar 29, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
OaA	Oakville loamy fine sand, nearly level	22.6	22.7%
OaB	Oakville loamy fine sand, undulating	72.9	73.3%
OaC	Oakville loamy fine sand, rolling	3.9	4.0%
Totals for Area of Interest		99.4	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The

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delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Saratoga County, New York

OaA—Oakville loamy fine sand, nearly level

Map Unit Setting

National map unit symbol: 9wbz
Elevation: 600 to 1,200 feet
Mean annual precipitation: 36 to 48 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 125 to 160 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Oakville and similar soils: 70 percent
Minor components: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Oakville

Setting

Landform: Deltas, outwash plains, terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy eolian, beach ridge, or glaciofluvial deposits

Typical profile

H1 - 0 to 7 inches: loamy fine sand
H2 - 7 to 37 inches: loamy fine sand
H3 - 37 to 90 inches: loamy fine sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: About 36 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Windsor

Percent of map unit: 10 percent
Hydric soil rating: No

Wareham

Percent of map unit: 5 percent
Hydric soil rating: No

Wareham

Percent of map unit: 5 percent
Hydric soil rating: Yes

Deerfield

Percent of map unit: 5 percent
Hydric soil rating: No

Unnamed soils

Percent of map unit: 5 percent

OaB—Oakville loamy fine sand, undulating

Map Unit Setting

National map unit symbol: 9wc0
Elevation: 600 to 1,200 feet
Mean annual precipitation: 36 to 48 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 125 to 160 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Oakville and similar soils: 70 percent
Minor components: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Oakville

Setting

Landform: Deltas, outwash plains, terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy eolian, beach ridge, or glaciofluvial deposits

Typical profile

H1 - 0 to 7 inches: loamy fine sand
H2 - 7 to 37 inches: loamy fine sand
H3 - 37 to 90 inches: loamy fine sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)

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Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Windsor

Percent of map unit: 10 percent
Hydric soil rating: No

Deerfield

Percent of map unit: 5 percent
Hydric soil rating: No

Wareham

Percent of map unit: 5 percent
Hydric soil rating: No

Unnamed soils

Percent of map unit: 5 percent

Wareham

Percent of map unit: 5 percent
Hydric soil rating: Yes

OaC—Oakville loamy fine sand, rolling

Map Unit Setting

National map unit symbol: 9wc1
Elevation: 600 to 1,200 feet
Mean annual precipitation: 36 to 48 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 125 to 160 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Oakville and similar soils: 70 percent
Minor components: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Oakville

Setting

Landform: Deltas, outwash plains, terraces
Landform position (two-dimensional): Shoulder

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Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Sandy eolian, beach ridge, or glaciofluvial deposits

Typical profile

H1 - 0 to 7 inches: loamy fine sand

H2 - 7 to 37 inches: loamy fine sand

H3 - 37 to 90 inches: loamy fine sand

Properties and qualities

Slope: 8 to 15 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Wareham

Percent of map unit: 10 percent

Hydric soil rating: No

Windsor

Percent of map unit: 10 percent

Hydric soil rating: No

Deerfield

Percent of map unit: 5 percent

Hydric soil rating: No

Unnamed soils

Percent of map unit: 5 percent

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

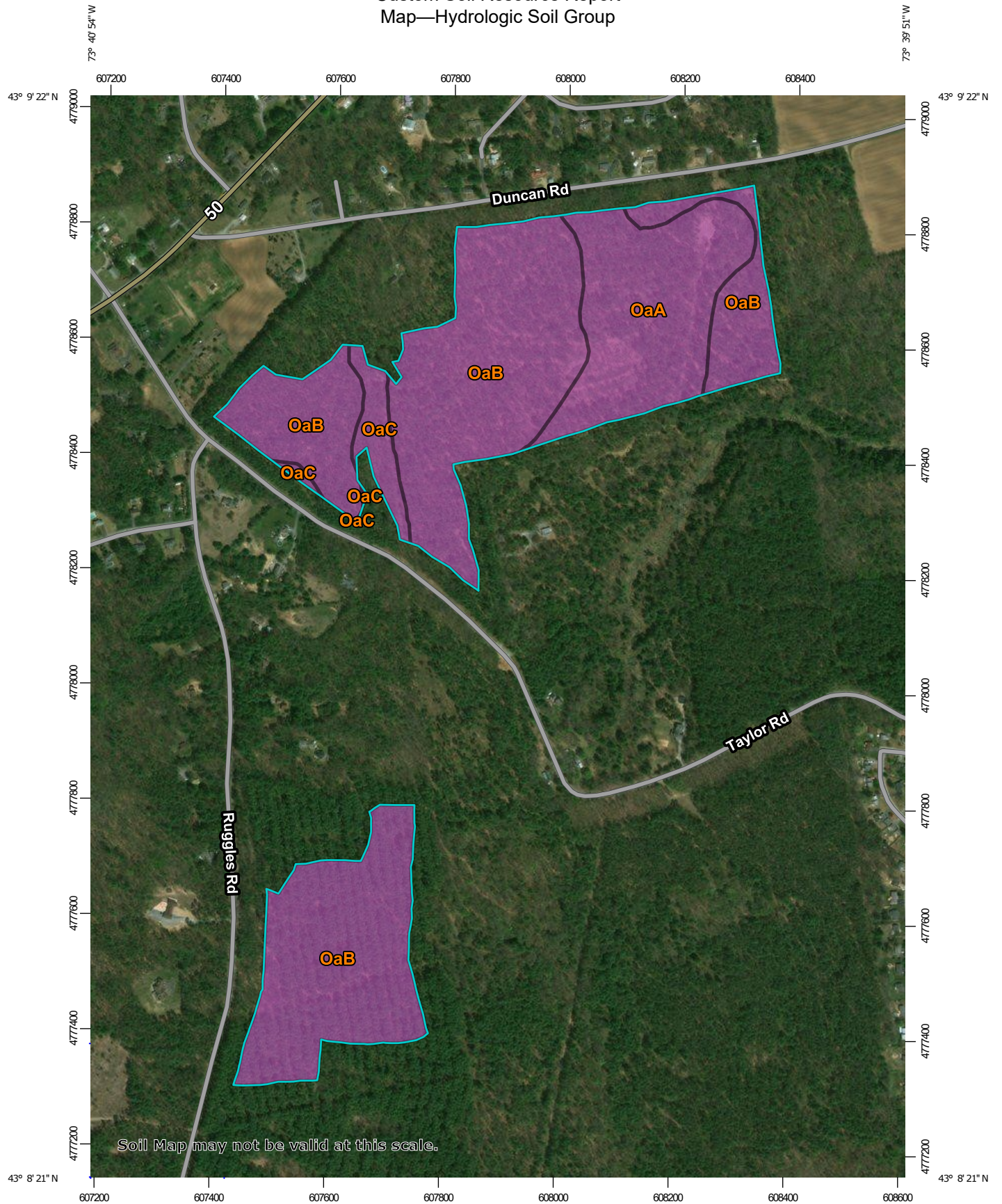
Custom Soil Resource Report

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

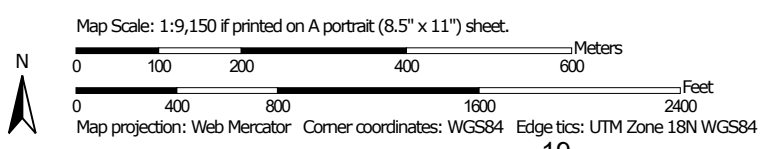
Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Custom Soil Resource Report Map—Hydrologic Soil Group




Soil Map may not be valid at this scale.



MAP LEGEND

Area of Interest (AOI)









 Area of Interest (AOI)

Soils

Soil Rating Polygons





-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

Soil Rating Lines


-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

Soil Rating Points






-  A
-  A/D
-  B
-  B/D

-  C
-  C/D
-  D
-  Not rated or not available


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Saratoga County, New York
 Survey Area Data: Version 19, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 10, 2015—Mar 29, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
OaA	Oakville loamy fine sand, nearly level	A	22.6	22.7%
OaB	Oakville loamy fine sand, undulating	A	72.9	73.3%
OaC	Oakville loamy fine sand, rolling	A	3.9	4.0%
Totals for Area of Interest			99.4	100.0%

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

References

- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Federal Register. September 18, 2002. Hydric soils of the United States.
- Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
- National Research Council. 1995. Wetlands: Characteristics and boundaries.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580
- Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

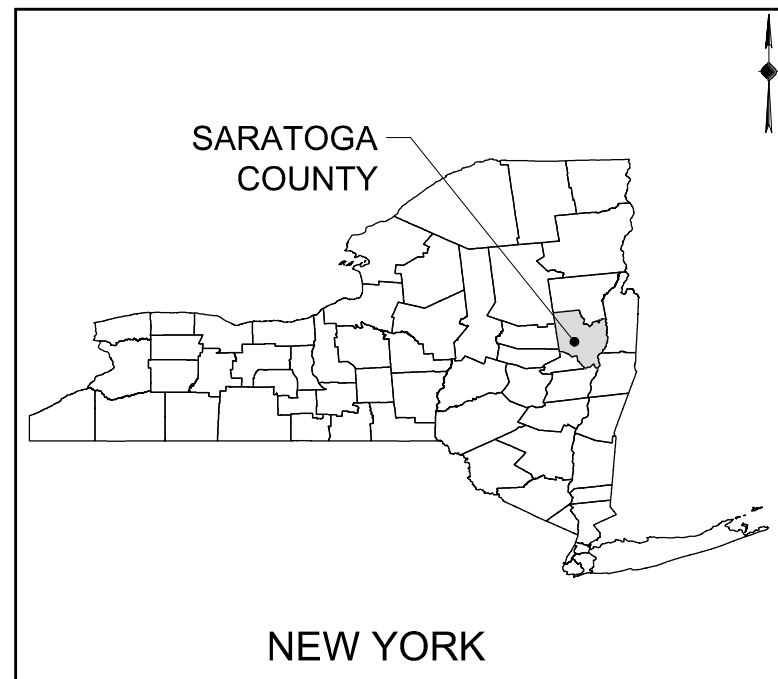
United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

APPENDIX C

EROSION & SEDIMENT CONTROL PLANS, DETAILS &
NOTES

SARATOGA COUNTY OFF-AIRPORT HABITAT MITIGATION

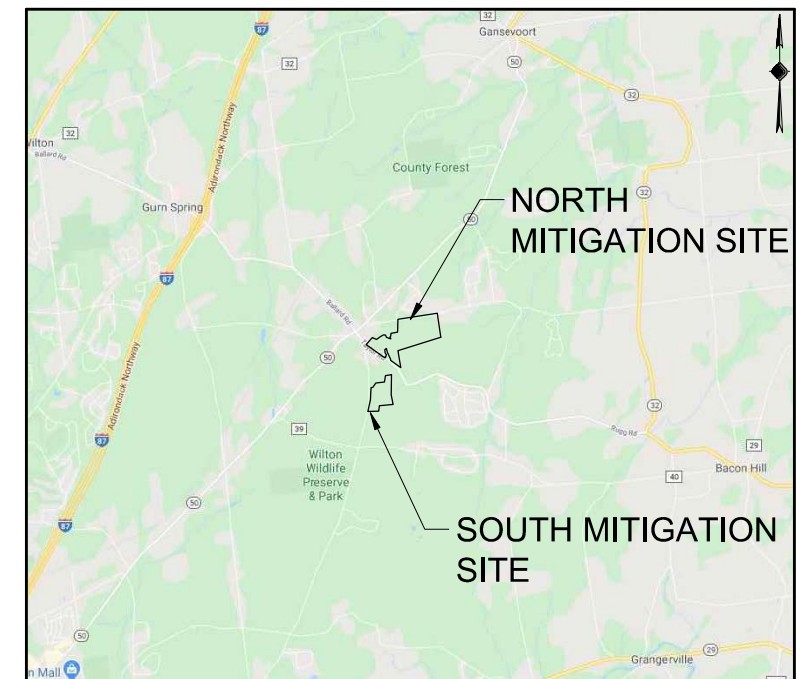


LOCATION MAP

**CONSTRUCTION BID
APRIL 2020**

**WILTON / NORTHUMBERLAND,
COUNTY OF SARATOGA
NEW YORK**

FAA A.I.P. 3-36-0004-036-2019
NYS DOT P.I.N. 1902.56
COUNTY BID # 20-PWOAHM-7



VICINITY MAP

PREPARED FOR:




SARATOGA COUNTY
40 MCMASTER STREET
BALLSTON SPA, NEW YORK
(518) 885-2213
WWW.SARATOGACOUNTYNY.GOV

PREPARED BY:

 **McFarland Johnson**
60 RAILROAD PLACE, SUITE 402
SARATOGA SPRINGS, NEW YORK 12866

DRAWING INDEX	
SHEET NUMBER	SHEET TITLE
CV-00	COVER SHEET
GN-01	GENERAL NOTES
CS-01	CONSTRUCTION PHASING PLAN
MT-01	SOUTH SITE
MT-02	NORTH SITE
MT-03	MITIGATION DETAILS

SEALED	TURNER C. BRADFORD	
PE_NO	088939	
PE_DATE	APRIL 6, 2020	

IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

GENERAL NOTES:

1. THE UNDERGROUND STRUCTURES AND UTILITIES SHOWN ON THESE PLANS HAVE BEEN PLOTTED FROM A SURVEY PREPARED BY GAYRON DE BRUIN LAND SURVEYING AND ENGINEERING, PC, 88 DURYEA ROAD, MELVILLE, NY 11747, DATED JANUARY 27, 2020 AND AVAILABLE SURVEYS AND RECORD MAPS BY OTHERS. MCFARLAND JOHNSON DOES NOT CERTIFY TO THE ACCURACY OF THEIR LOCATION AND/OR COMPLETENESS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND EXTENT OF ALL UNDERGROUND STRUCTURES AND UTILITIES PRIOR TO ANY DIGGING OR CONSTRUCTION ACTIVITIES IN THEIR VICINITY. THE CONTRACTOR SHALL HAVE ALL EXISTING UTILITIES FIELD STAKED BEFORE STARTING WORK BY CALLING 1-800-962-7962.
2. THE CONTRACTOR SHALL PERFORM ALL WORK IN COMPLIANCE WITH TITLE 29 OF FEDERAL REGULATIONS, PART 1926, SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION (OSHA).
3. HIGHWAY DRAINAGE ALONG ALL ROADS AND PRIVATE DRIVES SHALL BE KEPT CLEAN OF MUD, DEBRIS ETC. AT ALL TIMES. ALL CATCH BASINS AND STORM SEWER MANHOLES SHALL BE CLEANED PRIOR TO ACCEPTANCE BY THE TOWN.
4. THE CONTRACTOR SHALL CONSULT THE DESIGN ENGINEER BEFORE DEVIATING FROM THESE PLANS.
5. EXCAVATED WASTE MATERIAL REMOVED FROM THE SITE SHALL BE PLACED AT A LOCATION ACCEPTABLE TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION.
6. AREAS DISTURBED OR DAMAGED AS PART OF THIS PROJECT'S CONSTRUCTION THAT ARE OUTSIDE OF THE PRIMARY WORK AREA SHALL BE RESTORED, AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
7. UNLESS COVERED BY THE CONTRACT SPECIFICATIONS OR AS NOTED ON THE PLANS, ALL WORK SHALL CONFORM TO THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED JANUARY 8, 2015 AND ANY SUBSEQUENT REVISIONS.
8. MAINTENANCE AND PROTECTION OF TRAFFIC ALONG WITH SECURING THE WORK AREA SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
9. THE CONTRACTOR SHALL LOCATE, MAKE, SAFEGUARD AND PRESERVE ALL SURVEY CONTROL MONUMENTS AND ROW MONUMENTS IN THE AREAS OF CONSTRUCTION.
10. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND SAFETY PROCEDURES. THE OWNER AND/OR ARCHITECT/ ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUB CONTRACTOR OR THEIR AGENTS, EMPLOYEES OR ANY OTHER PERSON PERFORMING ANY OF THE WORK.
11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATION ASSOCIATED WITH THIS PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATION OR APPLICABLE CODES, IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE OWNERS REP. IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE OWNERS REP. SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.
12. THE CONTRACTOR SHALL CONTACT THE ENGINEER IF THEY DISCOVER ANY UTILITY LINE NOT NOTED ON THE SURVEY, TO DETERMINE IF THE LINE IS ACTIVE.
13. MCFARLAND-JOHNSON, INC. PERFORMED SITE RECONNAISSANCE AND DELINEATED WETLANDS IN OCTOBER 2019.
14. MITIGATION CONSTRUCTION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE MITIGATION MANAGEMENT AND PROTECTION PLAN, USFWS BIOLOGICAL OPINION, AND NYSDEC INCIDENTAL TAKE PERMIT.
15. CONTRACTORS SHALL USE CONSTRUCTION ENTRANCES WITH A SWING GATE AS INDICATED ON THE PLANS. SWING GATE SHALL BE KEPT CLOSED AT ALL TIMES OUTSIDE OF NORMAL WORKING HOURS.
16. WORK HOURS SHALL COMPLY WITH LOCAL NOISE ORDINANCES.
17. CONSTRUCTION VEHICLES AND EQUIPMENT SHALL NOT BE PARKED ON TOWN ROADWAYS.
18. ALL EQUIPMENT AND VEHICLES USED ON SITE WILL BE CLEANED OF ALL VISIBLE SOIL OR PLANT MATTER BEFORE ENTERING THE SITE TO PREVENT THE SPREAD OF INVASIVE PLANT SPECIES.
19. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO SOIL DISTURBANCE
20. CONSTRUCTION FENCING SHALL BE PLACED AT THE DRIP LINE (EDGE OF CANOPY) OF SAVE TREES TO PRESERVE THE MAJORITY OF THE ROOT MASS AND PREVENT ANY MECHANICAL DAMAGE TO THE TRUNK.
21. TREE STUMPS, ROOT BALLS, AND HEAVY ROOT MATERIAL SHALL BE REMOVED AND EITHER BE HAULED OFF-SITE OR CHIPPED ON-SITE AND HAULED AWAY. UNDER NO CIRCUMSTANCES SHALL THIS MATERIAL BE BURIED ON THE SITE.
22. TOPSOIL SHALL BE STRIPPED AND REMOVED OFF-SITE TO BE DETERMINED BY THE CONTRACTOR. TOPSOIL CAN BE BURIED IN SHALLOW PITS OR TRENCHES (NO DEEPER THAN 8") AND COMPACTED TO AVOID FUTURE SUBSIDENCE.
23. FOLLOWING TOPSOIL REMOVAL, LOW-ELEVATION AREAS CLOSE TO THE WATER TABLE SHALL BE LEFT UNDISTURBED.
24. IF TOPSOIL LAYER IS SEVERAL FEET DEEP (I.E. >2"), REMOVAL MAY BE INEFFICIENT. SUCH AN AREA CAN BE COVERED WITH A MINIMUM DEPTH OF 18" OF ADJACENT MINERAL SAND AS DIRECTED BY ENGINEER.
25. SURROUNDING LOWER GRADES SHALL BE BLENDED TO THE DRIP LINE GRADE OF THE SAVE TREES TO AVOID SHEER CUTS.
26. STUMPS REMAINING WITHIN THE DRIP LINE OF SAVE TREES MAY BE LEFT BY THE CONTRACTOR IF REMOVING THEM WOULD DAMAGE THE ROOTS OF THE SAVE TREES.
27. GRADING SHALL BE MOSTLY RESTRICTED TO CREATING A SMOOTH SEED BED AND FILLING POTENTIAL POTHOLES FROM ROOT BALL REMOVAL AND RUTS FROM EQUIPMENT TRACKS.
28. COMPACTION GENERATED ON THE LOGGING ROADS/SKID TRAILS AND LOADING OR STOCKPILE AREAS WILL BE AMENDED AT THE COMPLETION OF CONSTRUCTION BY DEEP TILLAGE AND/OR SOIL RESTORATION.
29. CONSTRUCTION CONTRACTOR SHALL BE RESPONSIBLE FOR COVER CROP SEEDING.
30. RESTORATION NATIVE SEEDING SHALL BE CONDUCTED BY ENVIRONMENTAL PROFESSIONAL AS DIRECTED BY THE ENGINEER.
31. WOODY PLANTING MAY NOT BE REQUIRED AND SHALL BE NECESSARY ONLY TO PROVIDE ADDITIONAL CANOPY COVER. PLANTING SHALL BE CONDUCTED BY ENVIRONMENTAL PROFESSIONAL AS DIRECTED BY THE ENGINEER.
32. INTERIOR WALKING TRAILS ON SITE SHALL BE RESTORED TO 8" WIDE WITH A MINIMUM 8" LAYER OF MULCH, LEAF LITTER, ETC. TRAIL SURFACE.
33. WORK COMMENCEMENT AND COMPLETION NOTIFICATION TO NYSDEC BASED ON PERMIT CONDITION.
34. INTERIOR 8" WIDE WALKING TRAIL/MAINTENANCE ACCESS LOCATION MAY ADJUST DEPENDING ON CONSTRUCTION OPERATIONS.

GRADING NOTES:

1. REMOVE AND STOCKPILE TOPSOIL AS DIRECTED BY THE ENGINEER.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REMOVAL OF TEMPORARY SEDIMENTATION CONTROLS, INCLUDING SILT FENCE. EROSION CONTROL MEASURES SHALL NOT BE REMOVED BEFORE VEGETATION HAS OCCURRED COMPLETELY.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF TOPSOIL TO ALL DISTURBED AREAS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN EROSION CONTROL MEASURES AT ALL TIMES.
4. EROSION CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, SARATOGA COUNTY HEALTH DEPARTMENT, AND THE COUNTY OF SARATOGA REQUIREMENTS.
6. THE CONTRACTOR SHALL DESIGNATE A MEMBER OF HIS/HER FIRM TO BE RESPONSIBLE TO MONITOR EROSION CONTROL, EROSION CONTROL STRUCTURES, TREE PROTECTION AND PRESERVATION THROUGHOUT CONSTRUCTION.
7. ALL GRADING AND EARTHWORK SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION.

SEQUENCE OF CONSTRUCTION

1. HOLD A PRE-CONSTRUCTION MEETING WITH PROJECT MANAGER, OPERATOR'S ENGINEER, CONTRACTORS & SUB-CONTRACTORS, AND REPRESENTATIVES OF SARATOGA COUNTY PRIOR TO LAND DISTURBING ACTIVITIES.
2. HAVE A QUALIFIED PROFESSIONAL CONDUCT AN ASSESSMENT OF THE SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND CERTIFY IN AN INSPECTION REPORT THAT THE APPROPRIATE EROSION AND SEDIMENT CONTROLS DESCRIBED IN THE SWPPP AS REQUIRED BY THE GP-0-20-001 HAVE BEEN ADEQUATELY INSTALLED OR IMPLEMENTED TO ENSURE OVERALL PREPAREDNESS OF THE SITE FOR THE COMMENCEMENT OF CONSTRUCTION.
3. CONSTRUCT TEMPORARY STABILIZED CONSTRUCTION ENTRANCE AT LOCATION SHOWN ON THE DRAWINGS.
4. INSTALL PERIMETER CONTROLS AT THE LOCATIONS SHOWN ON THE DRAWINGS.
5. CONSULT A QUALIFIED PROFESSIONAL TO PERFORM A SITE INSPECTION AND VERIFY THAT THE INITIAL PHASE OF EROSION CONTROL DEVICES HAVE BEEN INSTALLED PER THE DRAWINGS PRIOR TO COMMENCEMENT OF GROUND DISTURBANCE.
6. BEGIN EARTHWORK OPERATIONS.
7. COMMENCE EARTHWORK. WORK SHALL BE PROGRESSED TO ALLOW A REASONABLE ROUGH GRADING AND EARTH MOVING FOR BULK SITE GRADING.
8. STABILIZE ALL AREAS IDLE IN EXCESS OF 7 DAYS IN WHICH CONSTRUCTION WILL NOT COMMENCE WITHIN 7 DAYS.
9. ADJUST THE EROSION AND SEDIMENT CONTROL PRACTICES AS REQUIRED FOR CONTINUING CONSTRUCTION AS SHOWN ON THE EROSION & SEDIMENT CONTROL PLAN. THIS SHALL BE A PHASED ADJUSTMENT IN ORDER TO ENSURE THAT RUNOFF FROM ALL DISTURBED AREAS IS TREATED BY APPROPRIATE EROSION AND SEDIMENT CONTROL DEVICES.
10. AS AREAS ARE BROUGHT TO GRADE, STABILIZE WITH TOPSOIL, SEED AND MULCH PER SPECIFICATIONS.
11. A QUALIFIED PROFESSIONAL SHALL PERFORM A SITE ASSESSMENT TO CONFIRM THAT 80% UNIFORM GERMINATION/STABILIZATION HAS BEEN ACHIEVED PRIOR TO THE REMOVAL OF ALL REMAINING TEMPORARY EROSION AND SEDIMENT CONTROLS.
12. WEEKLY INSPECTIONS SHALL BE PERFORMED BY A QUALIFIED PROFESSIONAL DURING ACTIVE CONSTRUCTION TO VERIFY ADHERENCE TO MITIGATION MANAGEMENT AND PROTECTION PLAN.

QUANTITY TABLES:

Mitigation - Base Bid - South Site			
Item No.	Description Of Item	Unit	Quantity
M-110-5.1	ENGINEER'S FIELD OFFICE	LS	1
M-120-3.1	MAINTENANCE AND PROTECTION OF TRAFFIC	LS	1
M-150-5.1	PROJECT SURVEY AND STAKEOUT	LS	1
C-102-5.1	TEMPORARY SEEDING AND MULCHING	SY	130700
C-102-5.2	CONSTRUCTION ENTRANCE	EA	1
C-102-5.3	INSTALLATION AND REMOVAL OF SILT FENCE	LF	700
C-105-6.1	MOBILIZATION (5% MAX.)	LS	1
P-151-4.1	CLEARING AND GRUBBING	AC	30
P-152-4.1	UNCLASSIFIED EXCAVATION	CY	43600
S-600-5.1	RESTORATION PLANTING	LS	1

Mitigation - Add Alt - North Site			
Item No.	Description Of Item	Unit	Quantity
M-110-5.1	ENGINEER'S FIELD OFFICE	LS	1
M-120-3.1	MAINTENANCE AND PROTECTION OF TRAFFIC	LS	1
M-150-5.1	PROJECT SURVEY AND STAKEOUT	LS	1
C-102-5.1	TEMPORARY SEEDING AND MULCHING	SY	398600
C-102-5.2	CONSTRUCTION ENTRANCE	EA	2
C-102-5.3	INSTALLATION AND REMOVAL OF SILT FENCE	LF	3900
C-105-6.1	MOBILIZATION (5% MAX.)	LS	1
P-151-4.1	CLEARING AND GRUBBING	AC	90
P-152-4.1	UNCLASSIFIED EXCAVATION	CY	132900
S-600-5.1	RESTORATION PLANTING	LS	1



McFarland Johnson
Engineers, Planning & Construction Administration

60 RAILROAD PLACE, SUITE 402
 SARATOGA SPRINGS, NEW YORK 12866
 P:518-580-9380 F:518-580-9383
 SaratogaROM@mjinc.com

PROJECT MILESTONE

CONSTRUCTION BID

NO.	DATE	DESCRIPTION

CLIENT: **SARATOGA COUNTY**

WILTON / NORTHLUMBERLAND, NEW YORK

PROJECT: **OFF-AIRPORT HABITAT MITIGATION**

DRAWN	NSO
DESIGNED	ANR
CHECKED	TCB
SCALE	N.T.S.
DATE	APRIL 2020
PROJECT	18139.02



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

GENERAL NOTES

DRAWING NUMBER

GN-01

02 OF 06

PHASE REQUIREMENTS:

PHASE	CALENDAR TIME	WORK AREA	REQUIREMENTS TO BEGIN	WORK RESTRICTIONS/ REQUIREMENTS	LIQUIDATED DAMAGES	NOTES
BASE BID	120 CALENDAR DAYS	B1	NOTICE TO PROCEED	NONE	\$1,500/ CALENDAR DAY OR PORTION THEREOF	MAY RUN CONCURRENT WITH AREA B2
ADD ALT.	160 CALENDAR DAYS	B2	NOTICE TO PROCEED	NONE	\$1,500/ CALENDAR DAY OR PORTION THEREOF	MAY RUN CONCURRENT WITH AREA B1

WORK ITEMS/SEQUENCE OF CONSTRUCTION:

SEQUENCE	WORK ITEM
1	GRUB EXISTING STUMPS
2	STRIP AND REMOVE EXISTING TOP SOIL
3	ROUGH GRADE TERRAIN
4	PLANT HABITAT SEEDS

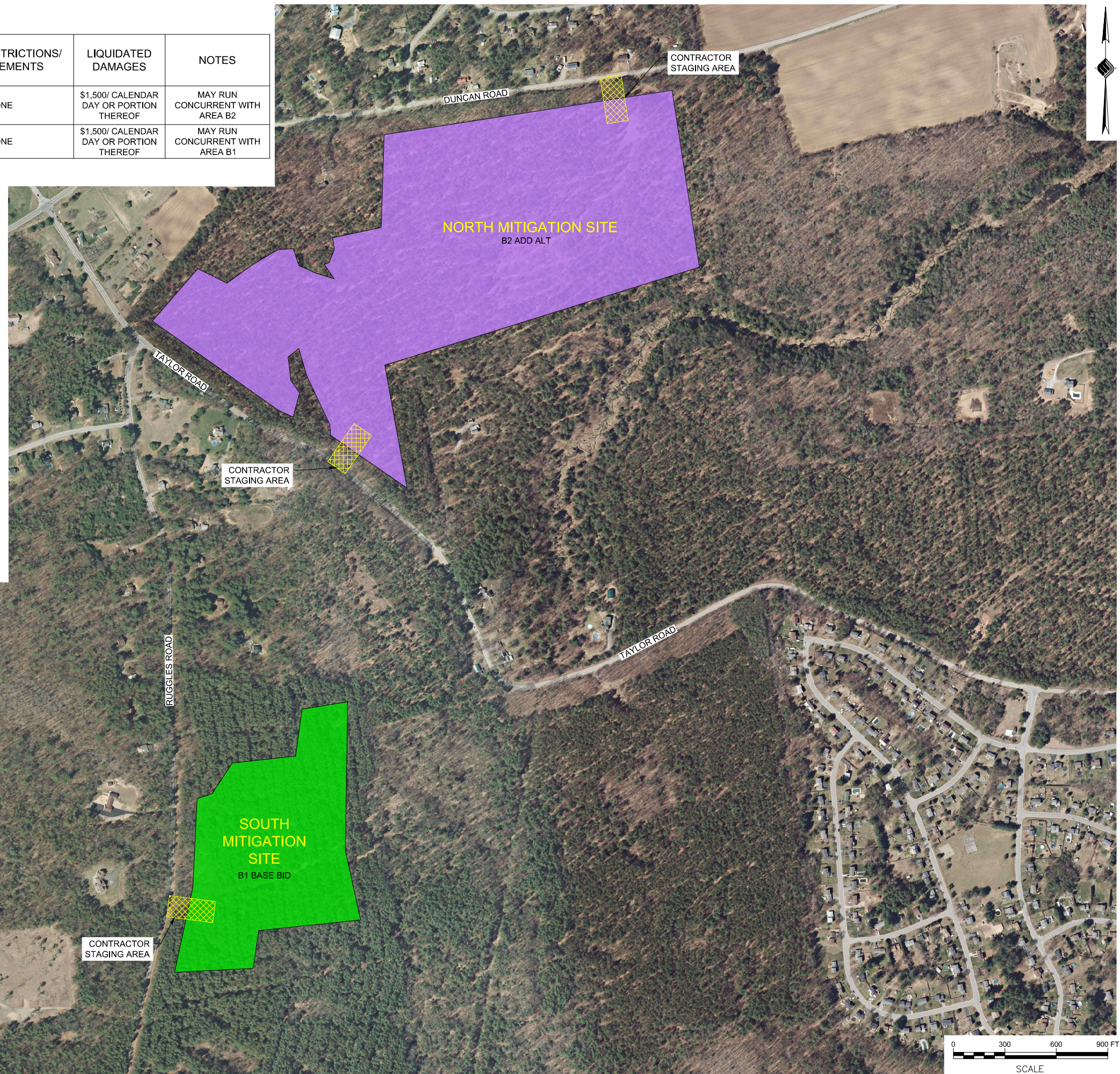
WORK ITEMS:

- GRUB EXISTING TREE STUMPS
- STRIP AND REMOVE EXISTING TOP SOIL
- ROUGH GRADE TERRAIN
- PLANT HABITAT SEEDS

NOTE:
 WORK AREA B1 REPRESENTS THE BASE BID. WORK AREA B2 REPRESENTS THE ADD ALTERNATE.

LEGEND:

- WORK AREA B1
- WORK AREA B2




McFarland Johnson
 Engineers, Planning & Construction Administration
 60 RAILROAD PLACE
 SUITE 402
 SARATOGA SPRINGS, NEW YORK 12866
 P: 518-580-9380 F: 518-580-9383
 mjinc.com

PROJECT MILESTONE
CONSTRUCTION BID

NO.	DATE	DESCRIPTION

CLIENT: **SARATOGA COUNTY**
WILTON / NORTHUMBERLAND, NEW YORK

PROJECT: **OFF-AIRPORT HABITAT MITIGATION**

DRAWN	NSO
DESIGNED	ANR
CHECKED	TCB
SCALE	1" = 300'
DATE	APRIL 2020
PROJECT	18139.02



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DRAWING TITLE
CONSTRUCTION SAFETY AND PHASING PLAN

DRAWING NUMBER
CS-01
 03 OF 06



McFarland Johnson
 Engineers, Planning & Construction Administration
 60 RAILROAD PLACE, SUITE 402
 SARATOGA SPRINGS, NEW YORK 12866
 P: 518-580-9380 F: 518-580-9383
 SaratogaROM@mjinc.com

PROJECT MILESTONE
CONSTRUCTION BID

NO.	DATE	DESCRIPTION

CLIENT: **SARATOGA COUNTY**
WILTON / NORTHUMBERLAND, NEW YORK
 PROJECT: **OFF-AIRPORT HABITAT MITIGATION**

DRAWN	NSO
DESIGNED	ANR
CHECKED	TCB
SCALE	1" = 100'
DATE	APRIL 2020
PROJECT	18139.02



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DRAWING TITLE
SOUTH SITE

DRAWING NUMBER
MT-01
 04 OF 06

SOUTH SITE
25 ACRES

ALL WORK SHOWN ON THIS PLAN IS INCLUSIVE TO THE BASE BID

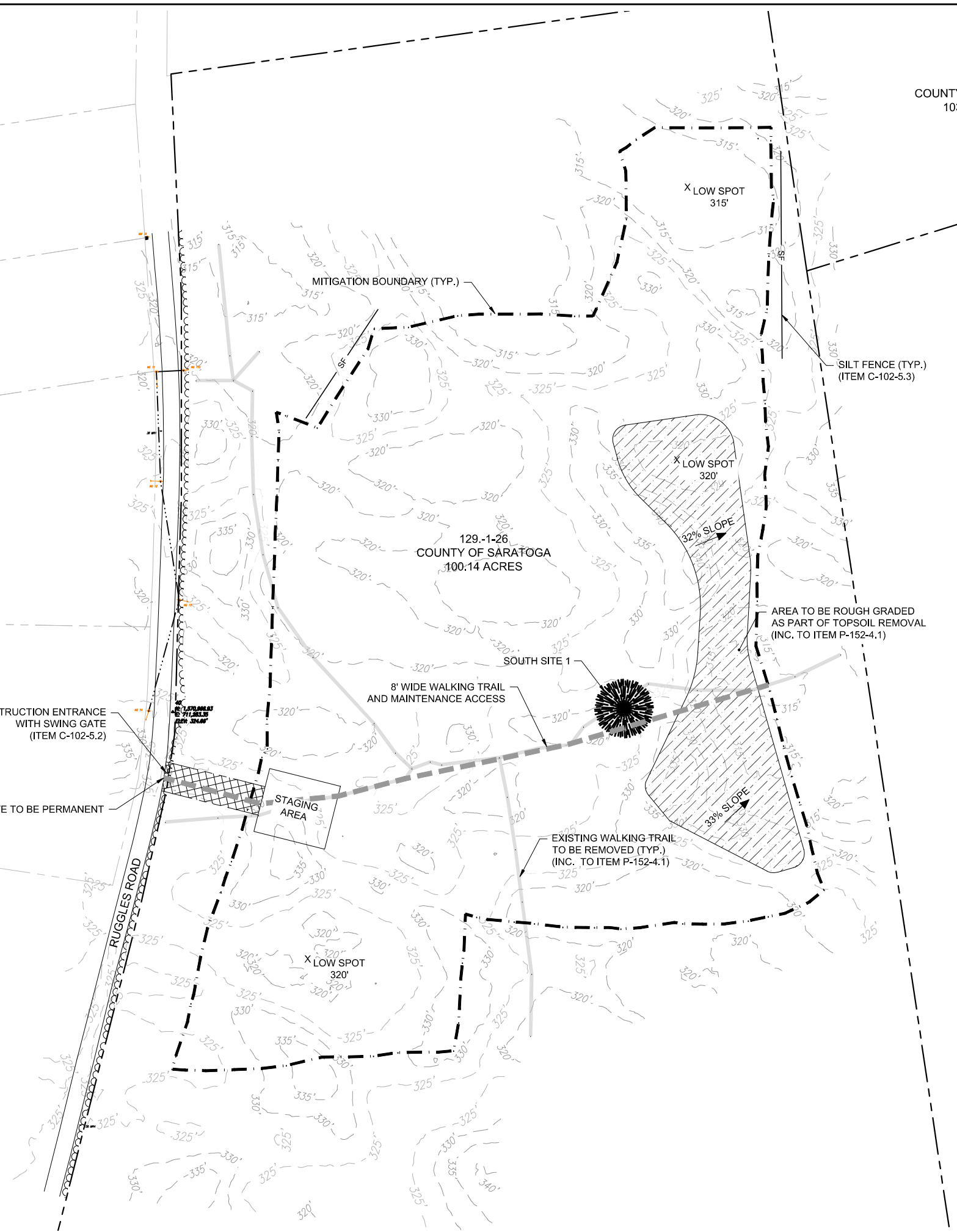
129.-1-62
 COUNTY OF SARATOGA
 103.15 ACRES

129.-1-26
 COUNTY OF SARATOGA
 100.14 ACRES

129.-1-59
 COUNTY OF SARATOGA
 146.19 ACRES

129.-1-116
 NYSDEC
 157.26 ACRES

NYSDEC FOX TRACT
 (BUTTERFLY HABITAT)



SAVE TREE REPRESENTATIVE PLOT		
REPRESENTATIVE PLOT DESCRIPTION	TREE SPECIES	TREE SIZE
SOUTH SITE 1	BLACK OAK	11" DBH

NOTE:
 REPRESENTATIVE PLOTS, LOCATED IN THE FIELD IN DECEMBER 2019/JANUARY 2020, ARE APPROXIMATELY 1/2 ACRE. PLOT REPRESENTS THE TYPICAL TYPE AND SIZE OF TREES TO REMAIN ONSITE WITHIN THE MITIGATION AREA.

- LEGEND**
- COUNTY PROPERTY LINE
 - ADJACENT PROPERTY LINE
 - 320- EXISTING MAJOR CONTOUR
 - 325- EXISTING MINOR CONTOUR
 - EXISTING TREE LINE
 - EXISTING OVERHEAD ELECTRIC
 - EXISTING EASEMENT
 - EXISTING STREAM
 - EXISTING SKID TRAIL
 - EXISTING WALKING TRAIL TO BE REMOVED
 - EXISTING WALKING TRAIL TO REMAIN
 - 8' WIDE WALKING TRAIL / MAINTENANCE ACCESS
 - LIMITS OF MITIGATION
 - SILT FENCE
 - GRADING AREA
 - CHAINLINK FENCE
 - TREE STUMP
 - DECIDUOUS TREE
 - UTILITY POLE W/ LIGHT
 - UTILITY POLE
 - UTILITY HANDHOLE
 - SIGN
 - x SPOT ELEVATION



NORTH SITE 75 ACRES

ALL WORK SHOWN ON THIS PLAN IS INCLUSIVE TO THE ADD ALT



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Engineers, Planning & Construction Administration
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SARATOGA SPRINGS, NEW YORK 12866
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SaratogaROM@mjinc.com

PROJECT MILESTONE

CONSTRUCTION BID		
NO.	DATE	DESCRIPTION

CLIENT: SARATOGA COUNTY
WILTON / NORTHUMBERLAND, NEW YORK
PROJECT: OFF-AIRPORT HABITAT MITIGATION

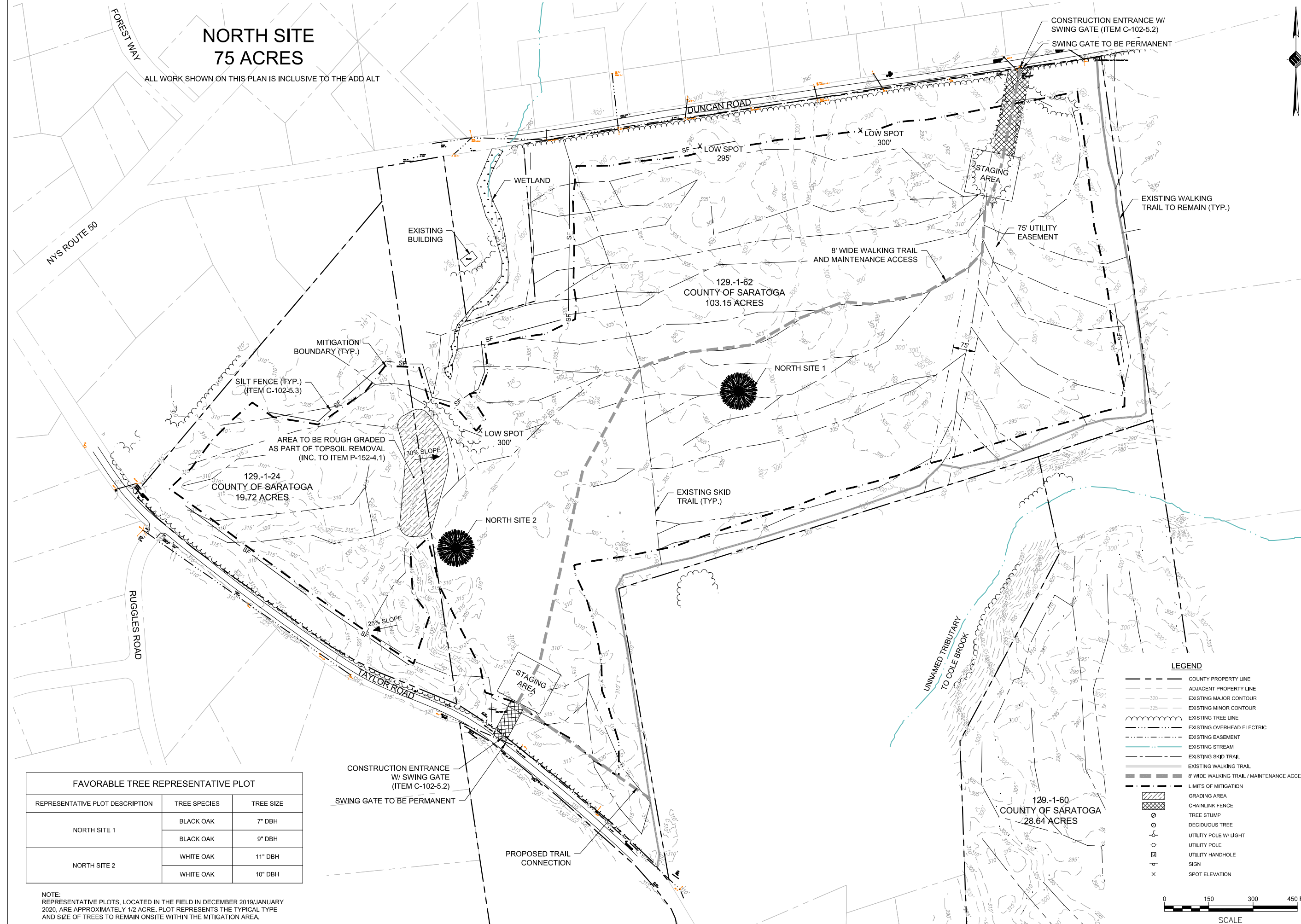
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DESIGNED	ANR
CHECKED	TCB
SCALE	1" = 150'
DATE	APRIL 2020
PROJECT	18139.02



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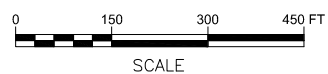
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NORTH SITE

DRAWING NUMBER
MT-02
05 OF 06



LEGEND

- COUNTY PROPERTY LINE
- - - ADJACENT PROPERTY LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING TREE LINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING EASEMENT
- EXISTING STREAM
- EXISTING SKID TRAIL
- EXISTING WALKING TRAIL
- 8' WIDE WALKING TRAIL / MAINTENANCE ACCESS
- LIMITS OF MITIGATION
- GRADING AREA
- CHAINLINK FENCE
- ⊙ TREE STUMP
- ⊙ DECIDUOUS TREE
- ⊙ UTILITY POLE W/ LIGHT
- ⊙ UTILITY POLE
- ⊙ UTILITY HANDHOLE
- ⊙ SIGN
- x SPOT ELEVATION



FAVORABLE TREE REPRESENTATIVE PLOT

REPRESENTATIVE PLOT DESCRIPTION	TREE SPECIES	TREE SIZE
NORTH SITE 1	BLACK OAK	7" DBH
	BLACK OAK	9" DBH
NORTH SITE 2	WHITE OAK	11" DBH
	WHITE OAK	10" DBH

NOTE: REPRESENTATIVE PLOTS, LOCATED IN THE FIELD IN DECEMBER 2019/JANUARY 2020, ARE APPROXIMATELY 1/2 ACRE. PLOT REPRESENTS THE TYPICAL TYPE AND SIZE OF TREES TO REMAIN ONSITE WITHIN THE MITIGATION AREA.



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Engineers, Planning & Construction Administration

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P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE

CONSTRUCTION BID

NO.	DATE	DESCRIPTION

CLIENT: SARATOGA COUNTY
 WILTON / NORTHUMBERLAND, NEW YORK
 PROJECT: OFF-AIRPORT HABITAT MITIGATION

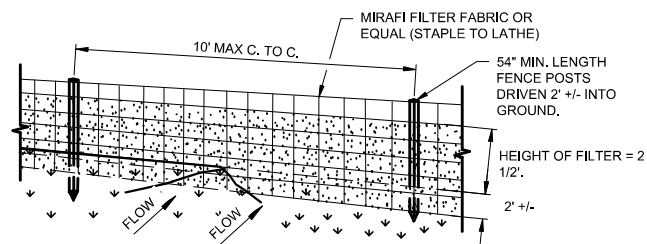
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DESIGNED	ANR
CHECKED	TCB
SCALE	N.T.S.
DATE	APRIL 2020
PROJECT	18139.02



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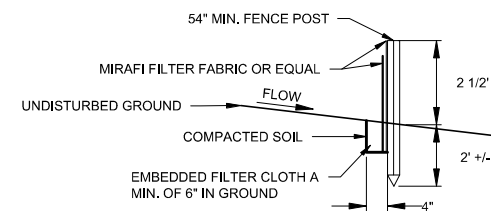
DRAWING TITLE
MITIGATION DETAILS

DRAWING NUMBER
MT-03
06 OF 06



PERSPECTIVE VIEW

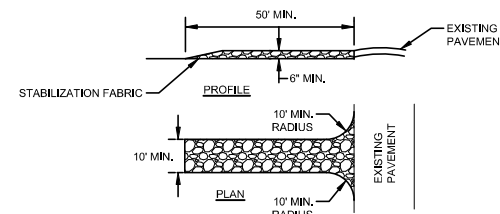
- NOTES:
- MIRAFI FILTER FABRIC TO BE SECURED TO FENCE POSTS WITH STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
 - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
 - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.



SECTION VIEW

SILT FENCE

(ITEM C-102-5.3)

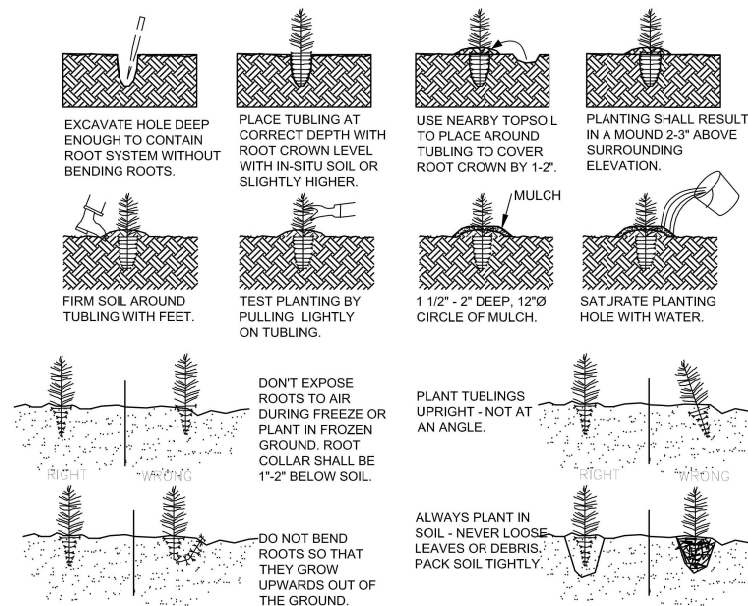


NOTES:

- STONE SIZE - USE #3 CRUSHED STONE OR GRAVEL (PER NYS DOT SECTION 209).
- LENGTH - NOT LESS THAN 50 FEET.
- THICKNESS - NOT LESS THAN SIX (6) INCHES.
- WIDTH - TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
- FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE

(ITEM C-102-5.2)



PLANTING TUBELINGS

(INCIDENTAL TO ITEM S-600-5.1)

SITE MANAGED BY COUNTY OF SARATOGA FOR KARNER BLUE BUTTERFLY AND FROSTED ELFIN IN COOPERATION WITH NYSDEC AND USFWS
NO MOTORIZED VEHICLES
PLEASE RESPECT HABITAT AND STAY ON TRAILS

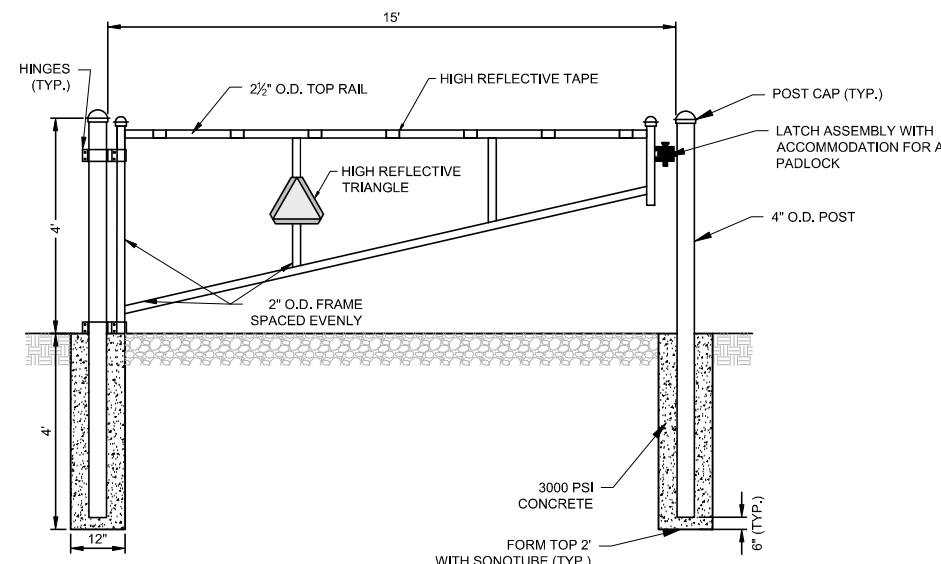
PLEASE STAY ON TRAIL

- NOTES:
- SIGN FOR PERMANENT INSTALLATION AT CONSTRUCTION ENTRANCES. SIGN FACE TO BE PROVIDED BY SARATOGA COUNTY.
 - SIGN TO BE INSTALLED AT EACH CONSTRUCTION ENTRANCE OR AS DIRECTED BY THE ENGINEER.
 - SIGN INSTALLATION SHALL BE ON A DOUBLE STRUT AND SHALL CONFORM TO NYS DOT SPECIFICATIONS SECTION 645.

SIGNAGE

(INCIDENTAL TO ITEM M-120-3.1)

- NOTES:
- SIGN FOR PERMANENT INSTALLATION ALONG WALKING TRAILS. SIGN FACE TO BE PROVIDED BY SARATOGA COUNTY.
 - SIGN TO BE INSTALLED ALONG THE INTERIOR TRAIL EVERY 100 FT. AND ALONG THE EXTERIOR TRAIL EVERY 200 FT. OR AS DIRECTED BY THE ENGINEER.
 - SIGN INSTALLATION SHALL BE ON A SINGLE STRUT AND SHALL CONFORM TO NYS DOT SPECIFICATIONS SECTION 645.



NOTES:

- ALL STEEL PIPE TO BE GALVANIZED STEEL.
- CONCRETE INCLUSIVE TO ITEM M-120-3.1.
- A COMMERCIAL GRADE COMBINATION PADLOCK WITH THE SAME COMBINATION SHALL BE INSTALLED ON ALL MAINTENANCE GATES, AN ADDITIONAL TWO (2) PADLOCKS SHALL BE FURNISHED TO THE OWNER INCLUSIVE TO ITEM M-120-3.1.

MANUAL SINGLE SWING BARRIER GATE

(INC. TO ITEM M-120-3.1)

SEED AND PLANTING TABLES:

COVER CROP (INC. TO ITEM C-102-5.1)					
BOTANICAL NAME	COMMON NAME	SPRING	SUMMER	FALL	LBS./AC
LOLIUM MULTIFLORUM	ANNUAL RYE	X	X		30
AVENA SATIVA	COMMON OAT		X		40
SECALE CERALE	WINTER RYE			X	40

RESTORATION NATIVE SEED MIX (INC. TO ITEM S-600-5.1)				
BOTANICAL NAME	COMMON NAME	OZ/ACRE	LBS/AC	SEEDS PSF
ANEMONE VIRGINIANA	TALL ANEMONE	3	0.19	1.93
APOCYNUM CANNABINUM	INDIAN HEMP	1.8	0.11	0.83
ASCLEPIAS SYRIACA	COMMON MILKWEED	4	0.25	0.39
ASCLEPIAS TUBEROSA	BUTTERFLY MILKWEED	8	0.5	0.79
CEANOTHUS AMERICANUS	NEW JERSEY TEA	2.9	0.18	0.51
LUPINUS PERENNIS	BLUE LUPINE	56	3.5	1.27
MONARDA PUNCTATA	HORSE MINT	1.95	0.12	4.03
SCHIZACHYRIUM SCOPARIUS	LITTLE BLUESTEM	11.61	0.73	4.0
SOLIDAGO NEMORALIS	OLD-FIELD GOLDENROD	0.05	0.0	0.34
		89.31	5.58	14.09

WOODY ENHANCEMENT SPECIES (INC. TO ITEM S-600-5.1)			
BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY/AC
AMELANCHIER SPICATA	DWARF SERVICEBERRY	TUBELING 12-18"	12
CORYLUS AMERICANA	AMERICAN HAZELNUT	TUBELING 12-18"	6
PINUS RIGIDA	PITCH PINE	TUBELING 12-18"	5
SALIX HUMILIS	PRAIRIE WILLOW	TUBELING 12-18"	12

APPENDIX D

NOI, SPDES PERMIT, AND ACKNOWLEDGEMENT
LETTER



Department of
Environmental
Conservation

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

From

CONSTRUCTION ACTIVITY

Permit No. GP- 0-20-001

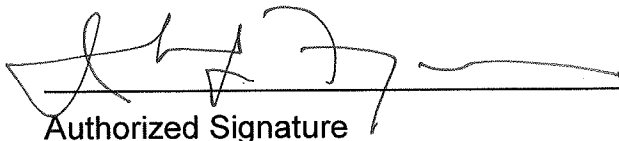
Issued Pursuant to Article 17, Titles 7, 8 and Article 70
of the Environmental Conservation Law

Effective Date: January 29, 2020

Expiration Date: January 28, 2025

John J. Ferguson

Chief Permit Administrator



Authorized Signature

1-23-20

Date

Address: NYS DEC
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

PREFACE

Pursuant to Section 402 of the Clean Water Act (“CWA”), stormwater *discharges* from certain *construction activities* are unlawful unless they are authorized by a *National Pollutant Discharge Elimination System (“NPDES”)* permit or by a state permit program. New York administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7, 8 and Article 70.

An *owner or operator* of a *construction activity* that is eligible for coverage under this permit must obtain coverage prior to the *commencement of construction activity*. Activities that fit the definition of “*construction activity*”, as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a *point source* and therefore, pursuant to ECL section 17-0505 and 17-0701, the *owner or operator* must have coverage under a SPDES permit prior to *commencing construction activity*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

***Note: The italicized words/phrases within this permit are defined in Appendix A.**

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM
CONSTRUCTION ACTIVITIES**

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Part 1. PERMIT COVERAGE AND LIMITATIONS

A. Permit Application

This permit authorizes stormwater *discharges to surface waters of the State* from the following *construction activities* identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;
2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department has determined that a *SPDES* permit is required for stormwater *discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of *pollutants to surface waters of the State*.
3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

B. Effluent Limitations Applicable to Discharges from Construction Activities

Discharges authorized by this permit must achieve, at a minimum, the effluent limitations in Part I.B.1. (a) – (f) of this permit. These limitations represent the degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement and maintain control measures to *minimize the discharge of pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part I.B.1.(a) – (f) of this permit and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in the *Stormwater Pollution Prevention Plan* (“SWPPP”) the reason(s) for the

deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

- a. **Erosion and Sediment Controls.** Design, install and maintain effective erosion and sediment controls to *minimize* the *discharge of pollutants* and prevent a violation of the *water quality standards*. At a minimum, such controls must be designed, installed and maintained to:
- (i) *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharges*;
 - (ii) Control stormwater *discharges*, including both peak flowrates and total stormwater volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points;
 - (iii) *Minimize* the amount of soil exposed during *construction activity*;
 - (iv) *Minimize* the disturbance of *steep slopes*;
 - (v) *Minimize* sediment *discharges* from the site;
 - (vi) Provide and maintain *natural buffers* around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharges*, unless *infeasible*;
 - (vii) *Minimize* soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted;
 - (viii) Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and
 - (ix) *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of pollutants that could be discharged from the site.
- b. **Soil Stabilization.** In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased. For construction sites that *directly discharge* to one of the 303(d) segments

listed in Appendix E or is located in one of the watersheds listed in Appendix C, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. See Appendix A for definition of *Temporarily Ceased*.

- c. **Dewatering.** *Discharges* from *dewatering* activities, including *discharges* from *dewatering* of trenches and excavations, must be managed by appropriate control measures.

- d. **Pollution Prevention Measures.** Design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be designed, installed, implemented and maintained to:
 - (i) *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. This applies to washing operations that use clean water only. Soaps, detergents and solvents cannot be used;

 - (ii) *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation and to stormwater. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use) ; and

 - (iii) Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.

- e. **Prohibited *Discharges*.** The following *discharges* are prohibited:
 - (i) Wastewater from washout of concrete;

 - (ii) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;

- (iii) Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance;
 - (iv) Soaps or solvents used in vehicle and equipment washing; and
 - (v) Toxic or hazardous substances from a spill or other release.
- f. Surface Outlets. When discharging from basins and impoundments, the outlets shall be designed, constructed and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

C. Post-construction Stormwater Management Practice Requirements

1. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must select, design, install, and maintain the practices to meet the *performance criteria* in the New York State Stormwater Management Design Manual (“Design Manual”), dated January 2015, using sound engineering judgment. Where post-construction stormwater management practices (“SMPs”) are not designed in conformance with the *performance criteria* in the Design Manual, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.
2. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must design the practices to meet the applicable *sizing criteria* in Part I.C.2.a., b., c. or d. of this permit.

a. Sizing Criteria for New Development

- (i) Runoff Reduction Volume (“RRv”): Reduce the total Water Quality Volume (“WQv”) by application of RR techniques and standard SMPs with RRv capacity. The total WQv shall be calculated in accordance with the criteria in Section 4.2 of the Design Manual.
- (ii) Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part I.C.2.a.(i) of this permit due to site limitations shall direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRv capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQv shall be documented in the SWPPP.

For each impervious area that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered infeasible.

In no case shall the runoff reduction achieved from the newly constructed impervious areas be less than the Minimum RRv as calculated using the criteria in Section 4.3 of the Design Manual.

The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

- (iii) Channel Protection Volume (“Cpv”): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
 - (1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
 - (2) The site discharges directly to tidal waters, or fifth order or larger streams.

- (iv) *Overbank* Flood Control Criteria (“Qp”): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
 - (1) the site discharges directly to tidal waters or fifth order or larger streams, or
 - (2) A downstream analysis reveals that *overbank* control is not required.

- (v) Extreme Flood Control Criteria (“Qf”): Requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
 - (1) the site discharges directly to tidal waters or fifth order or larger streams, or
 - (2) A downstream analysis reveals that *overbank* control is not required.

b. Sizing Criteria for New Development in Enhanced Phosphorus Removal Watershed

- (i) Runoff Reduction Volume (RRv): Reduce the total Water Quality Volume (WQv) by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24 hour design storm over the post-developed watershed and shall be

calculated in accordance with the criteria in Section 10.3 of the Design Manual.

- (ii) Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part I.C.2.b.(i) of this permit due to *site limitations* shall direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv shall be documented in the SWPPP. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible*.

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 10.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

- (iii) Channel Protection Volume (Cpv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
 - (1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
 - (2) The site *discharges* directly to tidal waters, or fifth order or larger streams.
- (iv) *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
 - (1) the site *discharges* directly to tidal waters or fifth order or larger streams, or
 - (2) A downstream analysis reveals that *overbank* control is not required.
- (v) Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
 - (1) the site *discharges* directly to tidal waters or fifth order or larger streams, or
 - (2) A downstream analysis reveals that *overbank* control is not required.

c. Sizing Criteria for Redevelopment Activity

- (i) Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* shall be addressed by one of the following options. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C of this permit) shall calculate the WQv in accordance with Section 10.3 of the Design Manual. All other *redevelopment activities* shall calculate the WQv in accordance with Section 4.2 of the Design Manual.
- (1) Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the Design Manual must be applied to all newly created pervious areas, or
 - (2) Capture and treat a minimum of 25% of the WQv from the disturbed, *impervious area* by the application of standard SMPs; or reduce 25% of the WQv from the disturbed, *impervious area* by the application of RR techniques or standard SMPs with RRv capacity., or
 - (3) Capture and treat a minimum of 75% of the WQv from the disturbed, *impervious area* as well as any additional runoff from tributary areas by application of the alternative practices discussed in Sections 9.3 and 9.4 of the Design Manual., or
 - (4) Application of a combination of 1, 2 and 3 above that provide a weighted average of at least two of the above methods. Application of this method shall be in accordance with the criteria in Section 9.2.1(B) (IV) of the Design Manual.

If there is an existing post-construction stormwater management practice located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 – 4 above.

- (ii) Channel Protection Volume (Cpv): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.
- (iii) *Overbank* Flood Control Criteria (Qp): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.
- (iv) Extreme Flood Control Criteria (Qf): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site

d. Sizing Criteria for Combination of Redevelopment Activity and New Development

Construction projects that include both New Development and Redevelopment Activity shall provide post-construction stormwater management controls that meet the sizing criteria calculated as an aggregate of the Sizing Criteria in Part I.C.2.a. or b. of this permit for the New Development portion of the project and Part I.C.2.c of this permit for Redevelopment Activity portion of the project.

D. Maintaining Water Quality

The Department expects that compliance with the conditions of this permit will control *discharges* necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any discharge to either cause or contribute to a violation of *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, such as:

1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;
2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and
3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

If there is evidence indicating that the stormwater *discharges* authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standards*; the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this general permit and document in accordance with Part IV.C.4. of this general permit. To address the *water quality standard* violation the *owner or operator* may need to provide additional information, include and implement appropriate controls in the SWPPP to correct the problem, or obtain an individual SPDES permit.

If there is evidence indicating that despite compliance with the terms and conditions of this general permit it is demonstrated that the stormwater *discharges* authorized by this permit are causing or contributing to a violation of *water quality standards*, or if the Department determines that a modification of the permit is necessary to prevent a violation of *water quality standards*, the authorized *discharges* will no longer be eligible for coverage under this permit. The Department may require the *owner or operator* to obtain an individual SPDES permit to continue discharging.

E. Eligibility Under This General Permit

1. This permit may authorize all *discharges* of stormwater from *construction activity* to *surface waters of the State* and *groundwaters* except for ineligible *discharges* identified under subparagraph F. of this Part.
2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater *discharges*; including stormwater runoff, snowmelt runoff, and surface runoff and drainage, from *construction activities*.
3. Notwithstanding paragraphs E.1 and E.2 above, the following non-stormwater discharges are authorized by this permit: those listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: “Discharges from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned”; waters to which other components have not been added that are used to control dust in accordance with the SWPPP; and uncontaminated *discharges* from *construction site* de-watering operations. All non-stormwater discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with *water quality standards* in Part I.D of this permit.
4. The *owner or operator* must maintain permit eligibility to *discharge* under this permit. Any *discharges* that are not compliant with the eligibility conditions of this permit are not authorized by the permit and the *owner or operator* must either apply for a separate permit to cover those ineligible *discharges* or take steps necessary to make the *discharge* eligible for coverage.

F. Activities Which Are Ineligible for Coverage Under This General Permit

All of the following are **not** authorized by this permit:

1. *Discharges* after *construction activities* have been completed and the site has undergone *final stabilization*;
2. *Discharges* that are mixed with sources of non-stormwater other than those expressly authorized under subsection E.3. of this Part and identified in the SWPPP required by this permit;
3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII.K. of this permit;
4. *Construction activities* or *discharges* from *construction activities* that may adversely affect an *endangered or threatened species* unless the *owner or*

operator has obtained a permit issued pursuant to 6 NYCRR Part 182 for the project or the Department has issued a letter of non-jurisdiction for the project. All documentation necessary to demonstrate eligibility shall be maintained on site in accordance with Part II.D.2 of this permit;

5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;
6. *Construction activities* for residential, commercial and institutional projects:
 - a. Where the *discharges* from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and
 - b. Which are undertaken on land with no existing *impervious cover*; and
 - c. Which disturb one (1) or more acres of land designated on the current United States Department of Agriculture (“USDA”) Soil Survey as Soil Slope Phase “D”, (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase “E” or “F” (regardless of the map unit name), or a combination of the three designations.
7. *Construction activities* for linear transportation projects and linear utility projects:
 - a. Where the *discharges* from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and
 - b. Which are undertaken on land with no existing *impervious cover*; and
 - c. Which disturb two (2) or more acres of land designated on the current USDA Soil Survey as Soil Slope Phase “D” (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase “E” or “F” (regardless of the map unit name), or a combination of the three designations.

8. *Construction activities* that have the potential to affect an *historic property*, unless there is documentation that such impacts have been resolved. The following documentation necessary to demonstrate eligibility with this requirement shall be maintained on site in accordance with Part II.D.2 of this permit and made available to the Department in accordance with Part VII.F of this permit:
- a. Documentation that the *construction activity* is not within an archeologically sensitive area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant.
 - 1-5 acres of disturbance - 20 feet
 - 5-20 acres of disturbance - 50 feet
 - 20+ acres of disturbance - 100 feet, or
 - b. DEC consultation form sent to OPRHP, and copied to the NYS DEC Agency Historic Preservation Officer (APO), and
 - (i) the State Environmental Quality Review (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or
 - (ii) documentation from OPRHP that the *construction activity* will result in No Impact; or
 - (iii) documentation from OPRHP providing a determination of No Adverse Impact; or
 - (iv) a Letter of Resolution signed by the owner/operator, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA); or
 - c. Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

- (i) No Affect
- (ii) No Adverse Affect
- (iii) Executed Memorandum of Agreement, or

d. Documentation that:

- (i) SHPA Section 14.09 has been completed by NYS DEC or another state agency.
9. *Discharges from construction activities* that are subject to an existing SPDES individual or general permit where a SPDES permit for *construction activity* has been terminated or denied; or where the *owner or operator* has failed to renew an expired individual permit.

Part II. PERMIT COVERAGE

A. How to Obtain Coverage

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a regulated, traditional land use control MS4 must first prepare a SWPPP in accordance with all applicable requirements of this permit and then submit a completed Notice of Intent (NOI) to the Department to be authorized to discharge under this permit.
2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first prepare a SWPPP in accordance with all applicable requirements of this permit and then have the SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the “MS4 SWPPP Acceptance” form signed in accordance with Part VII.H., and then submit that form along with a completed NOI to the Department.
3. The requirement for an *owner or operator* to have its SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.F. (Change of *Owner or Operator*) or where the *owner or operator* of the *construction activity* is the *regulated, traditional land use control MS4* . This exemption does not apply to *construction activities* subject to the New York City Administrative Code.

B. Notice of Intent (NOI) Submittal

1. Prior to December 21, 2020, an owner or operator shall use either the electronic (eNOI) or paper version of the NOI that the Department prepared. Both versions of the NOI are located on the Department's website (<http://www.dec.ny.gov/>). The paper version of the NOI shall be signed in accordance with Part VII.H. of this permit and submitted to the following address:

**NOTICE OF INTENT
NYS DEC, Bureau of Water Permits
625 Broadway, 4th Floor
Albany, New York 12233-3505**

2. Beginning December 21, 2020 and in accordance with EPA's 2015 NPDES Electronic Reporting Rule (40 CFR Part 127), the *owner or operator* must submit the NOI electronically using the *Department's* online NOI.
3. The *owner or operator* shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department.
4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

C. Permit Authorization

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.
2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:
 - a. project review pursuant to the State Environmental Quality Review Act ("SEQRA") have been satisfied, when SEQRA is applicable. See the Department's website (<http://www.dec.ny.gov/>) for more information,
 - b. where required, all necessary Department permits subject to the *Uniform Procedures Act ("UPA")* (see 6 NYCRR Part 621), or the equivalent from another New York State agency, have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators of construction activities* that are required to obtain *UPA* permits

must submit a preliminary SWPPP to the appropriate DEC Permit Administrator at the Regional Office listed in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,

- c. the final SWPPP has been prepared, and
 - d. a complete NOI has been submitted to the Department in accordance with the requirements of this permit.
3. An *owner or operator* that has satisfied the requirements of Part II.C.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:
- a. For *construction activities* that are not subject to the requirements of a *regulated, traditional land use control MS4*:
 - (i) Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.; or
 - (ii) Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for *construction activities* with a SWPPP that has not been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C., the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, or;
 - (iii) Ten (10) business days from the date the Department receives a complete paper version of the NOI for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.

- b. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*:
 - (i) Five (5) business days from the date the Department receives both a complete electronic version of the NOI (eNOI) and signed “MS4 SWPPP Acceptance” form, or
 - (ii) Ten (10) business days from the date the Department receives both a complete paper version of the NOI and signed “MS4 SWPPP Acceptance” form.
4. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department. The *owner or operator* shall not *commence construction activity* on the future or additional areas until their authorization to *discharge* under this permit goes into effect in accordance with Part II.C. of this permit.

D. General Requirements For Owners or Operators With Permit Coverage

1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination (“NOT”) has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4. of this permit.
2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-20-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form, inspection reports, responsible contractor’s or subcontractor’s certification statement (see Part III.A.6.), and all documentation necessary to demonstrate eligibility with this permit at the *construction site* until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department. The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.
3. The *owner or operator of a construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land*

- use control MS4, the regulated, traditional land use control MS4 (provided the regulated, traditional land use control MS4 is not the owner or operator of the construction activity). At a minimum, the owner or operator must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:*
- a. The *owner or operator* shall have a *qualified inspector* conduct **at least two** (2) site inspections in accordance with Part IV.C. of this permit every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
 - b. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.
 - c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.
 - d. The *owner or operator* shall install any additional site-specific practices needed to protect water quality.
 - e. The *owner or operator* shall include the requirements above in their SWPPP.
4. In accordance with statute, regulations, and the terms and conditions of this permit, the Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements or consistent with Part VII.K..
 5. Upon a finding of significant non-compliance with the practices described in the SWPPP or violation of this permit, the Department may order an immediate stop to all activity at the site until the non-compliance is remedied. The stop work order shall be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.
 6. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the

regulated, traditional land use control MS4 in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *regulated, traditional land use control MS4*, the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *regulated, traditional land use control MS4* prior to commencing construction of the post-construction stormwater management practice.

E. Permit Coverage for Discharges Authorized Under GP-0-15-002

1. Upon renewal of SPDES General Permit for Stormwater Discharges from *Construction Activity* (Permit No. GP-0-15-002), an *owner or operator* of a *construction activity* with coverage under GP-0-15-002, as of the effective date of GP- 0-20-001, shall be authorized to *discharge* in accordance with GP- 0-20-001, unless otherwise notified by the Department.

An *owner or operator* may continue to implement the technical/design components of the post-construction stormwater management controls provided that such design was done in conformance with the technical standards in place at the time of initial project authorization. However, they must comply with the other, non-design provisions of GP-0-20-001.

F. Change of Owner or Operator

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. For *construction activities* subject to the requirements of a *regulated, traditional land use control MS4*, the original *owner or operator* must also notify the MS4, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership.
2. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.B.1. of this permit. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.
3. Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or*

operator was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. General SWPPP Requirements

1. A SWPPP shall be prepared and implemented by the *owner or operator* of each *construction activity* covered by this permit. The SWPPP must document the selection, design, installation, implementation and maintenance of the control measures and practices that will be used to meet the effluent limitations in Part I.B. of this permit and where applicable, the post-construction stormwater management practice requirements in Part I.C. of this permit. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*. A copy of the completed, final NOI shall be included in the SWPPP.
2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the *pollutants* in stormwater *discharges* and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.
3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.
4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP, including construction drawings:
 - a. whenever the current provisions prove to be ineffective in minimizing *pollutants* in stormwater *discharges* from the site;

- b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*;
 - c. to address issues or deficiencies identified during an inspection by the *qualified inspector*, the Department or other regulatory authority; and
 - d. to document the final construction conditions.
5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4. of this permit.
6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor*. The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

"I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with

the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharges* from *construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.

B. Required SWPPP Contents

1. Erosion and sediment control component - All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Where erosion and sediment control practices are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must demonstrate *equivalence* to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following:
 - a. Background information about the scope of the project, including the location, type and size of project

- b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours ; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater *discharge(s)*;
- c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);
- d. A construction phasing plan and sequence of operations describing the intended order of *construction activities*, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;
- e. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;
- f. A temporary and permanent soil stabilization plan that meets the requirements of this general permit and the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of *final stabilization*;
- g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;
- h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;
- i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6. of this permit, to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection

schedule shall be in accordance with the requirements in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016;

- j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the stormwater *discharges*;
 - k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the *construction site*; and
 - l. Identification of any elements of the design that are not in conformance with the design criteria in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.
2. Post-construction stormwater management practice component – The *owner or operator* of any construction project identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the applicable *sizing criteria* in Part I.C.2.a., c. or d. of this permit and the *performance criteria* in the technical standard, New York State Stormwater Management Design Manual dated January 2015

Where post-construction stormwater management practices are not designed in conformance with the *performance criteria* in the technical standard, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

The post-construction stormwater management practice component of the SWPPP shall include the following:

- a. Identification of all post-construction stormwater management practices to be constructed as part of the project. Include the dimensions, material specifications and installation details for each post-construction stormwater management practice;

- b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;
- c. A Stormwater Modeling and Analysis Report that includes:
 - (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points;
 - (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and post-construction stormwater management practices;
 - (iii) Results of stormwater modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre and post-development runoff rates and volumes for the different storm events;
 - (iv) Summary table, with supporting calculations, which demonstrates that each post-construction stormwater management practice has been designed in conformance with the *sizing criteria* included in the Design Manual;
 - (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part I.C. of this permit; and
 - (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the Design Manual. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the Design Manual;
- d. Soil testing results and locations (test pits, borings);
- e. Infiltration test results, when required; and
- f. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.

3. Enhanced Phosphorus Removal Standards - All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the applicable *sizing criteria* in Part I.C.2. b., c. or d. of this permit and the *performance criteria*, Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a - 2.f. above.

C. Required SWPPP Components by Project Type

Unless otherwise notified by the Department, *owners or operators of construction activities* identified in Table 1 of Appendix B are required to prepare a SWPPP that only includes erosion and sediment control practices designed in conformance with Part III.B.1 of this permit. *Owners or operators of the construction activities* identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3 of this permit.

Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures) and all post-construction stormwater management practices identified in the SWPPP are inspected and maintained in accordance with Part IV.B. and C. of this permit.
2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York or protect the public health and safety and/or the environment.

B. Contractor Maintenance Inspection Requirements

1. The *owner or operator* of each *construction activity* identified in Tables 1 and 2 of Appendix B shall have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor shall

begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections. The *trained contractor* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of this permit as soon as soil disturbance activities resume.
3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

C. Qualified Inspector Inspection Requirements

The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

[Note: The *trained contractor* identified in Part III.A.6. and IV.B. of this permit **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A. In order to perform these inspections, the *trained contractor* would have to be a:

- licensed Professional Engineer,
 - Certified Professional in Erosion and Sediment Control (CPESC),
 - New York State Erosion and Sediment Control Certificate Program holder
 - Registered Landscape Architect, or
 - someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].
1. A *qualified inspector* shall conduct site inspections for all *construction activities* identified in Tables 1 and 2 of Appendix B, with the exception of:
 - a. the construction of a single family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located

in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

- b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;
 - c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and
 - d. *construction activities* located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.
2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:
- a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.
 - b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.D.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
 - c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to reducing the frequency of inspections.

- d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization*, and all temporary, structural erosion and sediment control measures have been removed; and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the “*Final Stabilization*” and “*Post-Construction Stormwater Management Practice*” certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.B.1 of this permit.
 - e. For construction sites that directly *discharge* to one of the 303(d) segments listed in Appendix E or is located in one of the watersheds listed in Appendix C, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization*, all points of *discharge* to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site*, and all points of *discharge* from the *construction site*.
 4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

- a. Date and time of inspection;
- b. Name and title of person(s) performing inspection;
- c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;
- d. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This shall include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;
- e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;
- f. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance;
- g. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;
- h. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection;
- i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;
- j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s);
- k. Identification and status of all corrective actions that were required by previous inspection; and

- I. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.
5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of this permit of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.
6. All inspection reports shall be signed by the *qualified inspector*. Pursuant to Part II.D.2. of this permit, the inspection reports shall be maintained on site with the SWPPP.

Part V. TERMINATION OF PERMIT COVERAGE

A. Termination of Permit Coverage

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.B.1 of this permit. The NOT form shall be one which is associated with this permit, signed in accordance with Part VII.H of this permit.
2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:
 - a. Total project completion - All *construction activity* identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;

- b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;
 - c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.F. of this permit.
 - d. The *owner or operator* obtains coverage under an alternative SPDES general permit or an individual SPDES permit.
3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the “*Final Stabilization*” and “*Post-Construction Stormwater Management Practice certification statements*” on the NOT, certify that all the requirements in Part V.A.2.a. or b. of this permit have been achieved.
4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *regulated, traditional land use control MS4* sign the “*MS4 Acceptance*” statement on the NOT in accordance with the requirements in Part VII.H. of this permit. The *regulated, traditional land use control MS4* official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The *regulated, traditional land use control MS4* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector’s* final site inspection certification(s) required in Part V.A.3. of this permit.
5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:
 - a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,

- b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),
- c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record,
- d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility; the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

Part VI. REPORTING AND RETENTION RECORDS

A. Record Retention

The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the Department receives a complete NOT submitted in accordance with Part V. of this general permit.

B. Addresses

With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.B.1 of this permit), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate DOW Water (SPDES) Program contact at the Regional Office listed in Appendix F.

Part VII. STANDARD PERMIT CONDITIONS

A. Duty to Comply

The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water

Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE). *Construction activity* shall not resume until written permission to do so has been received from the RWE.

B. Continuation of the Expired General Permit

This permit expires five (5) years from the effective date. If a new general permit is not issued prior to the expiration of this general permit, an *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the terms and conditions of this general permit, if it is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, until a new general permit is issued.

C. Enforcement

Failure of the *owner or operator*, its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to \$37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for an *owner or operator* in an enforcement action that it would have been necessary to halt or reduce the *construction activity* in order to maintain compliance with the conditions of this permit.

E. Duty to Mitigate

The *owner or operator* and its contractors and subcontractors shall take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

F. Duty to Provide Information

The *owner or operator* shall furnish to the Department, within a reasonable specified time period of a written request, all documentation necessary to demonstrate eligibility and any information to determine compliance with this permit or to determine whether cause exists for modifying or revoking this permit, or suspending or denying coverage under this permit, in accordance with the terms and conditions of this permit. The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

G. Other Information

When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any of the documents required by this permit, or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s) changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or *impervious area*), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department using the contact information in Part II.A. of this permit. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

H. Signatory Requirements

1. All NOIs and NOTs shall be signed as follows:
 - a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

- (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
 - (ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
 - b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or
 - c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
 - (i) the chief executive officer of the agency, or
 - (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- a. The authorization is made in writing by a person described in Part VII.H.1. of this permit;
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field,

superintendent, position of *equivalent* responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and,

- c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.
3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.
4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4*, or by a duly authorized representative of that person.

It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.

I. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.

J. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

K. Requirement to Obtain Coverage Under an Alternative Permit

1. The Department may require any owner or operator authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall

include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the owner or operator to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from owner or operator receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Permit Administrator at the Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Department, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.

2. When an individual SPDES permit is issued to a discharger authorized to *discharge* under a general SPDES permit for the same *discharge(s)*, the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

L. Proper Operation and Maintenance

The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.

M. Inspection and Entry

The *owner or operator* shall allow an authorized representative of the Department, EPA, applicable county health department, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the owner's or operator's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and

3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment), practices or operations regulated or required by this permit.
4. Sample or monitor at reasonable times, for purposes of assuring permit compliance or as otherwise authorized by the Act or ECL, any substances or parameters at any location.

N. Permit Actions

This permit may, at any time, be modified, suspended, revoked, or renewed by the Department in accordance with 6 NYCRR Part 621. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.

O. Definitions

Definitions of key terms are included in Appendix A of this permit.

P. Re-Opener Clause

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.
2. Any Department initiated permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

Q. Penalties for Falsification of Forms and Reports

In accordance with 6NYCRR Part 750-2.4 and 750-2.5, any person who knowingly makes any false material statement, representation, or certification in any application, record, report or other document filed or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished in accordance with ECL §71-1933 and or Articles 175 and 210 of the New York State Penal Law.

R. Other Permits

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

APPENDIX A – Acronyms and Definitions

Acronyms

APO – Agency Preservation Officer

BMP – Best Management Practice

CPESC – Certified Professional in Erosion and Sediment Control

Cpv – Channel Protection Volume

CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)

DOW – Division of Water

EAF – Environmental Assessment Form

ECL - Environmental Conservation Law

EPA – U. S. Environmental Protection Agency

HSG – Hydrologic Soil Group

MS4 – Municipal Separate Storm Sewer System

NOI – Notice of Intent

NOT – Notice of Termination

NPDES – National Pollutant Discharge Elimination System

OPRHP – Office of Parks, Recreation and Historic Places

Qf – Extreme Flood

Qp – Overbank Flood

RRv – Runoff Reduction Volume

RWE – Regional Water Engineer

SEQR – State Environmental Quality Review

SEQRA - State Environmental Quality Review Act

SHPA – State Historic Preservation Act

SPDES – State Pollutant Discharge Elimination System

SWPPP – Stormwater Pollution Prevention Plan

TMDL – Total Maximum Daily Load

UPA – Uniform Procedures Act

USDA – United States Department of Agriculture

WQv – Water Quality Volume

Definitions

All definitions in this section are solely for the purposes of this permit.

Agricultural Building – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

Agricultural Property – means the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State” prepared by the Department in cooperation with agencies of New York Nonpoint Source Coordinating Committee (dated June 2007).

Alter Hydrology from Pre to Post-Development Conditions - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer - means a sewer that is designed to collect and convey both “sewage” and “stormwater”.

Commence (Commencement of) Construction Activities - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for “*Construction Activity(ies)*” also.

Construction Activity(ies) - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

Construction Site – means the land area where *construction activity(ies)* will occur. See definition for “*Commence (Commencement of) Construction Activities*” and “*Larger Common Plan of Development or Sale*” also.

Dewatering – means the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

Direct Discharge (to a specific surface waterbody) - means that runoff flows from a *construction site* by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system

and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

Discharge(s) - means any addition of any pollutant to waters of the State through an outlet or *point source*.

Embankment –means an earthen or rock slope that supports a road/highway.

Endangered or Threatened Species – see 6 NYCRR Part 182 of the Department’s rules and regulations for definition of terms and requirements.

Environmental Conservation Law (ECL) - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

Equivalent (Equivalence) – means that the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

Final Stabilization - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

General SPDES permit - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 and Section 70-0117 of the ECL authorizing a category of discharges.

Groundwater(s) - means waters in the saturated zone. The saturated zone is a subsurface zone in which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

Historic Property – means any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

Impervious Area (Cover) - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Infeasible – means not technologically possible, or not economically practicable and achievable in light of best industry practices.

Larger Common Plan of Development or Sale - means a contiguous area where multiple separate and distinct *construction activities* are occurring, or will occur, under one plan. The term “plan” in “larger common plan of development or sale” is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that *construction activities* may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same “common plan” is not concurrently being disturbed.

Minimize – means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State;
- (ii) Designed or used for collecting or conveying stormwater;
- (iii) Which is not a *combined sewer*, and
- (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System (NPDES) - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

Natural Buffer –means an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

New Development – means any land disturbance that does not meet the definition of Redevelopment Activity included in this appendix.

New York State Erosion and Sediment Control Certificate Program – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

NOI Acknowledgment Letter - means the letter that the Department sends to an owner or operator to acknowledge the Department's receipt and acceptance of a complete Notice of Intent. This letter documents the owner's or operator's authorization to discharge in accordance with the general permit for stormwater discharges from *construction activity*.

Nonpoint Source - means any source of water pollution or pollutants which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

Overbank –means flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

Owner or Operator - means the person, persons or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions.

Performance Criteria – means the design criteria listed under the “Required Elements” sections in Chapters 5, 6 and 10 of the technical standard, New York State Stormwater Management Design Manual, dated January 2015. It does not include the Sizing Criteria (i.e. WQv, RRv, Cpv, Qp and Qf) in Part I.C.2. of the permit.

Point Source - means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be discharged.

Pollutant - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq .

Qualified Inspector - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Redevelopment Activity(ies) – means the disturbance and reconstruction of existing impervious area, including impervious areas that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

Regulated, Traditional Land Use Control MS4 - means a city, town or village with land use control authority that is authorized to discharge under New York State DEC's

SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

Routine Maintenance Activity - means *construction activity* that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch),
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*,
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

Site limitations – means site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical site limitations include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of site limitations shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

Sizing Criteria – means the criteria included in Part I.C.2 of the permit that are used to size post-construction stormwater management control practices. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank Flood* (Qp), and *Extreme Flood* (Qf).

State Pollutant Discharge Elimination System (SPDES) - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

Steep Slope – means land area designated on the current United States Department of Agriculture (“USDA”) Soil Survey as Soil Slope Phase “D”, (provided the map unit name is inclusive of slopes greater than 25%) , or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

Streambank – as used in this permit, means the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

Stormwater Pollution Prevention Plan (SWPPP) – means a project specific report, including construction drawings, that among other things: describes the construction activity(ies), identifies the potential sources of pollution at the *construction site*; describes and shows the stormwater controls that will be used to control the pollutants (i.e. erosion and sediment controls; for many projects, includes post-construction stormwater management controls); and identifies procedures the *owner or operator* will implement to comply with the terms and conditions of the permit. See Part III of the permit for a complete description of the information that must be included in the SWPPP.

Surface Waters of the State - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporarily Ceased – means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Temporary Stabilization - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Loads (TMDLs) - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and *nonpoint sources*. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet *water quality standards*, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for *point source* discharges, load allocations (LAs) for *nonpoint sources*, and a margin of safety (MOS).

Trained Contractor - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed

training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The *trained contractor* is responsible for the day to day implementation of the SWPPP.

Uniform Procedures Act (UPA) Permit - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

Water Quality Standard - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

APPENDIX B – Required SWPPP Components by Project Type

Table 1
Construction Activities that Require the Preparation of a SWPPP That Only Includes Erosion and Sediment Controls

<p>The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:</p> <ul style="list-style-type: none">• Single family home <u>not</u> located in one of the watersheds listed in Appendix C or <u>not directly discharging</u> to one of the 303(d) segments listed in Appendix E• Single family residential subdivisions with 25% or less impervious cover at total site build-out and <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E• Construction of a barn or other <i>agricultural building</i>, silo, stock yard or pen.
<p>The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:</p> <p>All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.</p>
<p>The following construction activities that involve soil disturbances of one (1) or more acres of land:</p> <ul style="list-style-type: none">• Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains• Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects• Pond construction• Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover• Cross-country ski trails and walking/hiking trails• Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are not part of residential, commercial or institutional development;• Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path or walking path.• Slope stabilization projects• Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics

Table 1 (Continued) CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Spoil areas that will be covered with vegetation
- Vegetated open space projects (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) excluding projects that *alter hydrology from pre to post development* conditions,
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre to post development* conditions
- Demolition project where vegetation will be established, and no redevelopment is planned
- Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*
- Structural practices as identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State”, excluding projects that involve soil disturbances of greater than five acres and construction activities that include the construction or reconstruction of impervious area
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary impervious areas that will be restored to pre-construction conditions once the construction activity is complete

Table 2
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES
POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Single family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family home that disturbs five (5) or more acres of land
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) and structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW's, water treatment plants, and water storage tanks
- Office complexes
- Playgrounds that include the construction or reconstruction of impervious area
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surface
- Road construction or reconstruction, including roads constructed as part of the construction activities listed in Table 1

Table 2 (Continued)

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Parking lot construction or reconstruction, including parking lots constructed as part of the construction activities listed in Table 1
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover*, and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project, sewer or water main project or other linear utility project
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a residential, commercial or institutional development
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a highway construction or reconstruction project
- All other construction activities that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre to post development* conditions, and are not listed in Table 1

APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

Watersheds where *owners or operators* of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual (“Design Manual”).

- Entire New York City Watershed located east of the Hudson River - Figure 1
- Onondaga Lake Watershed - Figure 2
- Greenwood Lake Watershed -Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

Figure 1 - New York City Watershed East of the Hudson

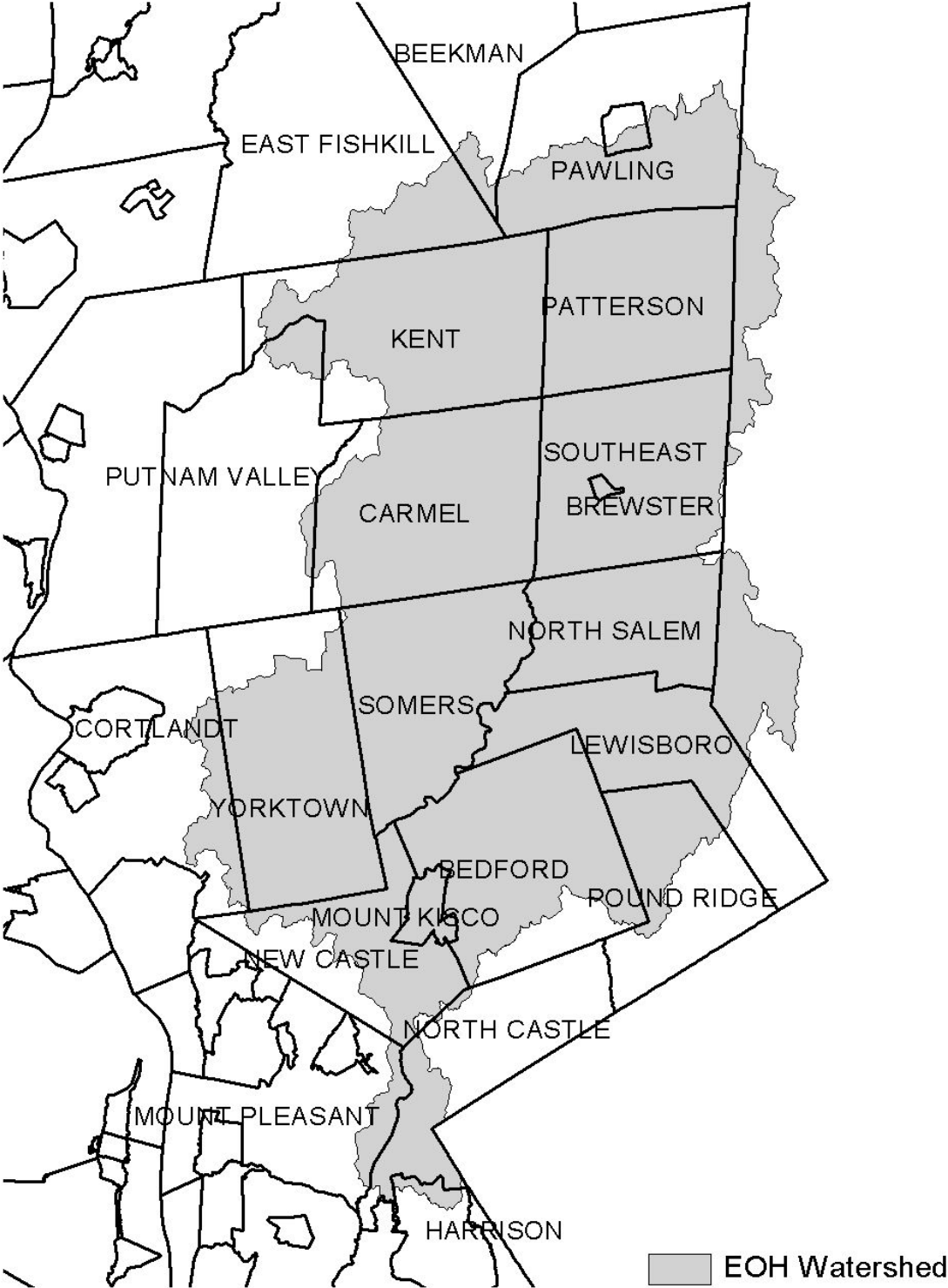


Figure 2 - Onondaga Lake Watershed



Figure 3 - Greenwood Lake Watershed



Figure 4 - Oscawana Lake Watershed

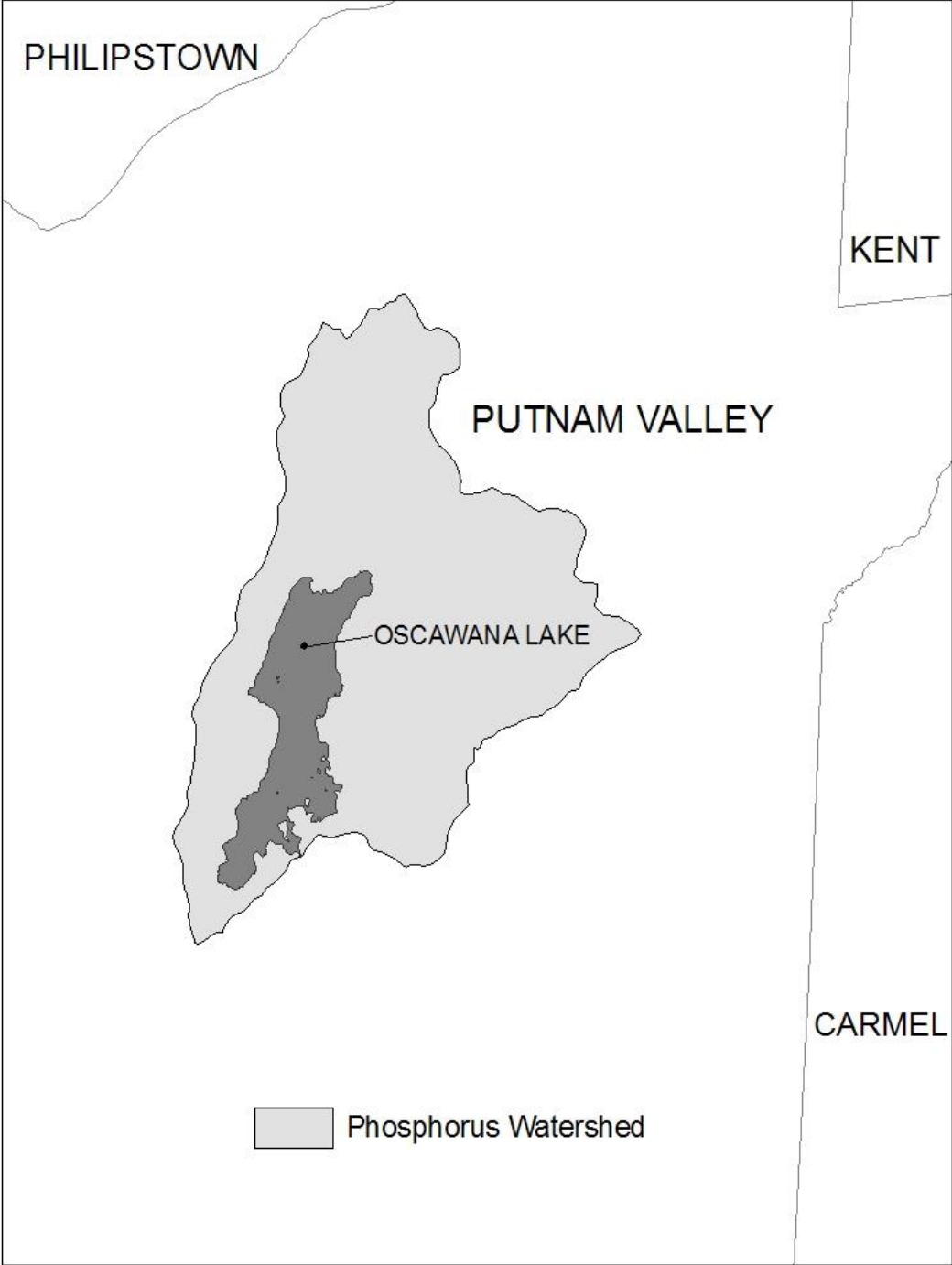
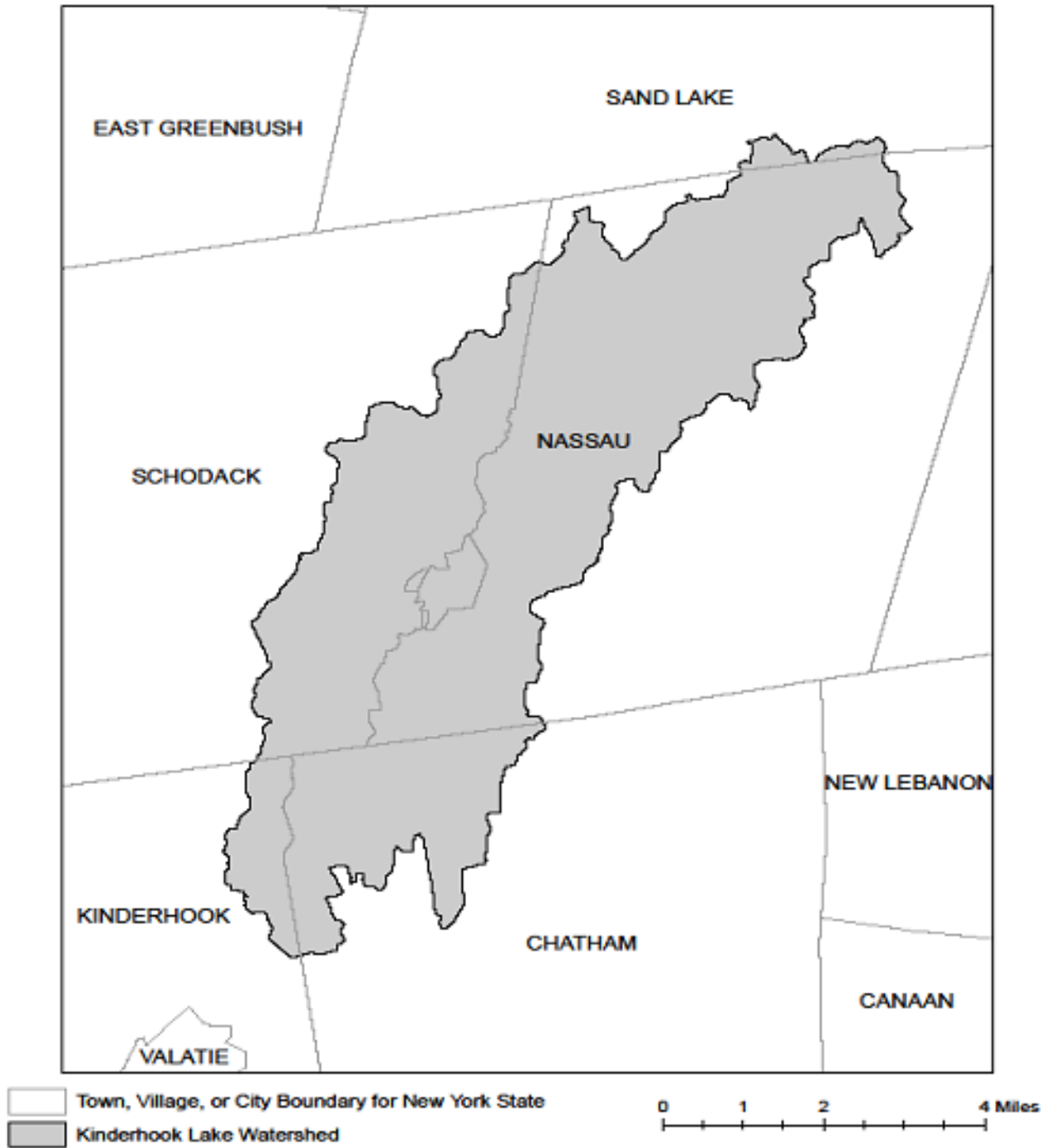


Figure 5 - Kinderhook Lake Watershed



APPENDIX D – Watersheds with Lower Disturbance Threshold

Watersheds where *owners or operators* of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.

Entire New York City Watershed that is located east of the Hudson River - See Figure 1 in Appendix C

APPENDIX E – 303(d) Segments Impaired by Construction Related Pollutant(s)

List of 303(d) segments impaired by pollutants related to *construction activity* (e.g. silt, sediment or nutrients). The list was developed using "The Final New York State 2016 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy" dated November 2016. *Owners or operators* of single family home and single family residential subdivisions with 25% or less total impervious cover at total site build-out that involve soil disturbances of one or more acres of land, but less than 5 acres, and *directly discharge* to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015.

COUNTY	WATERBODY	POLLUTANT
Albany	Ann Lee (Shakers) Pond, Stump Pond	Nutrients
Albany	Basic Creek Reservoir	Nutrients
Allegany	Amity Lake, Saunders Pond	Nutrients
Bronx	Long Island Sound, Bronx	Nutrients
Bronx	Van Cortlandt Lake	Nutrients
Broome	Fly Pond, Deer Lake, Sky Lake	Nutrients
Broome	Minor Tribs to Lower Susquehanna (north)	Nutrients
Broome	Whitney Point Lake/Reservoir	Nutrients
Cattaraugus	Allegheny River/Reservoir	Nutrients
Cattaraugus	Beaver (Alma) Lake	Nutrients
Cattaraugus	Case Lake	Nutrients
Cattaraugus	Linlyco/Club Pond	Nutrients
Cayuga	Duck Lake	Nutrients
Cayuga	Little Sodus Bay	Nutrients
Chautauqua	Bear Lake	Nutrients
Chautauqua	Chadakoin River and tribs	Nutrients
Chautauqua	Chautauqua Lake, North	Nutrients
Chautauqua	Chautauqua Lake, South	Nutrients
Chautauqua	Findley Lake	Nutrients
Chautauqua	Hulburt/Clymer Pond	Nutrients
Clinton	Great Chazy River, Lower, Main Stem	Silt/Sediment
Clinton	Lake Champlain, Main Lake, Middle	Nutrients
Clinton	Lake Champlain, Main Lake, North	Nutrients
Columbia	Kinderhook Lake	Nutrients
Columbia	Robinson Pond	Nutrients
Cortland	Dean Pond	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Dutchess	Fall Kill and tribs	Nutrients
Dutchess	Hillside Lake	Nutrients
Dutchess	Wappingers Lake	Nutrients
Dutchess	Wappingers Lake	Silt/Sediment
Erie	Beeman Creek and tribs	Nutrients
Erie	Ellicott Creek, Lower, and tribs	Silt/Sediment
Erie	Ellicott Creek, Lower, and tribs	Nutrients
Erie	Green Lake	Nutrients
Erie	Little Sister Creek, Lower, and tribs	Nutrients
Erie	Murder Creek, Lower, and tribs	Nutrients
Erie	Rush Creek and tribs	Nutrients
Erie	Scajaquada Creek, Lower, and tribs	Nutrients
Erie	Scajaquada Creek, Middle, and tribs	Nutrients
Erie	Scajaquada Creek, Upper, and tribs	Nutrients
Erie	South Branch Smoke Cr, Lower, and tribs	Silt/Sediment
Erie	South Branch Smoke Cr, Lower, and tribs	Nutrients
Essex	Lake Champlain, Main Lake, South	Nutrients
Essex	Lake Champlain, South Lake	Nutrients
Essex	Willsboro Bay	Nutrients
Genesee	Bigelow Creek and tribs	Nutrients
Genesee	Black Creek, Middle, and minor tribs	Nutrients
Genesee	Black Creek, Upper, and minor tribs	Nutrients
Genesee	Bowen Brook and tribs	Nutrients
Genesee	LeRoy Reservoir	Nutrients
Genesee	Oak Orchard Cr, Upper, and tribs	Nutrients
Genesee	Tonawanda Creek, Middle, Main Stem	Nutrients
Greene	Schoharie Reservoir	Silt/Sediment
Greene	Sleepy Hollow Lake	Silt/Sediment
Herkimer	Steele Creek tribs	Silt/Sediment
Herkimer	Steele Creek tribs	Nutrients
Jefferson	Moon Lake	Nutrients
Kings	Hendrix Creek	Nutrients
Kings	Prospect Park Lake	Nutrients
Lewis	Mill Creek/South Branch, and tribs	Nutrients
Livingston	Christie Creek and tribs	Nutrients
Livingston	Conesus Lake	Nutrients
Livingston	Mill Creek and minor tribs	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs	Nutrients
Monroe	Buck Pond	Nutrients
Monroe	Cranberry Pond	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Monroe	Lake Ontario Shoreline, Western	Nutrients
Monroe	Long Pond	Nutrients
Monroe	Mill Creek and tribs	Nutrients
Monroe	Mill Creek/Blue Pond Outlet and tribs	Nutrients
Monroe	Minor Tribs to Irondequoit Bay	Nutrients
Monroe	Rochester Embayment - East	Nutrients
Monroe	Rochester Embayment - West	Nutrients
Monroe	Shipbuilders Creek and tribs	Nutrients
Monroe	Thomas Creek/White Brook and tribs	Nutrients
Nassau	Beaver Lake	Nutrients
Nassau	Camaans Pond	Nutrients
Nassau	East Meadow Brook, Upper, and tribs	Silt/Sediment
Nassau	East Rockaway Channel	Nutrients
Nassau	Grant Park Pond	Nutrients
Nassau	Hempstead Bay	Nutrients
Nassau	Hempstead Lake	Nutrients
Nassau	Hewlett Bay	Nutrients
Nassau	Hog Island Channel	Nutrients
Nassau	Long Island Sound, Nassau County Waters	Nutrients
Nassau	Massapequa Creek and tribs	Nutrients
Nassau	Milburn/Parsonage Creeks, Upp, and tribs	Nutrients
Nassau	Reynolds Channel, west	Nutrients
Nassau	Tidal Tribs to Hempstead Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Silt/Sediment
Nassau	Tribs to Smith/Halls Ponds	Nutrients
Nassau	Woodmere Channel	Nutrients
New York	Harlem Meer	Nutrients
New York	The Lake in Central Park	Nutrients
Niagara	Bergholtz Creek and tribs	Nutrients
Niagara	Hyde Park Lake	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Oneida	Ballou, Nail Creeks and tribs	Nutrients
Onondaga	Harbor Brook, Lower, and tribs	Nutrients
Onondaga	Ley Creek and tribs	Nutrients
Onondaga	Minor Tribs to Onondaga Lake	Nutrients
Onondaga	Ninemile Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Middle, and tribs	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Onondaga	Onondaga Lake, northern end	Nutrients
Onondaga	Onondaga Lake, southern end	Nutrients
Ontario	Great Brook and minor tribs	Silt/Sediment
Ontario	Great Brook and minor tribs	Nutrients
Ontario	Hemlock Lake Outlet and minor tribs	Nutrients
Ontario	Honeoye Lake	Nutrients
Orange	Greenwood Lake	Nutrients
Orange	Monhagen Brook and tribs	Nutrients
Orange	Orange Lake	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Oswego	Lake Neatahwanta	Nutrients
Oswego	Pleasant Lake	Nutrients
Putnam	Bog Brook Reservoir	Nutrients
Putnam	Boyd Corners Reservoir	Nutrients
Putnam	Croton Falls Reservoir	Nutrients
Putnam	Diverting Reservoir	Nutrients
Putnam	East Branch Reservoir	Nutrients
Putnam	Lake Carmel	Nutrients
Putnam	Middle Branch Reservoir	Nutrients
Putnam	Oscawana Lake	Nutrients
Putnam	Palmer Lake	Nutrients
Putnam	West Branch Reservoir	Nutrients
Queens	Bergen Basin	Nutrients
Queens	Flushing Creek/Bay	Nutrients
Queens	Jamaica Bay, Eastern, and tribs (Queens)	Nutrients
Queens	Kissena Lake	Nutrients
Queens	Meadow Lake	Nutrients
Queens	Willow Lake	Nutrients
Rensselaer	Nassau Lake	Nutrients
Rensselaer	Snyders Lake	Nutrients
Richmond	Grasmere Lake/Bradys Pond	Nutrients
Rockland	Congers Lake, Swartout Lake	Nutrients
Rockland	Rockland Lake	Nutrients
Saratoga	Ballston Lake	Nutrients
Saratoga	Dwaas Kill and tribs	Silt/Sediment
Saratoga	Dwaas Kill and tribs	Nutrients
Saratoga	Lake Lonely	Nutrients
Saratoga	Round Lake	Nutrients
Saratoga	Tribs to Lake Lonely	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Schenectady	Collins Lake	Nutrients
Schenectady	Duane Lake	Nutrients
Schenectady	Mariaville Lake	Nutrients
Schoharie	Engleville Pond	Nutrients
Schoharie	Summit Lake	Nutrients
Seneca	Reeder Creek and tribs	Nutrients
St.Lawrence	Black Lake Outlet/Black Lake	Nutrients
St.Lawrence	Fish Creek and minor tribs	Nutrients
Steuben	Smith Pond	Nutrients
Suffolk	Agawam Lake	Nutrients
Suffolk	Big/Little Fresh Ponds	Nutrients
Suffolk	Canaan Lake	Silt/Sediment
Suffolk	Canaan Lake	Nutrients
Suffolk	Flanders Bay, West/Lower Sawmill Creek	Nutrients
Suffolk	Fresh Pond	Nutrients
Suffolk	Great South Bay, East	Nutrients
Suffolk	Great South Bay, Middle	Nutrients
Suffolk	Great South Bay, West	Nutrients
Suffolk	Lake Ronkonkoma	Nutrients
Suffolk	Long Island Sound, Suffolk County, West	Nutrients
Suffolk	Mattituck (Marratooka) Pond	Nutrients
Suffolk	Meetinghouse/Terrys Creeks and tribs	Nutrients
Suffolk	Mill and Seven Ponds	Nutrients
Suffolk	Millers Pond	Nutrients
Suffolk	Moriches Bay, East	Nutrients
Suffolk	Moriches Bay, West	Nutrients
Suffolk	Peconic River, Lower, and tidal tribs	Nutrients
Suffolk	Quantuck Bay	Nutrients
Suffolk	Shinnecock Bay and Inlet	Nutrients
Suffolk	Tidal tribs to West Moriches Bay	Nutrients
Sullivan	Bodine, Montgomery Lakes	Nutrients
Sullivan	Davies Lake	Nutrients
Sullivan	Evens Lake	Nutrients
Sullivan	Pleasure Lake	Nutrients
Tompkins	Cayuga Lake, Southern End	Nutrients
Tompkins	Cayuga Lake, Southern End	Silt/Sediment
Tompkins	Owasco Inlet, Upper, and tribs	Nutrients
Ulster	Ashokan Reservoir	Silt/Sediment
Ulster	Esopus Creek, Upper, and minor tribs	Silt/Sediment
Warren	Hague Brook and tribs	Silt/Sediment

303(d) Segments Impaired by Construction Related Pollutant(s)

Warren	Huddle/Finkle Brooks and tribs	Silt/Sediment
Warren	Indian Brook and tribs	Silt/Sediment
Warren	Lake George	Silt/Sediment
Warren	Tribs to L.George, Village of L George	Silt/Sediment
Washington	Cossayuna Lake	Nutrients
Washington	Lake Champlain, South Bay	Nutrients
Washington	Tribs to L.George, East Shore	Silt/Sediment
Washington	Wood Cr/Champlain Canal and minor tribs	Nutrients
Wayne	Port Bay	Nutrients
Westchester	Amawalk Reservoir	Nutrients
Westchester	Blind Brook, Upper, and tribs	Silt/Sediment
Westchester	Cross River Reservoir	Nutrients
Westchester	Lake Katonah	Nutrients
Westchester	Lake Lincolndale	Nutrients
Westchester	Lake Meahagh	Nutrients
Westchester	Lake Mohegan	Nutrients
Westchester	Lake Shenorock	Nutrients
Westchester	Long Island Sound, Westchester (East)	Nutrients
Westchester	Mamaroneck River, Lower	Silt/Sediment
Westchester	Mamaroneck River, Upper, and minor tribs	Silt/Sediment
Westchester	Muscoot/Upper New Croton Reservoir	Nutrients
Westchester	New Croton Reservoir	Nutrients
Westchester	Peach Lake	Nutrients
Westchester	Reservoir No.1 (Lake Isle)	Nutrients
Westchester	Saw Mill River, Lower, and tribs	Nutrients
Westchester	Saw Mill River, Middle, and tribs	Nutrients
Westchester	Sheldrake River and tribs	Silt/Sediment
Westchester	Sheldrake River and tribs	Nutrients
Westchester	Silver Lake	Nutrients
Westchester	Teatown Lake	Nutrients
Westchester	Titicus Reservoir	Nutrients
Westchester	Truesdale Lake	Nutrients
Westchester	Wallace Pond	Nutrients
Wyoming	Java Lake	Nutrients
Wyoming	Silver Lake	Nutrients

APPENDIX F – List of NYS DEC Regional Offices

<u>Region</u>	<u>COVERING THE FOLLOWING COUNTIES:</u>	<u>DIVISION OF ENVIRONMENTAL PERMITS (DEP) PERMIT ADMINISTRATORS</u>	<u>DIVISION OF WATER (DOW) WATER (SPDES) PROGRAM</u>
1	NASSAU AND SUFFOLK	50 CIRCLE ROAD STONY BROOK, NY 11790 TEL. (631) 444-0365	50 CIRCLE ROAD STONY BROOK, NY 11790-3409 TEL. (631) 444-0405
2	BRONX, KINGS, NEW YORK, QUEENS AND RICHMOND	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4997	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4933
3	DUTCHESS, ORANGE, PUTNAM, ROCKLAND, SULLIVAN, ULSTER AND WESTCHESTER	21 SOUTH PUTT CORNERS ROAD NEW PALTZ, NY 12561-1696 TEL. (845) 256-3059	100 HILLSIDE AVENUE, SUITE 1W WHITE PLAINS, NY 10603 TEL. (914) 428 - 2505
4	ALBANY, COLUMBIA, DELAWARE, GREENE, MONTGOMERY, OTSEGO, RENSSELAER, SCHENECTADY AND SCHOHARIE	1150 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2069	1130 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2045
5	CLINTON, ESSEX, FRANKLIN, FULTON, HAMILTON, SARATOGA, WARREN AND WASHINGTON	1115 STATE ROUTE 86, Po Box 296 RAY BROOK, NY 12977-0296 TEL. (518) 897-1234	232 GOLF COURSE ROAD WARRENSBURG, NY 12885-1172 TEL. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7070

APPENDIX E

BMP SPECIFICATIONS

STANDARD AND SPECIFICATIONS FOR STABILIZED CONSTRUCTION ACCESS



inert to commonly encountered chemicals, hydro-carbons, mildew, rot resistant, and conform to the fabric properties as shown:

Fabric Properties ³	Light Duty ¹ Roads Grade Sub- grade	Heavy Duty ² Haul Roads Rough Graded	Test Meth- od
Grab Tensile Strength (lbs)	200	220	ASTM D1682
Elongation at Failure (%)	50	60	ASTM D1682
Mullen Burst Strength (lbs)	190	430	ASTM D3786
Puncture Strength (lbs)	40	125	ASTM D751 Modified
Equivalent	40-80	40-80	US Std Sieve
Opening Size			CW-02215
Aggregate Depth	6	10	-

Definition & Scope

A stabilized pad of aggregate underlain with geotextile located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk, or parking area. The purpose of stabilized construction access is to reduce or eliminate the tracking of sediment onto public rights-of-way or streets.

Conditions Where Practice Applies

A stabilized construction access shall be used at all points of construction ingress and egress.

Design Criteria

See Figure 2.1 on page 2.31 for details.

Aggregate Size: Use a matrix of 1-4 inch stone, or reclaimed or recycled concrete equivalent.

Thickness: Not less than six (6) inches.

Width: 12-foot minimum but not less than the full width of points where ingress or egress occurs. 24-foot minimum if there is only one access to the site.

Length: As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum would apply).

Geotextile: To be placed over the entire area to be covered with aggregate. Filter cloth will not be required on a single-family residence lot. Piping of surface water under entrance shall be provided as required. If piping is impossible, a mountable berm with 5:1 slopes will be permitted.

Criteria for Geotextile: The geotextile shall be woven or nonwoven fabric consisting only of continuous chain polymeric filaments or yarns of polyester. The fabric shall be

¹Light Duty Road: Area sites that have been graded to subgrade and where most travel would be single axle vehicles and an occasional multi-axle truck. Acceptable materials are Trevira Spunbond 1115, Mirafi 100X, Typar 3401, or equivalent.

²Heavy Duty Road: Area sites with only rough grading, and where most travel would be multi-axle vehicles. Acceptable materials are Trevira Spunbond 1135, Mirafi 600X, or equivalent.

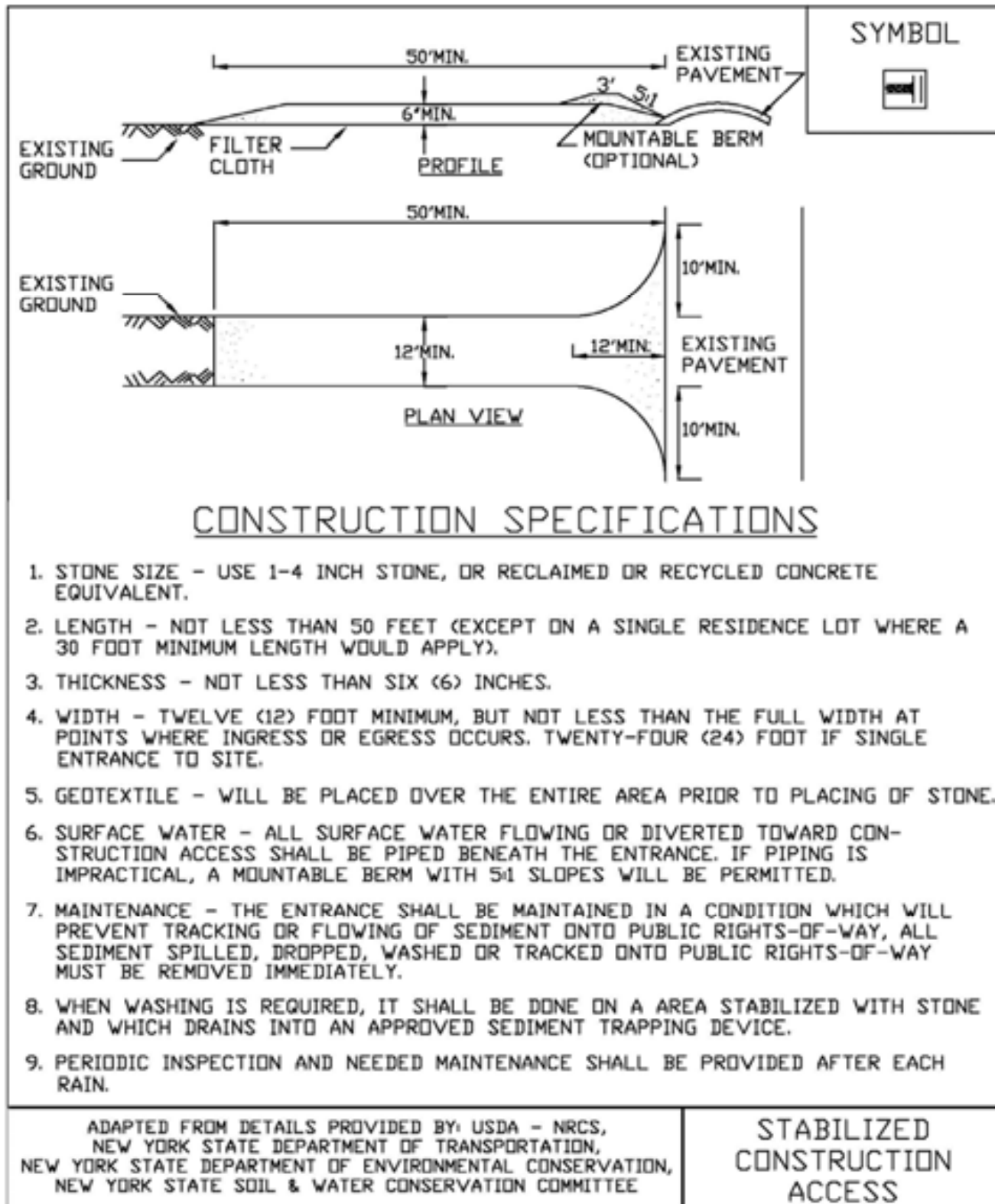
³Fabrics not meeting these specifications may be used only when design procedure and supporting documentation are supplied to determine aggregate depth and fabric strength.

Maintenance

The access shall be maintained in a condition which will prevent tracking of sediment onto public rights-of-way or streets. This may require periodic top dressing with additional aggregate. All sediment spilled, dropped, or washed onto public rights-of-way must be removed immediately.

When necessary, wheels must be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment-trapping device. All sediment shall be prevented from entering storm drains, ditches, or watercourses.

**Figure 2.1
Stabilized Construction Access**



STANDARD AND SPECIFICATIONS FOR DUST CONTROL



dust control (see Section 3).

Mulch (including gravel mulch) – Mulch offers a fast effective means of controlling dust. This can also include rolled erosion control blankets.

Spray adhesives – These are products generally composed of polymers in a liquid or solid form that are mixed with water to form an emulsion that is sprayed on the soil surface with typical hydroseeding equipment. The mixing ratios and application rates will be in accordance with the manufacturer's recommendations for the specific soils on the site. In no case should the application of these adhesives be made on wet soils or if there is a probability of precipitation within 48 hours of its proposed use. Material Safety Data Sheets will be provided to all applicators and others working with the material.

Definition & Scope

The control of dust resulting from land-disturbing activities, to prevent surface and air movement of dust from disturbed soil surfaces that may cause off-site damage, health hazards, and traffic safety problems.

Conditions Where Practice Applies

On construction roads, access points, and other disturbed areas subject to surface dust movement and dust blowing where off-site damage may occur if dust is not controlled.

Design Criteria

Construction operations should be scheduled to minimize the amount of area disturbed at one time. Buffer areas of vegetation should be left where practical. Temporary or permanent stabilization measures shall be installed. No specific design criteria is given; see construction specifications below for common methods of dust control.

Water quality must be considered when materials are selected for dust control. Where there is a potential for the material to wash off to a stream, ingredient information must be provided to the NYSDEC.

No polymer application shall take place without written approval from the NYSDEC.

Construction Specifications

A. **Non-driving Areas** – These areas use products and materials applied or placed on soil surfaces to prevent airborne migration of soil particles.

Vegetative Cover – For disturbed areas not subject to traffic, vegetation provides the most practical method of

B. **Driving Areas** – These areas utilize water, polymer emulsions, and barriers to prevent dust movement from the traffic surface into the air.

Sprinkling – The site may be sprayed with water until the surface is wet. This is especially effective on haul roads and access route to provide short term limited dust control.

Polymer Additives – These polymers are mixed with water and applied to the driving surface by a water truck with a gravity feed drip bar, spray bar or automated distributor truck. The mixing ratios and application rates will be in accordance with the manufacturer's recommendations. Incorporation of the emulsion into the soil will be done to the appropriate depth based on expected traffic. Compaction after incorporation will be by vibratory roller to a minimum of 95%. The prepared surface shall be moist and no application of the polymer will be made if there is a probability of precipitation within 48 hours of its proposed use. Material Safety Data Sheets will be provided to all applicators working with the material.

Barriers – Woven geo-textiles can be placed on the driving surface to effectively reduce dust throw and particle migration on haul roads. Stone can also be used for construction roads for effective dust control.

Windbreak – A silt fence or similar barrier can control air currents at intervals equal to ten times the barrier height. Preserve existing wind barrier vegetation as much as practical.

Maintenance

Maintain dust control measures through dry weather periods until all disturbed areas are stabilized.

STANDARD AND SPECIFICATIONS FOR COMPOST FILTER SOCK



Definition & Scope

A **temporary** sediment control practice composed of a degradable geotextile mesh tube filled with compost filter media to filter sediment and other pollutants associated with construction activity to prevent their migration offsite.

Condition Where Practice Applies

Compost filter socks can be used in many construction site applications where erosion will occur in the form of sheet erosion and there is no concentration of water flowing to the sock. In areas with steep slopes and/or rocky terrain, soil conditions must be such that good continuous contact between the sock and the soil is maintained throughout its length. For use on impervious surfaces such as road pavement or parking areas, proper anchorage must be provided to prevent shifting of the sock or separation of the contact between the sock and the pavement. Compost filter socks are utilized both at the site perimeter as well as within the construction areas. These socks may be filled after placement by blowing compost into the tube pneumatically, or filled at a staging location and moved into its designed location.

Design Criteria

1. Compost filter socks will be placed on the contour with both terminal ends of the sock extended 8 feet upslope at a 45 degree angle to prevent bypass flow.
2. Diameters designed for use shall be 12" – 32" except

that 8" diameter socks may be used for residential lots to control areas less than 0.25 acres.

3. The flat dimension of the sock shall be at least 1.5 times the nominal diameter.
4. The **Maximum Slope Length** (in feet) above a compost filter sock shall not exceed the following limits:

Dia. (in.)	Slope %						
	2	5	10	20	25	33	50
8	225*	200	100	50	20	—	—
12	250	225	125	65	50	40	25
18	275	250	150	70	55	45	30
24	350	275	200	130	100	60	35
32	450	325	275	150	120	75	50

* Length in feet



5. The compost infill shall be well decomposed (matured at least 3 months), weed-free, organic matter. It shall be aerobically composted, possess no objectionable odors, and contain less than 1%, by dry weight, of man-made foreign matter. The physical parameters of the compost shall meet the standards listed in Table 5.2 - Compost Standards Table. **Note: All biosolids compost produced in New York State (or approved for importation) must meet NYS DEC's 6 NYCRR Part 360 (Solid Waste Management Facilities) requirements. The Part 360 requirements are equal to or more stringent than 40 CFR Part 503 which ensure safe standards for pathogen reduction and heavy metals content. When using compost filter socks adjacent to surface water, the compost should have a low nutrient value.**
6. The compost filter sock fabric material shall meet the

7. Compost filter socks shall be anchored in earth with 2” x 2” wooden stakes driven 12” into the soil on 10 foot centers on the centerline of the sock. On uneven terrain, effective ground contact can be enhanced by the placement of a fillet of filter media on the disturbed area side of the compost sock.
8. All specific construction details and material specifications shall appear on the erosion and sediment control constructions drawings when compost filter socks are included in the plan.
3. Socks shall be inspected weekly and after each runoff event. Damaged socks shall be repaired in the manner required by the manufacturer or replaced within 24 hours of inspection notification.
4. Biodegradable filter socks shall be replaced after 6 months; photodegradable filter socks after 1 year. Polypropylene socks shall be replaced according to the manufacturer’s recommendations.
5. Upon stabilization of the area contributory to the sock, stakes shall be removed. The sock may be left in place and vegetated or removed in accordance with the stabilization plan. For removal the mesh can be cut and the compost spread as an additional mulch to act as a soil supplement.

Maintenance

1. Traffic shall not be permitted to cross filter socks.
2. Accumulated sediment shall be removed when it reaches half the above ground height of the sock and disposed of in accordance with the plan.

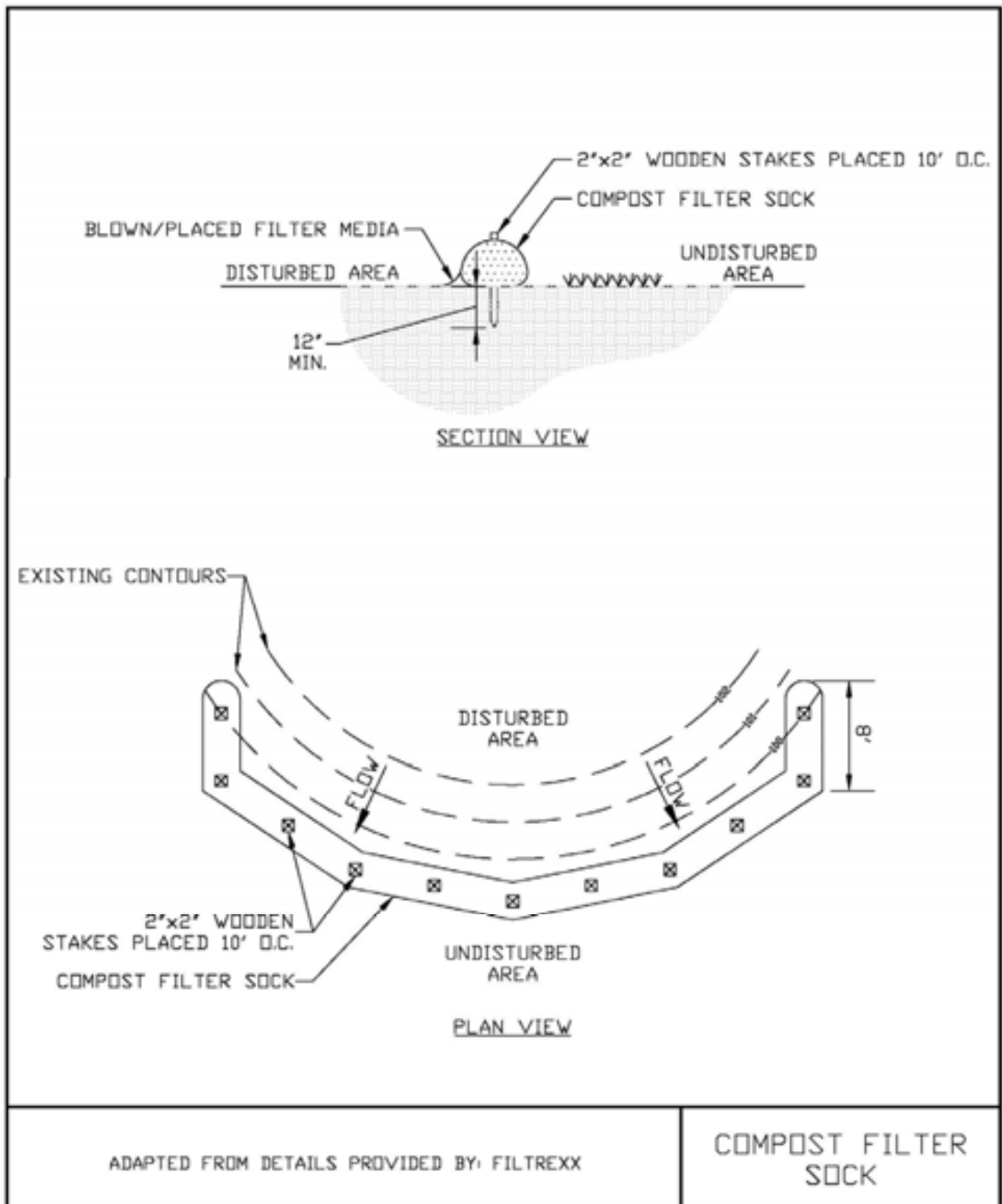
Table 5.1 - Compost Sock Fabric Minimum Specifications Table

Material Type	3 mil HDPE	5 mil HDPE	5 mil HDPE	Multi-Filament Polypropylene (MFPP)	Heavy Duty Multi-Filament Polypropylene (HDMFPP)
Material Characteristics	Photodegradable	Photodegradable	Biodegradable	Photodegradable	Photodegradable
Sock Diameters	12” 18”	12” 18” 24” 32”	12” 18” 24” 32”	12” 18” 24” 32”	12” 18” 24” 32”
Mesh Opening	3/8”	3/8”	3/8”	3/8”	1/8”
Tensile Strength		26 psi	26 psi	44 psi	202 psi
Ultraviolet Stability % Original Strength (ASTM G-155)	23% at 1000 hr.	23% at 1000 hr.		100% at 1000 hr.	100% at 1000 hr.
Minimum Functional Longevity	6 months	9 months	6 months	1 year	2 years

Table 5.2 - Compost Standards Table

Organic matter content	25% - 100% (dry weight)
Organic portion	Fibrous and elongated
pH	6.0 – 8.0
Moisture content	30% - 60%
Particle size	100% passing a 1” screen and 10 - 50% passing a 3/8” screen
Soluble salt concentration	5.0 dS/m (mmhos/cm) maximum

Figure 5.2
Compost Filter Sock



STANDARD AND SPECIFICATIONS FOR LANDGRADING



Definition & Scope

Permanent reshaping of the existing land surface by grading in accordance with an engineering topographic plan and specification to provide for erosion control and vegetative establishment on disturbed, reshaped areas.

Design Criteria

The grading plan should be based upon the incorporation of building designs and street layouts that fit and utilize existing topography and desirable natural surrounding to avoid extreme grade modifications. Information submitted must provide sufficient topographic surveys and soil investigations to determine limitations that must be imposed on the grading operation related to slope stability, effect on adjacent properties and drainage patterns, measures for drainage and water removal, and vegetative treatment, etc.

Many municipalities and counties have regulations and design procedures already established for land grading and cut and fill slopes. Where these requirements exist, they shall be followed.

The plan must show existing and proposed contours of the area(s) to be graded. The plan shall also include practices for erosion control, slope stabilization, safe disposal of runoff water and drainage, such as waterways, lined ditches, reverse slope benches (include grade and cross section), grade stabilization structures, retaining walls, and surface and subsurface drains. The plan shall also include phasing of these practices. The following shall be incorporated into the plan:

1. Provisions shall be made to safely convey surface runoff to storm drains, protected outlets, or to stable water courses to ensure that surface runoff will not

damage slopes or other graded areas; see standards and specifications for Grassed Waterway, Diversion, or Grade Stabilization Structure.

2. Cut and fill slopes that are to be stabilized with grasses shall not be steeper than 2:1. When slopes exceed 2:1, special design and stabilization consideration are required and shall be adequately shown on the plans. (Note: Where the slope is to be mowed, the slope should be no steeper than 3:1, although 4:1 is preferred because of safety factors related to mowing steep slopes.)
3. Reverse slope benches or diversion shall be provided whenever the vertical interval (height) of any 2:1 slope exceeds 20 feet; for 3:1 slope it shall be increased to 30 feet and for 4:1 to 40 feet. Benches shall be located to divide the slope face as equally as possible and shall convey the water to a stable outlet. Soils, seeps, rock outcrops, etc., shall also be taken into consideration when designing benches.
 - A. Benches shall be a minimum of six feet wide to provide for ease of maintenance.
 - B. Benches shall be designed with a reverse slope of 6:1 or flatter to the toe of the upper slope and with a minimum of one foot in depth. Bench gradient to the outlet shall be between 2 percent and 3 percent, unless accompanied by appropriate design and computations.
 - C. The flow length within a bench shall not exceed 800 feet unless accompanied by appropriate design and computations; see Standard and Specifications for Diversion on page 3.9
4. Surface water shall be diverted from the face of all cut and/or fill slopes by the use of diversions, ditches and swales or conveyed downslope by the use of a designed structure, except where:
 - A. The face of the slope is or shall be stabilized and the face of all graded slopes shall be protected from surface runoff until they are stabilized.
 - B. The face of the slope shall not be subject to any concentrated flows of surface water such as from natural drainage ways, graded ditches, downspouts, etc.
 - C. The face of the slope will be protected by anchored stabilization matting, sod, gravel, riprap, or other stabilization method.

5. Cut slopes occurring in ripable rock shall be serrated as shown in Figure 4.9 on page 4.26. The serrations shall be made with conventional equipment as the excavation is made. Each step or serration shall be constructed on the contour and will have steps cut at nominal two-foot intervals with nominal three-foot horizontal shelves. These steps will vary depending on the slope ratio or the cut slope. The nominal slope line is 1 ½: 1. These steps will weather and act to hold moisture, lime, fertilizer, and seed thus producing a much quicker and longer-lived vegetative cover and better slope stabilization. Overland flow shall be diverted from the top of all serrated cut slopes and carried to a suitable outlet.
6. Subsurface drainage shall be provided where necessary to intercept seepage that would otherwise adversely affect slope stability or create excessively wet site conditions.
7. Slopes shall not be created so close to property lines as to endanger adjoining properties without adequately protecting such properties against sedimentation, erosion, slippage, settlement, subsidence, or other related damages.
8. Fill material shall be free of brush, rubbish, rocks, logs, stumps, building debris, and other objectionable material. It should be free of stones over two (2) inches in diameter where compacted by hand or mechanical tampers or over eight (8) inches in diameter where compacted by rollers or other equipment. Frozen material shall not be placed in the fill nor shall the fill material be placed on a frozen foundation.
9. Stockpiles, borrow areas, and spoil shall be shown on the plans and shall be subject to the provisions of this Standard and Specifications.
10. All disturbed areas shall be stabilized structurally or vegetatively in compliance with the Permanent Construction Area Planting Standard on page 4.42.
4. Areas to be filled shall be cleared, grubbed, and stripped of topsoil to remove trees, vegetation, roots, or other objectionable material.
5. Areas that are to be topsoiled shall be scarified to a minimum depth of four inches prior to placement of topsoil.
6. All fills shall be compacted as required to reduce erosion, slippage, settlement, subsidence, or other related problems. Fill intended to support buildings, structures, and conduits, etc., shall be compacted in accordance with local requirements or codes.
7. All fill shall be placed and compacted in layers not to exceed 9 inches in thickness.
8. Except for approved landfills or nonstructural fills, fill material shall be free of frozen particles, brush, roots, sod, or other foreign objectionable materials that would interfere with, or prevent, construction of satisfactory fills.
9. Frozen material or soft, mucky or highly compressible materials shall not be incorporated into fill slopes or structural fills.
10. Fill shall not be placed on saturated or frozen surfaces.
11. All benches shall be kept free of sediment during all phases of development.
12. Seeps or springs encountered during construction shall be handled in accordance with the Standard and Specification for Subsurface Drain on page 3.48 or other approved methods.
13. All graded areas shall be permanently stabilized immediately following finished grading.
14. Stockpiles, borrow areas, and spoil areas shall be shown on the plans and shall be subject to the provisions of this Standard and Specifications.

Construction Specifications

See Figures 4.9 and 4.10 for details.

1. All graded or disturbed areas, including slopes, shall be protected during clearing and construction in accordance with the erosion and sediment control plan until they are adequately stabilized.
2. All erosion and sediment control practices and measures shall be constructed, applied and maintained in accordance with the erosion and sediment control plan and these standards.
3. Topsoil required for the establishment of vegetation shall be stockpiled in amount necessary to complete finished grading of all exposed areas.



Figure 4.9
Typical Section of Serrated Cut Slope

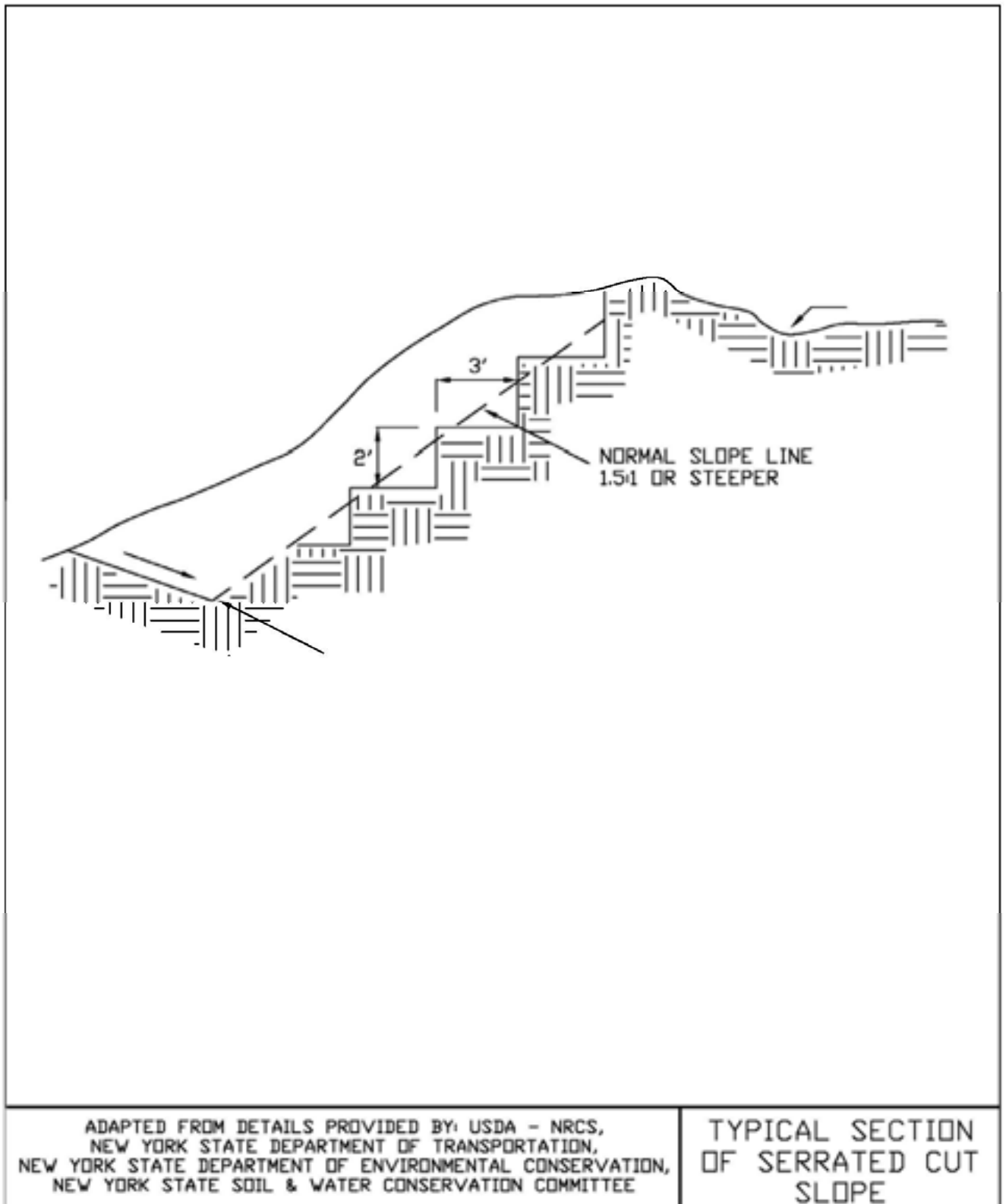


Figure 4.10
Landgrading

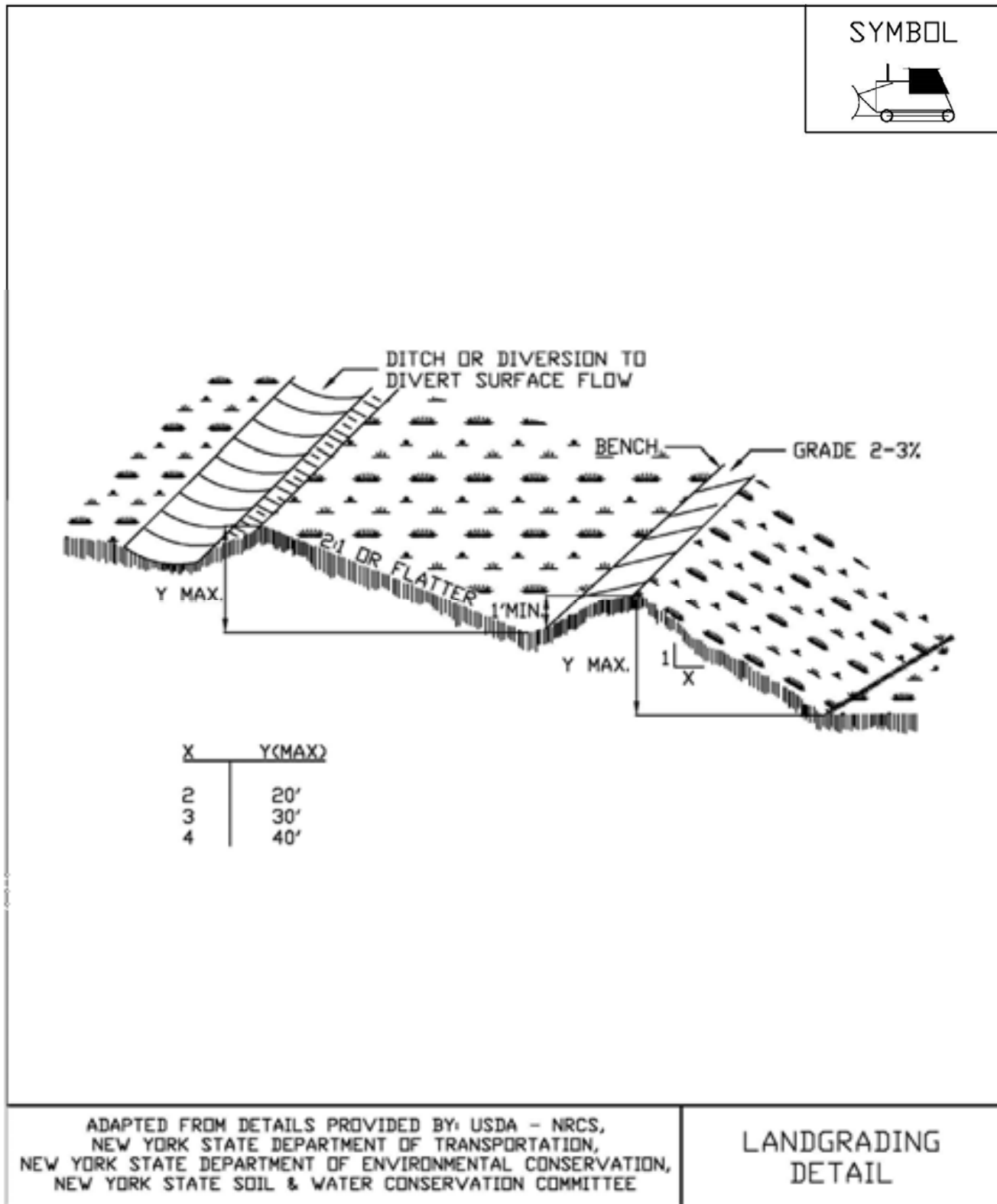


Figure 4.11
Landgrading - Construction Specifications

<u>CONSTRUCTION SPECIFICATIONS</u>	
<ol style="list-style-type: none"> 1. ALL GRADED OR DISTURBED AREAS INCLUDING SLOPES SHALL BE PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN UNTIL THEY ARE PERMANENTLY STABILIZED. 2. ALL SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN. 3. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN AMOUNT NECESSARY TO COMPLETE FINISHED GRADING OF ALL EXPOSED AREAS. 4. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIAL. 5. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF FOUR INCHES PRIOR TO PLACEMENT OF TOPSOIL. 6. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES. 7. ALL FILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS. 8. EXCEPT FOR APPROVED LANDFILLS, FILL MATERIAL SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS. 9. FROZEN MATERIALS OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED IN FILLS. 10. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES. 11. ALL BENCHES SHALL BE KEPT FREE OF SEDIMENT DURING ALL PHASES OF DEVELOPMENT. 12. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD. 13. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING. 14. STOCKPILES, BORROW AREAS AND SPOIL AREAS SHALL BE SHOWN ON THE PLANS AND SHALL BE SUBJECT TO THE PROVISIONS OF THIS STANDARD AND SPECIFICATION. 	
<p style="font-size: small; margin: 0;">ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE</p>	<p style="font-size: large; margin: 0;">LANDGRADING SPECIFICATIONS</p>

STANDARD AND SPECIFICATIONS FOR PERMANENT CONSTRUCTION AREA PLANTING



Definition & Scope

Establishing **permanent** grasses with other forbs and/or shrubs to provide a minimum 80% perennial vegetative cover on areas disturbed by construction and critical areas to reduce erosion and sediment transport. Critical areas may include but are not limited to steep excavated cut or fill slopes as well as eroding or denuded natural slopes and areas subject to erosion.

Conditions Where Practice Applies

This practice applies to all disturbed areas void of, or having insufficient, cover to prevent erosion and sediment transport. See additional standards for special situations such as sand dunes and sand and gravel pits.

Criteria

All water control measures will be installed as needed prior to final grading and seedbed preparation. Any severely compacted sections will require chiseling or disking to provide an adequate rooting zone, to a minimum depth of 12", see Soil Restoration Standard. The seedbed must be prepared to allow good soil to seed contact, with the soil not too soft and not too compact. Adequate soil moisture must be present to accomplish this. If surface is powder dry or sticky wet, postpone operations until moisture changes to a favorable condition. If seeding is accomplished within 24 hours of final grading, additional scarification is generally not needed, especially on ditch or stream banks. Remove all stones and other debris from the surface that are greater than 4 inches, or that will interfere with future mowing or maintenance.

Soil amendments should be incorporated into the upper 2 inches of soil when feasible. **The soil should be tested to determine the amounts of amendments needed.** Apply

ground agricultural limestone to attain a pH of 6.0 in the upper 2 inches of soil. If soil must be fertilized before results of a soil test can be obtained to determine fertilizer needs, apply commercial fertilizer at 600 lbs. per acre of 5-5-10 or equivalent. If manure is used, apply a quantity to meet the nutrients of the above fertilizer. This requires an appropriate manure analysis prior to applying to the site. Do not use manure on sites to be planted with birdsfoot trefoil or in the path of concentrated water flow.

Seed mixtures may vary depending on location within the state and time of seeding. Generally, warm season grasses should only be seeded during early spring, April to May. These grasses are primarily used for vegetating excessively drained sands and gravels. See Standard and Specification for Sand and Gravel Mine Reclamation. Other grasses may be seeded any time of the year when the soil is not frozen and is workable. When legumes such as birdsfoot trefoil are included, spring seeding is preferred. See Table 4.4, "Permanent Construction Area Planting Mixture Recommendations" for additional seed mixtures.

<u>General Seed Mix:</u>	Variety	lbs./acre	lbs/1000 sq. ft.
Red Clover ¹ <u>OR</u>	Acclaim, Rally, Red Head II, Renegade	8 ²	0.20
Common white clover ¹	Common	8	0.20
<u>PLUS</u>			
Creeping Red Fescue	Common	20	0.45
<u>PLUS</u>			
Smooth Bromegrass <u>OR</u>	Common	2	0.05
Ryegrass (perennial)	Pennfine/Linn	5	0.10
¹ add inoculant immediately prior to seeding ² Mix 4 lbs each of Empire and Pardee OR 4 lbs of Birdsfoot and 4 lbs white clover per acre. All seeding rates are given for Pure Live Seed (PLS)			

Pure Live Seed, or (PLS) refers to the amount of live seed in a lot of bulk seed. Information on the seed bag label includes the type of seed, supplier, test date, source of seed, purity, and germination. Purity is the percentage of pure seed. Germination is the percentage of pure seed that will produce normal plants when planted under favorable conditions.

To compute Pure Live Seed multiply the “germination percent” times the “purity” and divide that by 100 to get Pure Live Seed.

$$\text{Pure Live Seed (PLS)} = \frac{\% \text{ Germination} \times \% \text{ Purity}}{100}$$

For example, the PLS for a lot of Kentucky Blue grass with 75% purity and 96% germination would be calculated as follows:

$$\frac{(96) \times (75)}{100} = 72\% \text{ Pure Live Seed}$$

For 10lbs of PLS from this lot =

$$\frac{10}{0.72} = 13.9 \text{ lbs}$$

Therefore, 13.9 lbs of seed is the actual weight needed to meet 10lbs PSL from this specific seed lot.

Time of Seeding: The optimum timing for the general seed mixture is early spring. Permanent seedings may be made any time of year if properly mulched and adequate moisture is provided. Late June through early August is not a good time to seed, but may facilitate covering the land without additional disturbance if construction is completed. Portions of the seeding may fail due to drought and heat. These areas may need reseeding in late summer/fall or the following spring.

Method of seeding: Broadcasting, drilling, cultipack type seeding, or hydroseeding are acceptable methods. Proper soil to seed contact is key to successful seedings.

Mulching: Mulching is essential to obtain a uniform stand of seeded plants. Optimum benefits of mulching new seedings are obtained with the use of small grain straw applied at a rate of 2 tons per acre, and anchored with a netting or tackifier. See the Standard and Specifications for Mulching for choices and requirements.

Irrigation: Watering may be essential to establish a new seeding when a drought condition occurs shortly after a new seeding emerges. Irrigation is a specialized practice and care must be taken not to exceed the application rate for the soil or subsoil. When disconnecting irrigation pipe, be sure pipes are drained in a safe manor, not creating an erosion concern.



80% Perennial Vegetative Cover



50% Perennial Vegetative Cover

**Table 4.4
Permanent Construction Area Planting Mixture Recommendations**

Seed Mixture	Variety	Rate in lbs./acre (PLS)	Rate in lbs./1,000 ft ²
Mix #1			
Creeping red fescue	Ensylva, Pennlawn, Boreal	10	.25
Perennial ryegrass	Pennfine, Linn	10	.25
*This mix is used extensively for shaded areas.			
Mix #2			
Switchgrass	Shelter, Pathfinder, Trailblazer, or Blackwell	20	.50
*This rate is in pure live seed, this would be an excellent choice along the upland edge of a wetland to filter runoff and provide wildlife benefits. In areas where erosion may be a problem, a companion seeding of sand lovegrass should be added to provide quick cover at a rate of 2 lbs. per acre (0.05 lbs. per 1000 sq. ft.).			
Mix #3			
Switchgrass	Shelter, Pathfinder, Trailblazer, or Blackwell	4	.10
Big bluestem	Niagara	4	.10
Little bluestem	Aldous or Camper	2	.05
Indiangrass	Rumsey	4	.10
Coastal panicgrass	Atlantic	2	.05
Sideoats grama	El Reno or Trailway	2	.05
Wildflower mix		.50	.01
*This mix has been successful on sand and gravel plantings. It is very difficult to seed without a warm season grass seeder such as a Truax seed drill. Broadcasting this seed is very difficult due to the fluffy nature of some of the seed, such as bluestems and indiangrass.			
Mix #4			
Switchgrass	Shelter, Pathfinder, Trailblazer, or Blackwell	10	.25
Coastal panicgrass	Atlantic	10	.25
*This mix is salt tolerant, a good choice along the upland edge of tidal areas and roadsides.			
Mix #5			
Saltmeadow cordgrass (<i>Spartina patens</i>)—This grass is used for tidal shoreline protection and tidal marsh restoration. It is planted by vegetative stem divisions.			
'Cape' American beachgrass can be planted for sand dune stabilization above the saltmeadow cordgrass zone.			
Mix #6			
Creeping red fescue	Ensylva, Pennlawn, Boreal	20	.45
Chewings Fescue	Common	20	.45
Perennial ryegrass	Pennfine, Linn	5	.10
Red Clover	Common	10	.45
*General purpose erosion control mix. Not to be used for a turf planting or play grounds.			

STANDARD AND SPECIFICATIONS FOR SILT FENCE



Definition & Scope

A **temporary** barrier of geotextile fabric installed on the contours across a slope used to intercept sediment laden runoff from small drainage areas of disturbed soil by temporarily ponding the sediment laden runoff allowing settling to occur. The maximum period of use is limited by the ultraviolet stability of the fabric (approximately one year).

Conditions Where Practice Applies

A silt fence may be used subject to the following conditions:

1. Maximum allowable slope length and fence length will not exceed the limits shown in the Design Criteria for the specific type of silt fence used ; and
2. Maximum ponding depth of 1.5 feet behind the fence; and
3. Erosion would occur in the form of sheet erosion; and
4. There is no concentration of water flowing to the barrier; and
5. Soil conditions allow for proper keying of fabric, or other anchorage, to prevent blowouts.

Design Criteria

1. Design computations are not required for installations of 1 month or less. Longer installation periods should be designed for expected runoff.
2. All silt fences shall be placed as close to the disturbed area as possible, but at least 10 feet from the toe of a slope steeper than 3H:1V, to allow for maintenance and

roll down. The area beyond the fence must be undisturbed or stabilized.

3. The type of silt fence specified for each location on the plan shall not exceed the maximum slope length and maximum fence length requirements shown in the following table:

		Slope Length/Fence Length (ft.)		
Slope	Steepness	Standard	Reinforced	Super
<2%	< 50:1	300/1500	N/A	N/A
2-10%	50:1 to 10:1	125/1000	250/2000	300/2500
10-20%	10:1 to 5:1	100/750	150/1000	200/1000
20-33%	5:1 to 3:1	60/500	80/750	100/1000
33-50%	3:1 to 2:1	40/250	70/350	100/500
>50%	> 2:1	20/125	30/175	50/250

Standard Silt Fence (SF) is fabric rolls stapled to wooden stakes driven 16 inches in the ground.
Reinforced Silt Fence (RSF) is fabric placed against welded wire fabric with anchored steel posts driven 16 inches in the ground.
Super Silt Fence (SSF) is fabric placed against chain link fence as support backing with posts driven 3 feet in the ground.

4. Silt fence shall be removed as soon as the disturbed area has achieved final stabilization.

The silt fence shall be installed in accordance with the appropriate details. Where ends of filter cloth come together, they shall be overlapped, folded and stapled to prevent sediment bypass. Butt joints are not acceptable. A detail of the silt fence shall be shown on the plan. See Figure 5.30 on page 5.56 for Reinforced Silt Fence as an example of details to be provided.

Criteria for Silt Fence Materials

1. Silt Fence Fabric: The fabric shall meet the following specifications unless otherwise approved by the appropriate erosion and sediment control plan approval authority. Such approval shall not constitute statewide acceptance.

Fabric Properties	Minimum Acceptable Value	Test Method
Grab Tensile Strength (lbs)	110	ASTM D 4632
Elongation at Failure (%)	20	ASTM D 4632
Mullen Burst Strength (PSI)	300	ASTM D 3786
Puncture Strength (lbs)	60	ASTM D 4833
Minimum Trapezoidal Tear Strength (lbs)	50	ASTM D 4533
Flow Through Rate (gal/min/sf)	25	ASTM D 4491
Equivalent Opening Size	40-80	US Std Sieve ASTM D 4751
Minimum UV Residual (%)	70	ASTM D 4355

Super Silt Fence

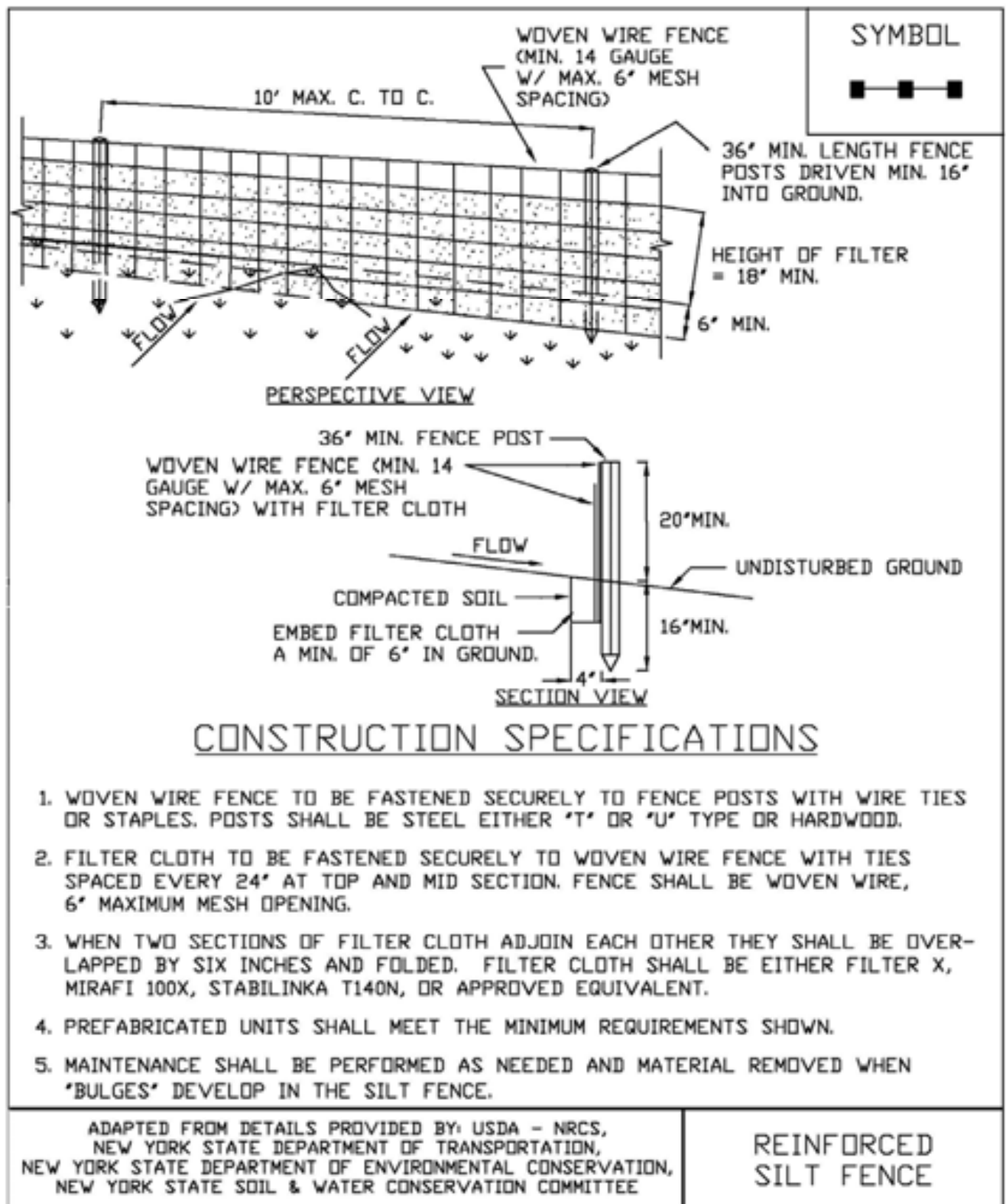


2. Fence Posts (for fabricated units): The length shall be a minimum of 36 inches long. Wood posts will be of sound quality hardwood with a minimum cross sectional area of 3.5 square inches. Steel posts will be standard T and U section weighing not less than 1.00 pound per linear foot. Posts for super silt fence shall be standard chain link fence posts.
3. Wire Fence for reinforced silt fence: Wire fencing shall be a minimum 14 gage with a maximum 6 in. mesh opening, or as approved.
4. Prefabricated silt fence is acceptable as long as all material specifications are met.

Reinforced Silt Fence



**Figure 5.30
Reinforced Silt Fence**



STANDARD AND SPECIFICATIONS FOR TEMPORARY CONSTRUCTION AREA SEEDING



Definition & Scope

Providing temporary erosion control protection to disturbed areas and/or localized critical areas for an interim period by covering all bare ground that exists as a result of construction activities or a natural event. Critical areas may include but are not limited to steep excavated cut or fill slopes and any disturbed, denuded natural slopes subject to erosion.

Conditions Where Practice Applies

Temporary seedings may be necessary on construction sites to protect an area, or section, where final grading is complete, when preparing for winter work shutdown, or to provide cover when permanent seedings are likely to fail due to mid-summer heat and drought. The intent is to provide temporary protective cover during temporary shutdown of construction and/or while waiting for optimal planting time.

Criteria

Water management practices must be installed as appropriate for site conditions. The area must be rough graded and slopes physically stable. Large debris and rocks are usually removed. Seedbed must be seeded within 24 hours of disturbance or scarification of the soil surface will be necessary prior to seeding.

Fertilizer or lime are not typically used for temporary seedings.

IF: Spring or summer or early fall, then seed the area with ryegrass (annual or perennial) at 30 lbs. per acre (Approximately 0.7 lb./1000 sq. ft. or use 1 lb./1000 sq. ft.).

IF: Late fall or early winter, then seed Certified 'Aroostook' winter rye (cereal rye) at 100 lbs. per acre (2.5 lbs./1000 sq. ft.).

Any seeding method may be used that will provide uniform application of seed to the area and result in relatively good soil to seed contact.

Mulch the area with hay or straw at 2 tons/acre (approx. 90 lbs./1000 sq. ft. or 2 bales). Quality of hay or straw mulch allowable will be determined based on long term use and visual concerns. Mulch anchoring will be required where wind or areas of concentrated water are of concern. Wood fiber hydromulch or other sprayable products approved for erosion control (nylon web or mesh) may be used if applied according to manufacturers' specification. Caution is advised when using nylon or other synthetic products. They may be difficult to remove prior to final seeding and can be a hazard to young wildlife species.

STANDARD AND SPECIFICATIONS FOR TOPSOILING



Definition & Scope

Spreading a specified quality and quantity of topsoil materials on graded or constructed subsoil areas to provide acceptable plant cover growing conditions, thereby reducing erosion; to reduce irrigation water needs; and to reduce the need for nitrogen fertilizer application.

Conditions Where Practice Applies

Topsoil is applied to subsoils that are droughty (low available moisture for plants), stony, slowly permeable, salty or extremely acid. It is also used to backfill around shrub and tree transplants. This standard does not apply to wetland soils.

Design Criteria

1. Preserve existing topsoil in place where possible, thereby reducing the need for added topsoil.
2. Conserve by stockpiling topsoil and friable fine textured subsoils that must be stripped from the excavated site and applied after final grading where vegetation will be established. Topsoil stockpiles must be stabilized. Stockpile surfaces can be stabilized by vegetation, geotextile or plastic covers. This can be aided by orientating the stockpile lengthwise into prevailing winds.
3. Refer to USDA Natural Resource Conservation Service soil surveys or soil interpretation record sheets for further soil texture information for selecting appropriate design topsoil depths.

Site Preparation

1. As needed, install erosion and sediment control practices such as diversions, channels, sediment traps, and stabilizing measures, or maintain if already installed.
2. Complete rough grading and final grade, allowing for depth of topsoil to be added.
3. Scarify all compact, slowly permeable, medium and fine textured subsoil areas. Scarify at approximately right angles to the slope direction in soil areas that are steeper than 5 percent. Areas that have been overly compacted shall be decompact in accordance with the Soil Restoration Standard.
4. Remove refuse, woody plant parts, stones over 3 inches in diameter, and other litter.

Topsoil Materials

1. Topsoil shall have at least 6 percent by weight of fine textured stable organic material, and no greater than 20 percent. Muck soil shall not be considered topsoil.
2. Topsoil shall have not less than 20 percent fine textured material (passing the NO. 200 sieve) and not more than 15 percent clay.
3. Topsoil treated with soil sterilants or herbicides shall be so identified to the purchaser.
4. Topsoil shall be relatively free of stones over 1 1/2 inches in diameter, trash, noxious weeds such as nut sedge and quackgrass, and will have less than 10 percent gravel.
5. Topsoil containing soluble salts greater than 500 parts per million shall not be used.
6. Topsoil may be manufactured as a mixture of a mineral component and organic material such as compost.

Application and Grading

1. Topsoil shall be distributed to a uniform depth over the area. It shall not be placed when it is partly frozen, muddy, or on frozen slopes or over ice, snow, or standing water puddles.
2. Topsoil placed and graded on slopes steeper than 5 percent shall be promptly fertilized, seeded, mulched, and stabilized by “tracking” with suitable equipment.
3. Apply topsoil in the amounts shown in Table 4.7 below:

Table 4.7 - Topsoil Application Depth		
Site Conditions	Intended Use	Minimum Topsoil Depth
1. Deep sand or loamy sand	Mowed lawn	6 in.
	Tall legumes, unmowed	2 in.
	Tall grass, unmowed	1 in.
2. Deep sandy loam	Mowed lawn	5 in.
	Tall legumes, unmowed	2 in.
	Tall grass, unmowed	none
3. Six inches or more: silt loam, clay loam, loam, or silt	Mowed lawn	4 in.
	Tall legumes, unmowed	1 in.
	Tall grass, unmowed	1 in.

APPENDIX D – US FISH AND WILDLIFE BIOLOGICAL OPINION



United States Department of the Interior

FISH AND WILDLIFE SERVICE
3817 Luker Road
Cortland, New York 13045



December 14, 2018

Mr. Jonathan Zack DeLaune
Environmental Protection Specialist
U.S. Department of Transportation
Federal Aviation Administration
New York Airports District Office
1 Aviation Plaza, Suite 111
Jamaica, NY 11434

Dear Mr. DeLaune:

This document transmits the U.S. Fish and Wildlife Service's (Service) biological opinion (Opinion) based on our review of the proposed Master Plan Phase 1 Projects (referred to as "Project" for the remainder of this document) located at the Saratoga County Airport (Airport) in the Town of Milton, Saratoga County (County), New York, and their effects on the federally listed endangered Karner blue butterfly (*Lycaeides melissa samuelis*) and the federally listed threatened northern long-eared bat (*Myotis septentrionalis*) in accordance with section 7 of the Endangered Species Act (16 U.S.C. 1531-1544, 87 Stat. 884), as amended (ESA). Your July 16, 2018, request for formal consultation was received on July 18, 2018. The Service received an extension for completing this Opinion from the Federal Aviation Administration (FAA) on November 6, 2018.

This Opinion is based on information provided in the July 2018 Biological Assessment (BA) (McFarland-Johnson, Inc. 2018a), the July 2018 Environmental Assessment (McFarland-Johnson, Inc. 2018b), telephone conversations, field investigations, and other sources of information. The consultation history is located in Appendix A. A complete administrative record of this consultation is on file in this office.

The FAA has concluded that the proposed action will not result in any prohibited incidental take of the northern long-eared bat. This Project may affect the northern long-eared bat; however, there are no effects beyond those previously disclosed in the Service's programmatic biological opinion for the final 4(d) rule dated January 5, 2016. Any taking that may occur incidental to this Project is not prohibited under the final 4(d) rule (50 CFR §17.40(o)). This Project is consistent with the description of the proposed action in the programmatic biological opinion, and the 4(d) rule does not prohibit incidental take of the northern long-eared bat that may occur as a result of this Project. Therefore, the programmatic biological opinion satisfies the FAA's

responsibilities under the ESA section 7(a)(2) relative to the northern long-eared bat for this Project.

Please keep in mind that you must report any departures from the plans submitted; results of any surveys conducted; or, any dead, injured, or sick northern long-eared bats that are found. If the removal components of the Project are not completed within 1 year of this letter, you must update your determination and resubmit the required information.

The frosted elfin (*Collophrys irus irus*) is a butterfly listed by the State of New York that also occurs at the Saratoga Airport. Adverse and beneficial impacts are anticipated to be similar for the frosted elfin as those to the Karner blue butterfly. We appreciate any pro-active efforts the County and FAA take to conserve the frosted elfin.

BIOLOGICAL OPINION

DESCRIPTION OF PROPOSED ACTION

As defined in the ESA section 7 regulations (50 CFR 402.02), “action” means “all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by federal agencies in the United States or upon the high seas.”

The following is a summary of the proposed action and a detailed description and maps can be found in the BA.

The County is proposing several Airport Projects at the Airport in the Town of Milton, Saratoga County, New York (Figures 1a and 1b). Several components are likely to adversely affect the Karner blue butterfly and mitigation efforts are also included to help offset impacts (see below).

The FAA is the lead federal agency for the evaluation and approval of the Project. The proposed action will be funded by a variety of sources including FAA grants, the County, and New York State Department of Transportation.

The proposed action includes the following components and is summarized in Table 1:

- Partial-Parallel Taxiway A Construction;
- Taxiway C Improvements;
- Glider Operations Improvements;
- Wildlife Hazard Management Plan (WHMP) Implementation – Mowing Plan Revisions;
- WHMP Implementation – Perimeter Fence Improvements;
- Land and/or Easement Acquisition Land Use Control and Vegetation Obstruction Removal;
- Off-Airport Habitat Mitigation; and
- Operations and Maintenance done in accordance with the Habitat Management and Protection Plan (HMPP).

Saratoga County Airport, Town of Milton, New York

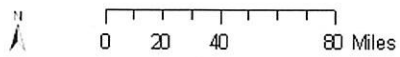
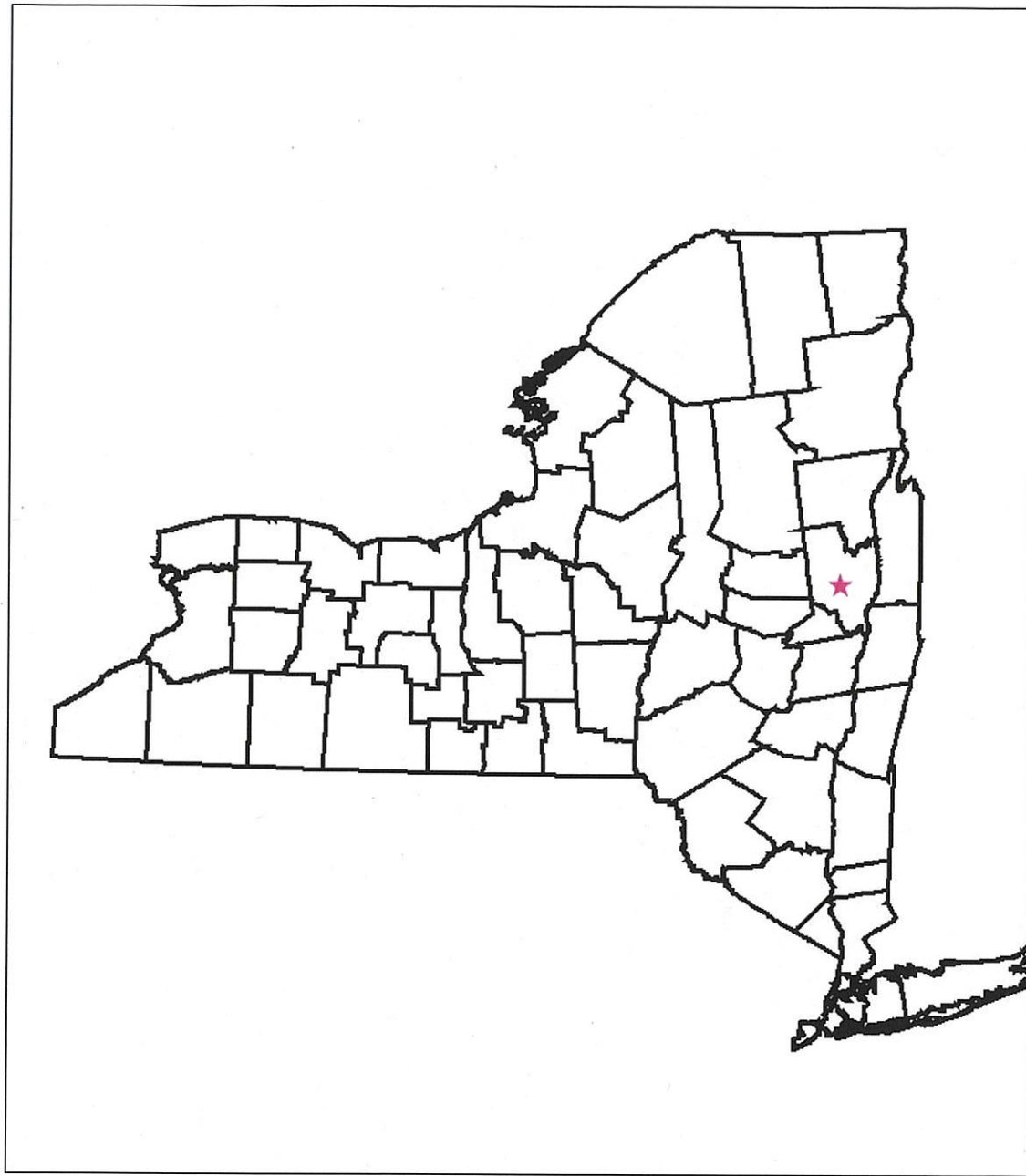


Figure 1a. Location of Saratoga County Airport.

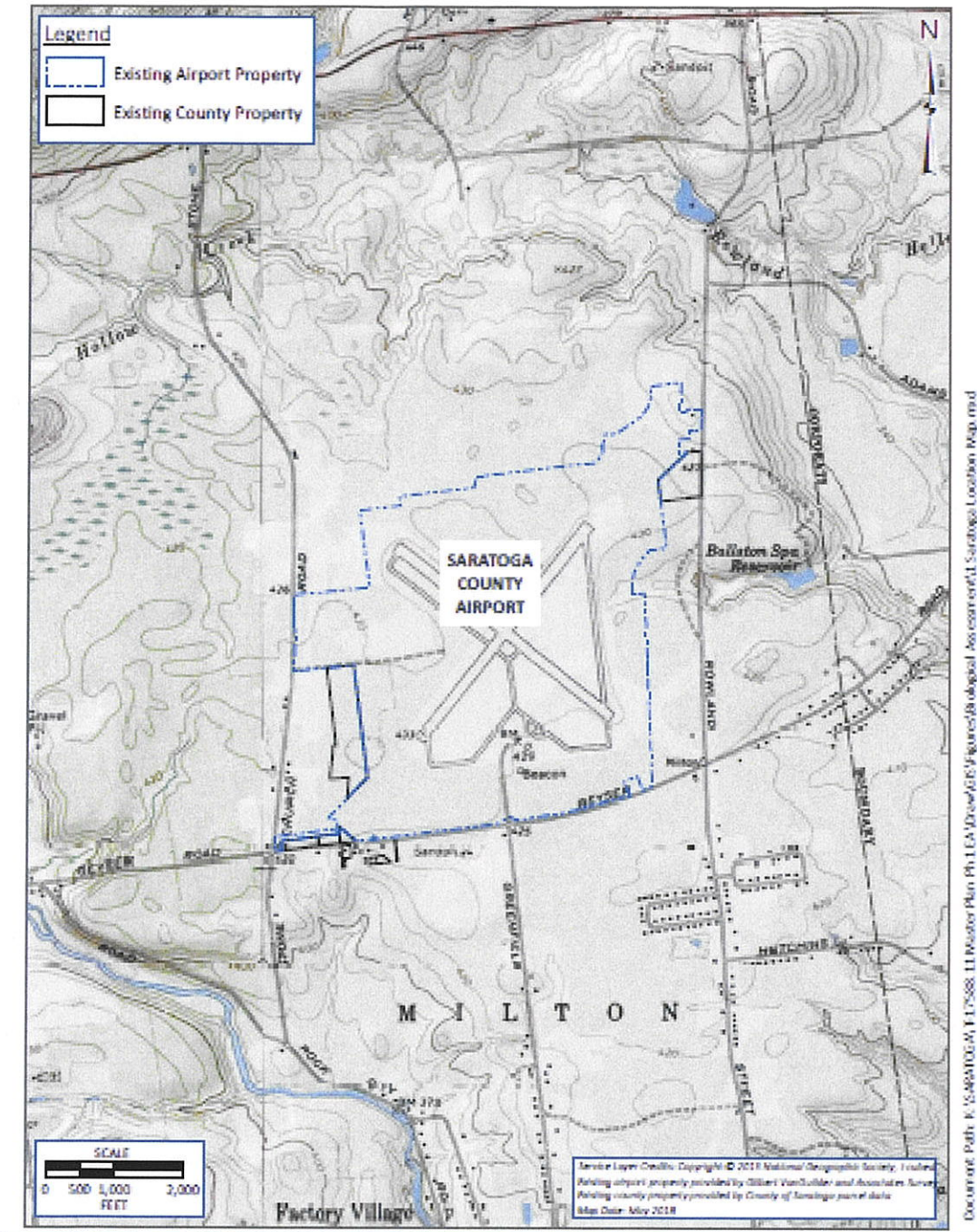


Figure 1b. Location of Saratoga County Airport.

Table 1. Proposed Action Components

Project Title	Project Activity
Partial-Parallel Taxiway A Construction	Construct a 1,650-foot asphalt taxiway, 50 feet wide, on the southeasterly side of Runway 5-23
	Construct stormwater features
	Remove stub taxiway connecting Taxiway B to Runway 32
	Abandon Taxiway D in place - Northern and southern portions will be used as glider staging areas and remainder will be abandoned
	Install and relocate Medium Intensity Taxiway Edge Lighting (MITL) where necessary along the proposed and existing taxiway – 10 feet off pavement
	Remove existing taxiway lighting fixtures from the abandoned taxiways - the lighting conduit and bases will be left in place and caps will be placed over any openings
	Remove taxiway signage for the old taxiways - the signage conduit and foundations will be left in place and caps will be placed over any openings
	Install taxiway signage 32 feet off of pavement for the new taxiway
	Relocate the existing Airport wind sock to the east of the proposed taxiway
	Reseed turf areas with little bluestem
Taxiway C Improvements	Straighten Taxiway C to provide right-angle intersection with Runway 32
	Construct 0.50-acre asphalt taxiway
	Construct stormwater features
	Abandon existing taxiway section between apron and Runway 32 for use by gliders
	Relocate and install MITL
	Remove existing taxiway lighting fixtures from the abandoned taxiways - the lighting conduit and bases will be left in place and caps will be placed over any openings
	Remove taxiway signage for the old taxiways - the signage conduit and foundations will be left in place and caps will be placed over any openings
	Install signage
Reseed turf areas with little bluestem	
Glider Operations Improvements	Construct an approximate 0.38-acre turf run-up/glider staging area at the current bend in Taxiway C
	Install retroreflective markers on the edge of the run-up area, between the proposed Taxiway C and the glider run-up area
	Reseed turf areas with little bluestem

Project Title	Project Activity
Mowing Plan Revisions	Conduct annual mowing operations (unrestricted) of 67.47 acres of runway safety areas (RSA) and taxiway safety areas (TSA) (Exempt Area ¹)
Perimeter Fence Improvements	Remove 1.2 acres of trees
	Remove existing 6-foot high perimeter fence
	Install 10-foot high chain link fence
	Reseed turf areas with little bluestem
	Mow 8-foot wide grass corridor
Land and/or Easement Acquisition Land Use Control and Vegetation Obstruction Removal	Remove 0.11 acres of trees on Airport property along the perimeter fence on the Runway 32 end
	Remove 15.55 acres of trees of Airport property on the end of runways
Off-Airport Habitat Mitigation	Restore and manage 180 acres of Karner blue butterfly habitat on County-owned property in the Towns of Wilton and Northumberland
Operations and Maintenance	Follow Mowing Plan in HMPP – non-Exempt Area (~226 acres)
	Conduct snow removal following HMPP
	Ensure glider operations follow HMPP

Conservation Measures

In addition to any specific measures discussed above, the following conservation measures will be implemented during construction, operation, and management associated with the Project:

- A construction monitor will be onsite during construction to ensure compliance with the conservation measures;
- Post-mounted signs (4-foot by 8-foot) will be placed at the entrances to the active haul roads (within exempt or temporary construction impact areas) with instructions to remind drivers to remain on existing gravel and paved areas;
- New York State Department of Environmental Conservation (NYSDEC) will be notified prior to commencement of construction activities and immediately after completion of construction. Ongoing coordination with NYSDEC during construction will be conducted if necessary; and
- All construction, operation, and management of activities will be under the management of County personnel.

The HMPP lists additional conservation measures for all operations and maintenance activities at the Airport. For example, the County will:

- Avoid use of machinery on all habitat areas at any time of the year with the exception of those areas and times specifically identified in the HMPP.

¹ Exempt Area – term used to define area of Airport “exempt” from conservation measures (e.g., mowing time of year restrictions)

- Annually instruct its employees of the mowing schedule and the restrictions of driving or parking any vehicles outside of designated areas and will emphasize the importance of adhering to the terms of the HMPP.
- Annually inform Airport tenants about restrictions on operation of aircraft or vehicles off-pavement in undesignated areas.
- Encourage Airport tenants to inform any pilots they are in radio contact with of these restrictions.
- Erect signs at the entrance road advising visitors and pilots that vehicles may be parked only in designated areas and may not be parked off-pavement.
- Request a pilot notification be placed in the FAA Airport Facility Directory regarding restrictions and unauthorized off-pavement operations.
- Mow the rest of the Airport (non-Exempt) between October 15 and December 31.
- Annually ensure gliders tie-down, take off, land, and assemble in approved areas.
- Coordinate with NYSDEC and the Service regarding any changes to operations at the Airport.
- Provide access to NYSDEC to conduct periodic surveys of Karner blue butterflies and frosted elfin butterflies.

ACTION AREA

The Action Area is defined (50 CFR 402.02) as “all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action.” The Service has determined that the Action Area for this Project is the Airport and the off-Airport obstruction removal areas and mitigation areas.

STATUS OF THE SPECIES

Per ESA section 7 regulations (50 CFR 402.14(g)(2)), it is the Service’s responsibility to “evaluate the current status of the listed species or critical habitat.” The Service listed the Karner blue butterfly as endangered on December 14, 1992 (57 FR 59236). This species has been listed as endangered by the State of New York since April 1977. The following is a summary of the Karner blue butterfly’s individual and population needs drawn from the Karner Blue Butterfly Recovery Plan (Recovery Plan) (Service 2003).

The Karner blue butterfly has two broods, or adult flight periods, each year. Eggs that have overwintered from the previous year hatch in April. The larvae feed on wild lupine leaves and mature rapidly. Near the end of May, the larvae pupate and adult Karner blue butterflies emerge very late in May in most years. The adults are typically in flight for the first 10 to 15 days of June when the wild lupine is in bloom. Female Karner blue butterflies lay eggs on or near wild lupine plants. The eggs hatch in about 1 week and the larvae feed for about 3 weeks. They then pupate and the second brood of adults appears about the first or second week of July. This flight of adults lays their eggs among leaf litter or on grass blades at the base of lupines or on lupine pods or stems; these eggs do not hatch until the following spring. Generally, by late August, no adults remain. Cold and/or rainy weather can delay the two flight periods of the butterfly.

In addition to wild lupine, the Karner blue butterfly generally requires tall grass for late afternoon basking and overnight roosting, some shading vegetation to prevent overheating, a

source of water, and nectar sources for the adults. A variety of understory plants serve as nectar sources for the adults.

Since the only known food plant for Karner blue butterfly larvae is wild lupine, the distribution of the Karner blue butterfly is closely tied to the distribution of habitats that support the wild lupine. In eastern New York and in New Hampshire, this habitat typically occupies sandplain communities and grassy openings within very dry pitch pine/scrub oak barrens. In the mid-western states, the habitat is also dry, sandy openings, including openings in oak savannas, jack pine (*Pinus banksiana*) stands, and dune or sandplain communities.

The Karner blue butterfly is an example of a species for which suitable habitat occurs in relatively small areas (or patches) distributed over the landscape. Like other species whose habitat occurs in patches rather than large continuous tracts of land, populations of the Karner blue butterfly exist as dynamic collections of subpopulations (metapopulations) that are interconnected genetically by dispersal. Metapopulations have been described further as dynamic clusters of subpopulations (or demes) continually shifting in distribution across a changing landscape of habitat patches in varying stages of disturbance and succession (Givnish et al. 1988, Schweitzer 1989).

To preserve species with patch distributions, it is necessary to maintain: (1) existing patches of suitable habitat, (2) the processes that create new habitat patches, and (3) the corridors that allow a species to migrate between habitat patches (Harrison et al. 1998). Various research has shown dispersal of the Karner blue butterfly to range from about 200 yards (about 600 feet) to about 2 miles. Recent research has described most dispersal activity to occur within approximately 300 meters (328 yards) of occupied habitat (Dorian, unpublished data). Open linear areas such as road and railroad right-of-ways, utility corridors, and forest roads and trails can serve as dispersal corridors for the Karner blue butterfly allowing them to re-colonize or colonize wild lupine patches.

To assess the current status of the species, it is helpful to first understand the species' conservation needs which are generally described in terms of reproduction, numbers, and distribution (RND). The Service has more recently characterized RND for a given species via the conservation principles of resiliency (ability of species/populations to withstand stochastic events which is measured in metrics such as numbers, growth rates), redundancy (ability of a species to withstand catastrophic events which is measured in metrics such as number of populations and their distribution), and representation (variation/ability of a species to adapt to changing conditions which may include behavioral, morphological, genetics, or other variation) (collectively known as the three Rs) (Shaffer et al. 2002; Wolf et al. 2015; Smith et al. 2018).

Thirteen ecological regions or recovery units and six potential recovery units² are identified in the Recovery Plan (Figure 2).

² Recovery Units are designed to address redundancy (multiple units and multiple populations within units) and representation (units are broadly distributed across the range).

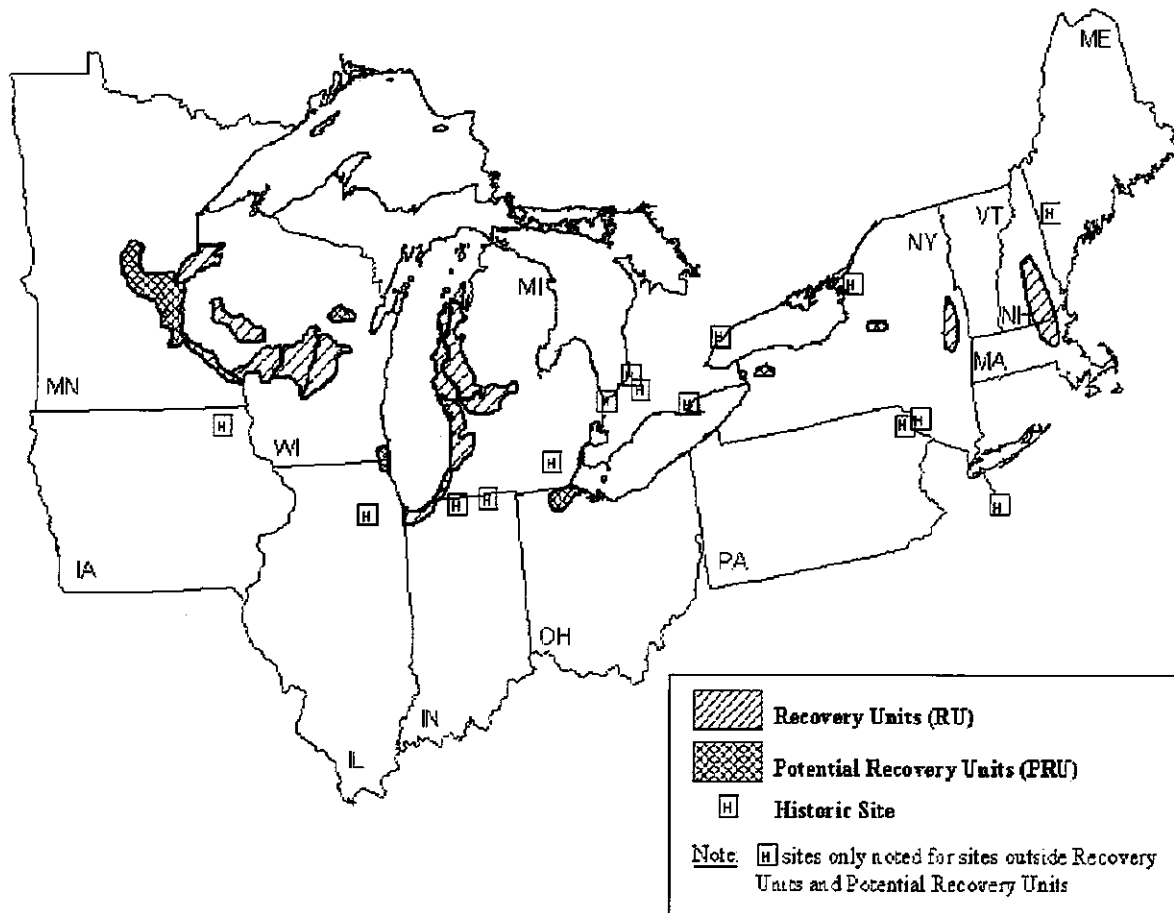


Figure 2. Karner Blue Butterfly Recovery Units (Service 2003).

The criteria (summarized) for reclassification from endangered to threatened status are:

1. Establish a minimum of 27 metapopulations (19 viable populations (VP) and 8 large viable populations (LP))³ of Karner blues in the 13 specified recovery units; and
2. Each VP shall have:
 - a. a management and monitoring plan;
 - b. a sufficient number of individuals in an appropriate metapopulation structure, maintained for at least 5 consecutive years. The number of individuals shall be at least 3,000 first or second brood adults in the final year of evaluation and in 4 of the 5 years overall. In all years, the number of adults shall be greater than 1,500 in one of either the first or second brood. In some circumstances the 3,000 level may be too high or too low (refer to Appendix E of the Recovery Plan); and
 - c. connectivity between subpopulations so that the average nearest-neighbor distance between subpopulations is no more than 1 kilometer (0.62 miles), and the

³ Defining characteristics of populations addresses population resiliency.

maximum distance between subpopulations is no greater than 2 kilometers (1.24 miles). In some cases the 1 kilometer dispersal distance may be too far.

3. Each LP shall have in addition to Criterion 2:
 - a. a larger areal extent and more suitable habitat than required for a minimum VP (~640 acres of suitable habitat within a 10 square-mile area);
 - b. a more robust metapopulation structure with larger numbers of individuals than a VP, specifically:
 - i. connectivity between subpopulations so that the average nearest-neighbor distance between subpopulations is no more than 1 kilometer (0.62 miles), and the maximum distance between subpopulations is no greater than 2 kilometers (1.24 miles).
 - ii. at least 6,000 adult butterflies maintained for at least 5 consecutive years. At least 6,000 first or second brood adults shall be present in the final year of evaluation and in 4 of the 5 years overall;
 - b. reduced monitoring and management requirements compared to those required for a VP.

Delisting will be considered when a minimum of 29 metapopulations (13 VP and 16 LP) have been established within at least 13 recovery units and are being managed consistent with the plan. The remainder of criteria for delisting are the same with the addition that each viable population shall be demonstrably self-reproducing, shall be maintained at or above minimum allowable population sizes, and shall be managed and monitored under the specific management and monitoring plans for at least 10 consecutive years.

The primary actions to address these criteria include protecting and managing Karner blue butterflies and their habitat, monitoring populations, implementing translocations where appropriate, developing and implementing outreach and education, and conducting priority research.

Now that we have described the species basic needs, we can assess its current condition. At the time of listing, the Karner blue butterfly occurred in eight states and was considered extirpated in Iowa, Pennsylvania, Massachusetts, and Maine, as well as the province of Ontario. As of November 2018, Karner blue butterflies are known to occur in five states and are considered extirpated in Illinois, Indiana, and Minnesota (Service unpublished data). In Indiana, the last observation was in 2014 and only two individuals were found. In Illinois, very low numbers of Karner blue butterflies were observed only twice (in 1992 and 2001) at one site and not seen since. In Minnesota, in 2011 no Karner blue butterflies were found for the first time at that state's only known site, and have not been recorded since. Despite this, the rangewide distribution of Karner blue butterflies has not changed much since the species was listed with populations spread from New Hampshire to Wisconsin.

The distribution of Karner blue butterflies within each extant state has also generally remained the same. An exception is in Michigan where the range and number of Karner blue butterfly occurrences have increased since listing (Service 2012). In addition, in New York, Karner blue butterflies are no longer known from Schenectady County due to the loss of one small, isolated occurrence (Service 2012). However, habitat has been restored and expanded in Albany and Saratoga Counties.

Between 2017 and 2018, populations are increasing in some areas (e.g., Michigan, Albany Pine Bush in New York) while populations in others (e.g., Ohio, New Hampshire) seem stable and others (e.g., Wisconsin) are demonstrating a decline (Service unpublished data). While overall abundance declined in Wisconsin in 2018, estimated abundance from distance-sampling sites was still approximately 32,000 butterflies (Service unpublished data) and the number of populations has increased since listing (Service 2012). The primary factors influencing the status of the species include loss of habitat due to natural succession, lack of management, invasive species, and commercial, industrial, and residential development. These threats persist in all states. Impacts related to climate change also appear to be starting with the presence of third brood butterflies noted in most states. These butterflies have been smaller in size with less capacity for eggs than larger butterflies. In summary, as a whole, the rangewide status of the species appears to be stable (with some populations improving and others declining) and the Service recommended maintaining the current classification as an endangered species in its last 5-year review (Service 2012). For a more detailed account of the species description, life history, population dynamics, threats, and conservation needs, refer to <https://ecos.fws.gov/ecp0/profile/speciesProfile?slid=6656>.

Status of the Species Within Glacial Lake Albany Recovery Unit

One of the Karner blue butterfly recovery units is in New York and includes the area between Glens Falls and the Albany Pine Bush and is named the Glacial Lake Albany Recovery Unit (GLARU) (Figure 3). Two additional areas are considered “potential recovery units” in central and western New York (Rome Sand Plains and Tonawanda Potential Recovery Units). There are no recovery criteria for “potential recovery units” as they are not required for meeting the overall conservation needs for the species. However, if a VP is established in either “potential recovery unit”, it can count toward one VP in the GLARU. There are no extant Karner blue butterfly sites in either “potential recovery unit” in New York. Within the GLARU, three metapopulation (VP) areas are recommended under criterion #1. The Albany Pine Bush, Saratoga West, Queensbury, and Saratoga Sandplains have been described as potential locations for VPs within the GLARU. Only two of these metapopulations have met any of the criteria to be considered a VP to date (see below).

Within the GLARU, there are approximately 29 Karner blue butterfly sub-populations spread across the 4 metapopulations (Service 2012). Two have stable to declining numbers of Karner blue butterflies (Saratoga West and Queensbury and two are considered stable to improving (Albany Pine Bush and Saratoga Sandplains). The Airport is located within the Saratoga West metapopulation in which there are few sub-populations (9) with poor connectivity to each other and with little management except for at the Airport and a state park (Saratoga Spa State Park). The Queensbury population has a similar number of small sub-populations focused along power line rights-of-way. National Grid has developed a habitat conservation plan and received an incidental take permit to address impacts from their operations and management that includes habitat restoration and management within a segment of this population as well as other locations in the GLARU.

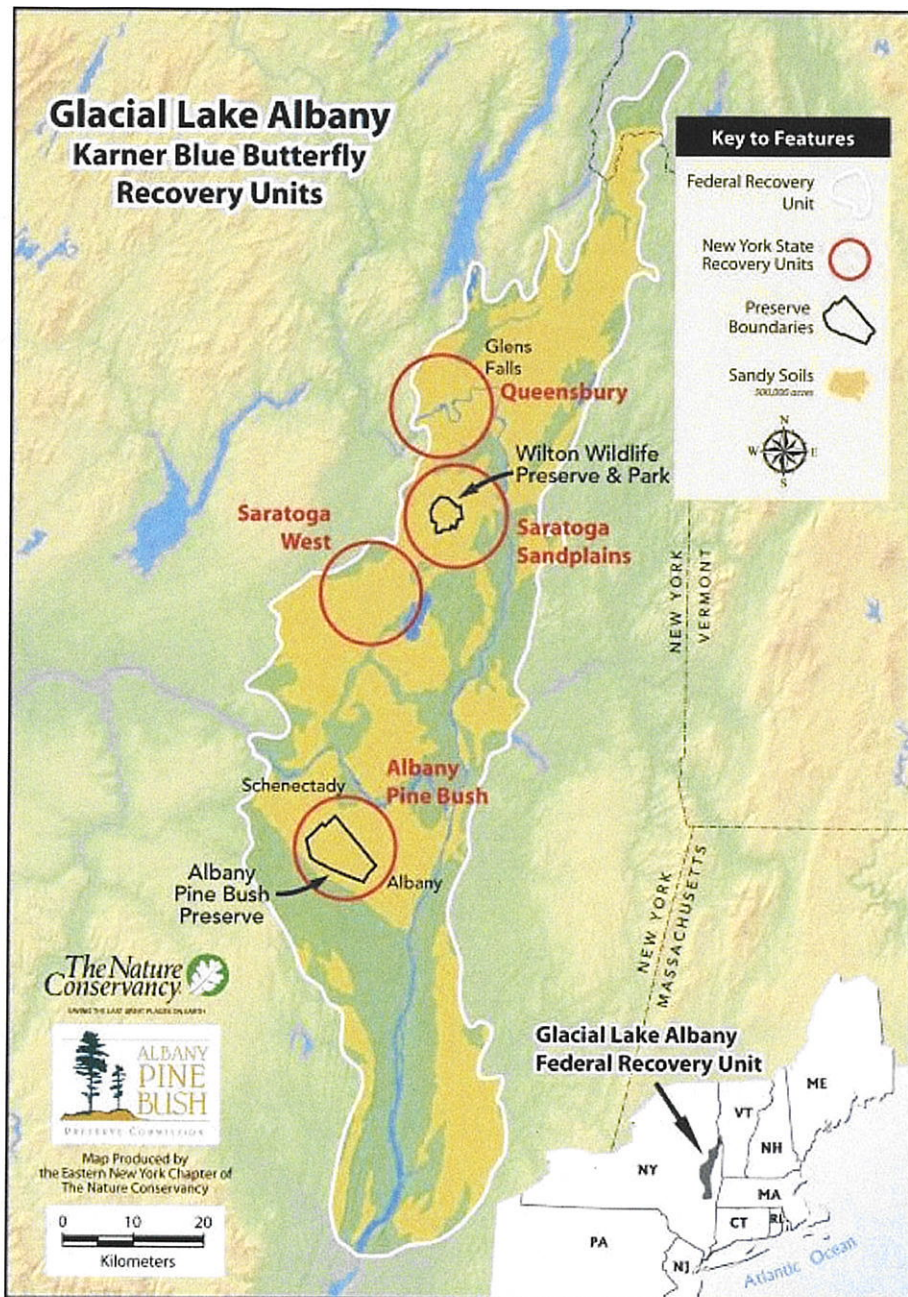


Figure 3. Karner Blue Butterfly Populations in the GLARU (APBPC).

At the time of the last 5-year review, the Saratoga Sandplains metapopulation supported the largest Karner blue butterfly population in the eastern United States (>20,000 butterflies) (Service 2012). Habitat has increased significantly at this site, from 5 acres to approximately 140 acres over the past 15 years. Restoration work, consisting of land acquisition, tree clearing, planting, and mowing resulted in a dramatic population increase from less than 1,000 Karner blue butterflies in 2003 to more than 20,000 butterflies in 2010 (Service 2012). Peak counts associated with distance sampling estimates continued to increase in 2011-2016; however, 2017 counts were down at the few sites surveyed (NYSDEC 2018). Population estimates derived from these counts are not yet available but they are similar or higher than 2011-2013 counts.

The Albany Pine Bush metapopulation has also increased in recent years. In 2017, the Albany Pine Bush Preserve Commission (APBPC) estimated that the first flight supported 6,170 adults and the second flight contained 11,780 butterflies (Gifford 2018). In 2018, the first flight exceeded 5,000 adults and the second flight exceeded 10,000 butterflies with one third of sites monitored (N. Gifford, pers. comm.). The most recent survey year marks the sixth consecutive year that the Albany Pine Bush metapopulation exceeded the Recovery Plan population target (3,000 adults in either the first or second brood), and the fourth time it exceeded the population target set by APBPC (7,640 adults) (Gifford 2018, N. Gifford, pers. comm.) (Figure 4). There are currently over 700 acres of potentially occupied lupine habitat within Albany Pine Bush (N. Gifford, pers. comm.).

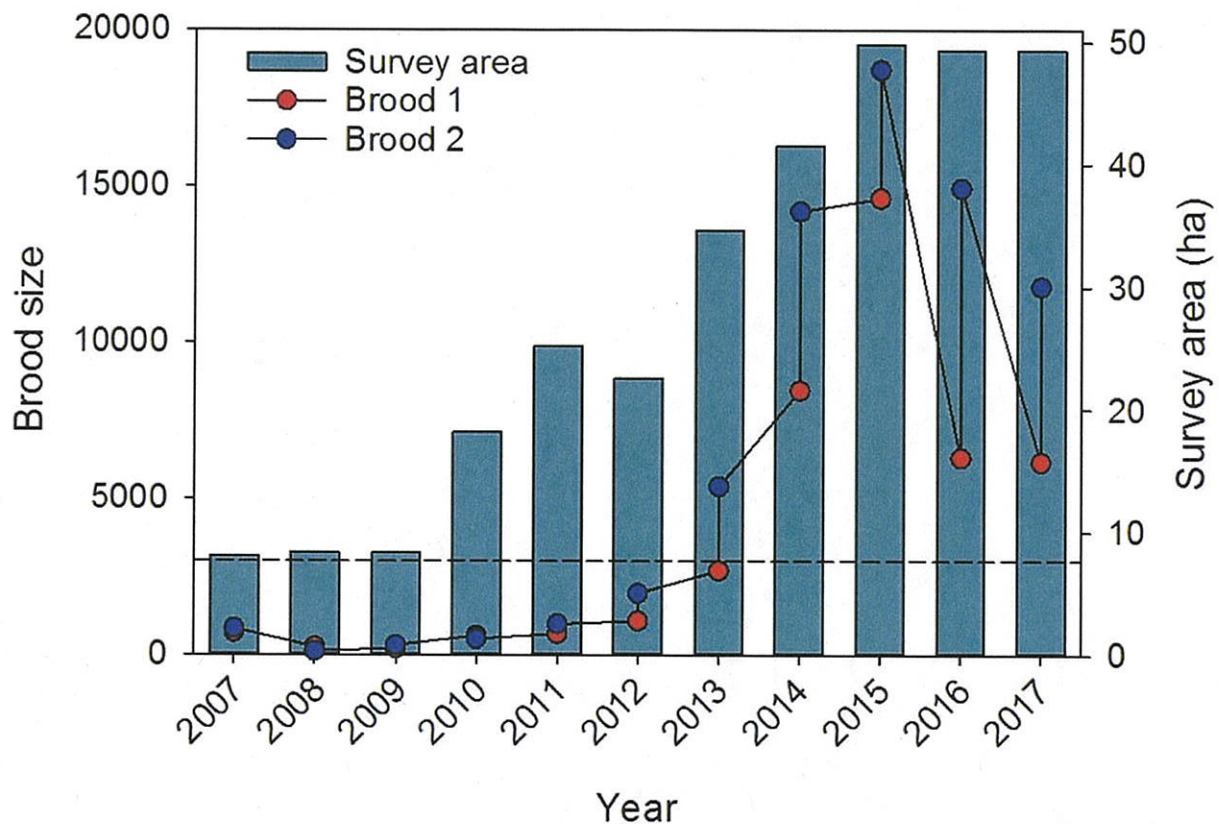


Figure 4. Brood size estimates of the Karner blue butterfly metapopulation at the Albany Pine Bush recovery unit, 2007-2017 (from Gifford 2018).

In summary, the status of the Karner blue butterfly is improving in the GLARU with these improvements focused in the Albany Pine Bush and Saratoga Sandplains populations.

STATUS OF CRITICAL HABITAT

No critical habitat has been designated for this species.

ENVIRONMENTAL BASELINE

Regulations implementing the ESA (50 CFR 402.02) define the environmental baseline as the past and present impacts of all federal, state, or private actions and other human activities in the Action Area. Also included in the environmental baseline are the anticipated and/or ongoing impacts of all proposed federal projects in the Action Area that have undergone section 7 consultation, and the impacts of state and private actions which are contemporaneous with the consultation in progress.

Status of the Species Within the Action Area

As noted above, there are approximately 29 Karner blue butterfly sub-populations in New York spread across the 4 populations. The Airport is located within the Saratoga West population and the mitigation areas are located within the Saratoga Sandplains population.

Saratoga West

In addition to the Airport, eight other sub-populations are located in the Saratoga West population (Geyser Road Dune Cut, Geyser Road Railroad, Geyser Road/Rowland Street, Rowland Street PROW, Rowland Street West, Hutchins Road, Route 145 Sandpit, Saratoga Spa State Park). The closest two sub-populations to the Airport are powerlines approximately 250-300 meters (328 yards) away, with the remaining sub-populations located much farther away. While the Airport is approximately 293 acres in size, most sub-populations in Saratoga West are small (4-6 acres). Occupied Karner blue butterfly sites in this population are considered highly fragmented due to development, and in some cases by wetlands, with power line corridors providing some of the only available connectivity between patches of suitable habitat.

Karner blue butterflies at the Airport have been monitored by the NYSDEC for many years. At the time of listing, the Airport was considered one of the most important sub-populations for Karner blue butterflies in New York, simply based on number of observed adult butterflies. However, the Airport has experienced reduced numbers of Karner blue butterflies since then, likely due to its habitat. The Airport site is homogenous in terms of habitat characteristics (very open with little to no diversity in structure or topography) and does not have many of the elements currently considered important for long-term population viability (e.g., overstory cover, shade heterogeneity) (Bried et al. 2006, Bried et al. 2014). This homogeneity decreases the Karner blue butterflies' ability to survive weather events such as frosts or high winds. In addition, the nectar is poorly distributed throughout the site. Nearby Karner blue butterfly patches have an uncertain future given their lack of management. In addition, we have limited opportunities to create new habitat patches near the Airport at this time due to Airport operational needs.

In the past, the NYSDEC conducted transect surveys at the Airport each year. The counts from these transects do not represent the true population size; rather, they are an index to compare relative counts from year to year. Peak second brood counts from transects ranged from a high of 938 in 2004 to a low of 29 (Figure 5).

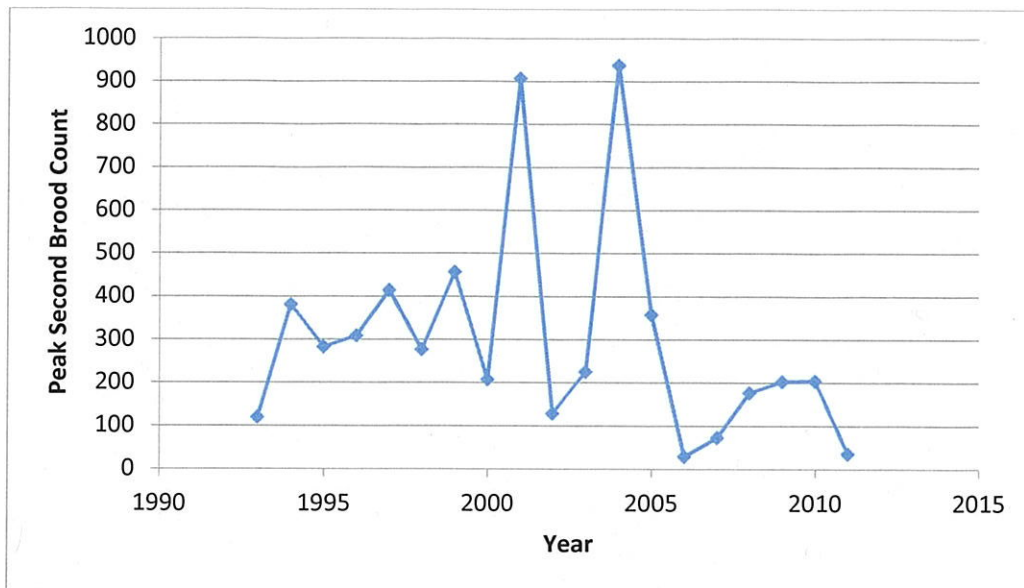


Figure 5. Peak second brood Karner blue butterfly transect counts at the Saratoga County Airport.

Distance sampling methods were conducted in 2007-2016 to better estimate population size. Peak second brood counts during efforts between 2011 and 2016 ranged from 2 in 2013 to 140 in 2014 (Figure 6). While not exactly comparable with the transect counts, they remain far below the high count in 2004 and have been hovering around less than 150 for more than 12 years.

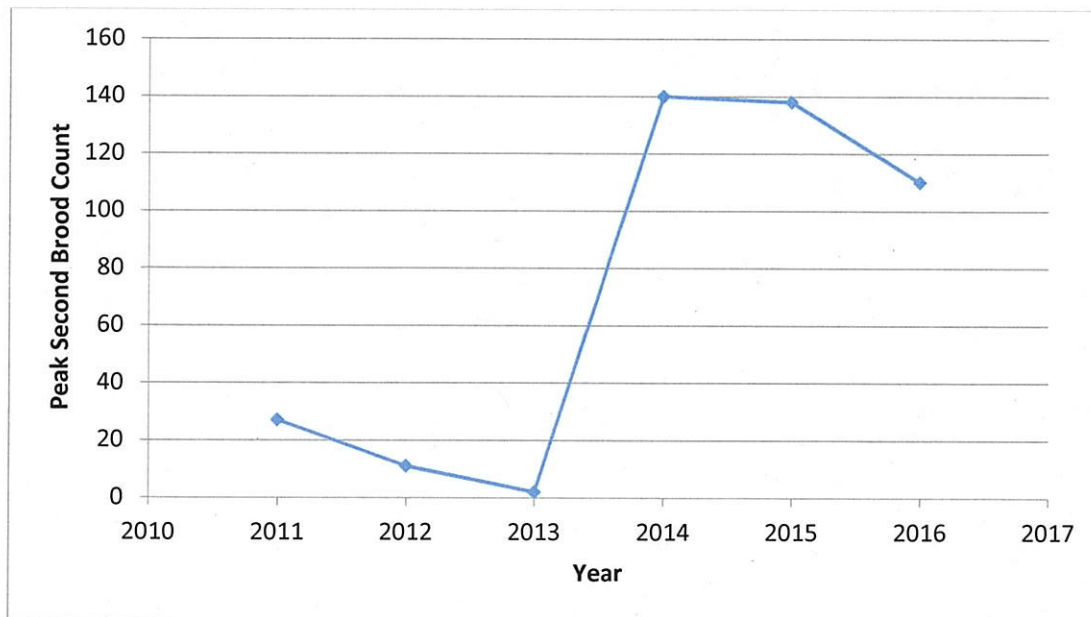


Figure 6. Peak second brood Karner blue butterfly counts associated with distance sampling at the Saratoga County Airport.

No counts were conducted in 2017 or 2018, but NYSDEC plans to conduct counts in 2019 (K. O'Brien, pers. comm.). Due to the crash in numbers observed in 2006, increasing

development pressures at the airport, and the low probability of increasing the land base to support additional populations, the NYSDEC began to reevaluate the likelihood of achieving a VP in Saratoga West in 2015 (NYSDEC 2016).

Saratoga Sandplains

The proposed habitat mitigation areas are located approximately 9 miles northeast of the Airport within the Saratoga Sandplains metapopulation (Figure 3). The acreage of restored habitat and numbers of observed adult Karner blue butterflies in the Saratoga Sandplains has been steadily increasing over the past approximately 15 years. As discussed above, habitat restoration efforts have been underway since the early 2000s to increase Karner blue butterfly habitat from 5 acres to over approximately 140 acres. Peak counts associated with distance sampling estimates continued to increase in 2011-2016 (NYSDEC 2018) (Figure 7).

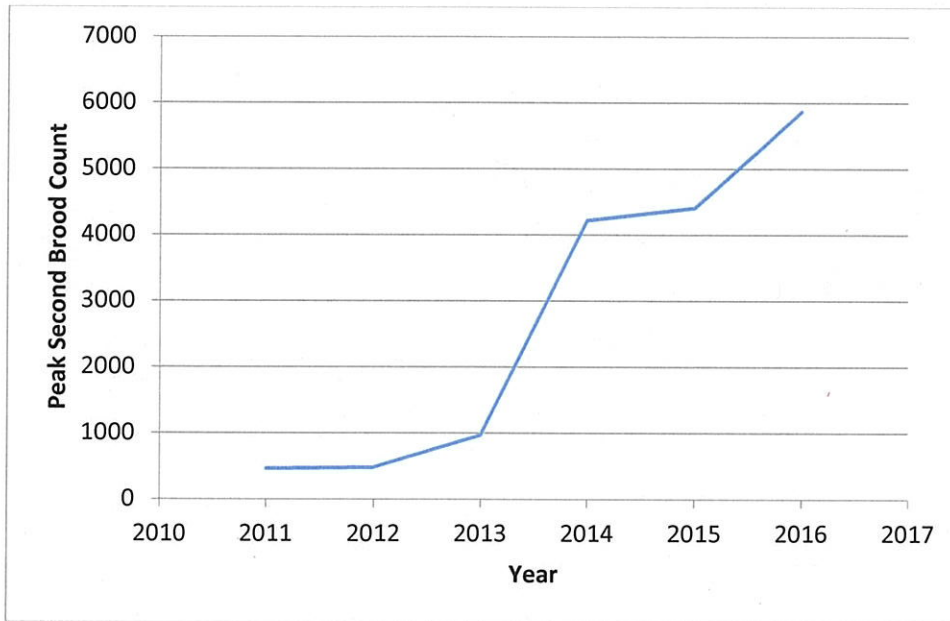


Figure 7. Peak second brood Karner blue butterfly counts associated with distance sampling at Saratoga Sandplains sites.

Summary

In summary, the status of the Karner blue butterfly is improving within one population and declining within another within the Action Area. The overall assessment of the Action Area is that the status of the Karner blue butterfly is improving with significant gains towards meeting recovery needs in the Saratoga Sandplains.

EFFECTS OF THE ACTION

Direct effects are the direct or immediate effects of the project on the species, its habitat, or designated/proposed critical habitat. Indirect effects are defined as those that are caused by the

proposed action and are later in time, but still are reasonably certain to occur (50 CFR 402.02). An interrelated activity is an activity that is part of the proposed action and depends on the proposed action for its justification. An interdependent activity is an activity that has no independent utility apart from the action under consultation. Direct and indirect effects of the proposed action along with the effects of interrelated/interdependent activities are all considered together as the “effects of the action.”

The potential effects of the proposed action are summarized in Table 2 and further described in Appendix B. Two components are not anticipated to result in any adverse impacts (Land and/or Easement Acquisition Land Use Control and Vegetation Obstruction Removal and Perimeter Fence Replacement Phase 1) as they are outside of Karner blue butterfly habitat and will not be further discussed in this Opinion. All other components of the Project have been identified as having the potential to affect the Karner blue butterfly (Appendix B) as a result of the initial disturbance and permanent removal of occupied and potential habitat or the temporary disturbance of occupied and potential habitat. Since some life stages of the Karner blue butterfly (eggs, larvae, pupae, or adults) are present year-round in occupied habitat, those activities affecting occupied habitat, either permanently or temporarily, will result in the taking (kill) of Karner blue butterfly eggs, larvae, pupae, or adults, depending on the time of year of the disturbance to the habitat. In addition, for activities that result in permanent loss of habitat, or in the case of unrestricted mowing, continually make the habitat unavailable to Karner blue butterflies, harm of Karner blue butterflies is anticipated. Because Karner blue butterflies are tied to specific habitat requirements, the removal of those habitat features results in a loss of feeding, breeding, and sheltering habitat. The core lupine areas at the Airport will be impacted by the Project, pushing any surviving butterflies into suboptimal habitat. Limited lupine patches will result in fewer areas to successfully find mates. Fewer lupine patches will provide reduced resources for egg-laying and larval feeding. Ongoing mowing of the non-exempt areas (most of the Airport) will continue. This mowing is anticipated to provide an overall benefit to the species by helping to maintain the suitability of the habitat at the site which otherwise would become unsuitable for lupine and Karner blue butterflies over time, as a result of vegetation succession. Pursuant to the HMPP, mowing will be done once per year between October 15 and December 31 and mowing blades will be set to between 6 and 8 inches high to minimize the adverse effects. Karner blue butterfly eggs will be the only life stage present at that time and not all eggs are anticipated to be impacted.

Off-airport habitat mitigation will benefit Karner blue butterflies by expanding suitable habitat patches in proximity to existing habitat. However, once butterflies are repatriated to restored lands by natural expansion from nearby occurrences, management activities required to maintain suitable habitat may result in some take of individual butterflies (egg, larvae, pupae, or adult) or temporary short-term degradation of habitat. Conservation measures (e.g., time-of-year restrictions) to minimize potentially negative effects of any management activities are or will be included as part of the mitigation plans that will be developed with a future FAA grant. Although management activities will still cause unavoidable take of eggs in occupied habitat, the overall benefits of restoring and maintaining suitable habitat conditions far outweigh the adverse effects.

In addition, these short term effects are essential to the long-term survival of the species. Furthermore, an expanded habitat base and increased populations facilitated by these

management activities on the newly restored lands are fundamental to increasing the overall demographic security of this disturbance-dependent species. The increased distribution of butterfly populations is also anticipated to decrease the likelihood that management activities in any one area will impact many individual butterflies.

Table 2. Summary of Project Component Impacts to Karner Blue Butterflies.

Construction/Project Description	Off-site Habitat Creation (Acres)	“Permanent” Impact (Acres)	Impact (recurring but overall beneficial)
Land and/or Easement Acquisition Land Use Control and Vegetation Obstruction Removal (outside of KBB habitat)	---	---	
Perimeter Fence Replacement Phase 1 (outside of KBB habitat)	---	---	
Perimeter Fence Replacement Phase 2	---	3.64	
Partial-Parallel Taxiway A	---	4.68	
Mowing Plan (All TSAs & RW 23 RSA)	---	36	
Mowing Plan (RW 14-32 & RW 5 RSAs)	---	31.47	
Taxiway C Improvements	---	0.81	
Glider Staging/Run-Up Area	---	0.38	
Habitat Mitigation Construction Phase 1 (South Site)	24	---	
Habitat Mitigation Construction Phase 2 (North Site)	74	---	
Habitat Mitigation Construction Phase 3 (East Site)	82	---	
Total – New Impacts	180	76.98	
Mowing Plan – ongoing mowing of non-Exempt Areas			~222

CUMULATIVE EFFECTS

Cumulative effects are those “effects of future State or private activities, not involving federal activities, that are reasonably certain to occur within the Action Area” considered in this Opinion (50 CFR 402.02).

The Service is not aware of any future state, tribal, local, or private actions that are reasonably certain to occur within the Action Area at this time; therefore, no cumulative effects are anticipated.

JEOPARDY AND ADVERSE MODIFICATION ANALYSIS

Section 7(a)(2) of the ESA requires that federal agencies ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of designated critical habitat.

Jeopardy Analysis Framework

“Jeopardize the continued existence of” means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species (50 CFR 402.02). The following analysis relies on 4 components: (1) Status of the Species, (2) Environmental Baseline, (3) Effects of the Action, and (4) Cumulative Effects. The jeopardy analysis in this Opinion emphasizes the rangewide survival and recovery needs of the listed species and the role of the Action Area in providing for those needs. It is within this context that we evaluate the significance of the proposed federal action, taken together with cumulative effects, for purposes of making the jeopardy determination.

Analysis for Jeopardy/Adverse Modification

Impacts to Individuals – The proposed action includes the permanent (or equivalent to permanent) removal of approximately 77 acres of occupied Karner blue butterfly habitat. There are two components of the Project that are anticipated to result in overall beneficial effects with periodic, unavoidable adverse impacts. First, during annual mowing of 222 acres of the non-Exempt Area of the Airport; and second, during future management of 180 acres of off-site restored habitat. As discussed in the Effects of the Action, potential effects of the action include effects to the Karner blue butterfly present within the Action Area year-round. Effects generally include death from crushing of individual eggs, larvae, pupae, or adults by equipment and harm to any surviving individuals from removal of habitat. In summary, we anticipate impacts to individual Karner blue butterflies in either their annual survival or reproductive rates.

Impacts to Populations – As we have concluded that individual Karner blue butterflies are likely to experience impacts to their annual survival or reproductive rates, we need to assess the aggregated consequences of the anticipated impacts on the population to which these individuals belong.

Impacts to Saratoga West

As stated above, the Airport is the most significant sub-population within the Saratoga West metapopulation and the rest of the sub-populations are small with limited connectivity. The Project is anticipated to remove or otherwise make unavailable 77 acres of core habitat at the Airport, resulting in a significant reduction in the likelihood of long-term persistence of the

Airport sub-population. The Karner blue butterfly population size is anticipated to decline with smaller numbers of butterflies potentially persisting outside of the Project impact areas (see Table 2). Additional habitat will remain available within approximately 222 acres, but lupine and nectar are sparse in this area. Given the lack of habitat heterogeneity at the Airport and declines in population size since the species was listed, this sub-population's resilience was already fairly low. The additional impacts associated with the Project may result in extirpation over time. Regardless of whether the Project may result in increased risk of extirpation in the future, the likelihood that the Saratoga West metapopulation will contribute to the overall conservation and recovery of the species is low.

Impacts to Saratoga Sandplains

The proposed 180 acres of habitat restoration will occur on existing County lands in the towns of Wilton and Northumberland. The County is an important partner of the Wilton Wildlife Preserve and Park⁴, a local organization whose mission is "to conserve ecological systems and natural settings while providing opportunities for environmental education and outdoor recreation." The sites selected for restoration and management will expand upon the existing 140 acres of available habitat and are intended to meet the acreage goal of suitable habitat for a VP⁵ of 320 acres. By restoring and managing additional habitat, the likelihood that the Saratoga Sandplains metapopulation will contribute to the overall conservation and recovery of the species is high. Once habitat is restored, unavoidable impacts to individual butterflies will occur during periodic management and monitoring activities.

Impacts to Species – As we have concluded that a population of the Karner blue butterfly is likely to experience reductions in fitness, we need to assess the aggregated consequences of the anticipated reductions of the exposed population on the species as a whole.

As we have concluded that one population of the Karner blue butterfly is likely to experience reduction in fitness, we need to assess the aggregated consequences of the anticipated reductions of the exposed population on the species as a whole. To understand the consequences of population-level effects at the species level, we need to understand the RND needs of the species. As discussed in the Status of the Species, to meet the goal of recovery of the Karner blue butterfly, at least 29 healthy metapopulations within 13 recovery units are recommended across the range of the species (Service 2003). Because recovery units have been designated for the Karner blue butterfly, we first will assess the consequences of these impacts at the recovery unit level. As discussed in the Status of the Species, at least 3 healthy metapopulations are recommended within the GLARU (Service 2003). Prior to this Project, the GLARU status was considered increasing. The Albany Pine Bush metapopulation is on track to meet LP targets rather than VP targets of the Recovery Plan. The Saratoga Sandplains metapopulation has met numerical targets for a LP for several years but does not yet have sufficient habitat to spread the risk of stochastic events across multiple sub-populations. The Project is anticipated to impact two of the GLARU metapopulations, resulting in a continued decline of the Saratoga West

⁴Information available at <http://www.wiltonpreserve.org/> accessed November 1, 2018.

⁵ No specific acreage goal is stated in the Recovery Plan. However, a LP has a minimum goal of 6,000 adult butterflies and 640 acres. Therefore, with a VP goal of 3,000 adult butterflies, we are targeting at least 320 acres of suitable habitat for a VP.

metapopulation but a significant increase in the Saratoga Sandplains metapopulation by bolstering habitat conditions to levels anticipated to be sufficient for a VP.

The concept of recommending at least three metapopulations within the GLARU was intended to help improve redundancy (number of healthy metapopulations) for the Karner blue butterfly. Having multiple metapopulations spread across the range reduces the risk that the species may be adversely affected by catastrophic events. The Project will reduce the likelihood that the Saratoga West population will be healthy over time. An ultimate loss of the Saratoga West metapopulation would reduce the number of reproducing metapopulations of Karner blue butterflies across the range but it would not reduce the distribution in New York, GLARU, or the species as a whole.

The Saratoga West metapopulation does not represent any unique behavioral, genetic, or morphological variation (representation) that we are aware of. In fact, subpopulations within this metapopulation are only 3.5 miles from the nearest Saratoga Sandplains subpopulations. These two metapopulations include a similar latitudinal gradient experiencing similar weather events and potential climate shifts over time. The continued reduction in health in the Saratoga West metapopulation has been observed over the past 12 years. There are limited opportunities to change this trajectory without significant changes to management at the Airport, which is counter to the proposed measures recommended for increased public safety.

Focusing efforts on the Saratoga Sandplains metapopulation will help ensure its long term health and will greatly increase the likelihood of meeting recovery goals for the species. In addition, the Albany Pine Bush metapopulation has exceeded population targets for a LP. Overall, the GLARU is anticipated to have at least two healthy Karner blue butterfly metapopulations (one VP and one LP) after this Project is implemented.

CONCLUSION

We considered the current overall stable rangewide status of the Karner blue butterfly (improving in some metapopulations and declining in others), the improving status of the GLARU, and the declining condition of the species within the Action Area (environmental baseline). We then assessed the effects of the proposed action and the potential for cumulative effects in the Action Area on individuals, populations, and the species as a whole. As stated in the Jeopardy Analysis, we do not anticipate any reductions in the overall RND of the Karner blue butterfly. It is the Service's Opinion that the Project, as proposed, is not likely to jeopardize the continued existence of the Karner blue butterfly.

INCIDENTAL TAKE STATEMENT

Section 9 of the ESA and federal regulation pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without a special exemption. Take is defined in section 3 of the ESA as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns including breeding, feeding, or sheltering (50 CFR § 17.3). Incidental take is defined as take that is incidental to, and not the

purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the ESA provided that such taking is in compliance with the terms and conditions of this incidental take statement (ITS).

The measures described below are nondiscretionary, and must be undertaken by the FAA so that they become binding conditions of any grant or permit issued to the County, as appropriate, for the exemption in section 7(o)(2) to apply. The FAA has a continuing duty to regulate the activity covered by this ITS. If the FAA: (1) fails to assume and implement the terms and conditions or (2) fails to require the County to adhere to the terms and conditions of the ITS through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse. To monitor the impact of incidental take, the FAA or County must report the progress of the action and its impact on the species to the Service as specified in the ITS [50 CFR 402.14(i)(3)].

AMOUNT OR EXTENT OF TAKE ANTICIPATED

50 CFR 402.14(i)(1)(i) states that surrogates may be used to express the amount or extent of anticipated take provided the Opinion or ITS: (1) describes the causal link between the surrogate and take of the listed species; (2) describes why it is not practical to express the amount of anticipated take or to monitor take-related impacts in terms of individuals of the listed species; and (3) sets a clear standard for determining when the amount or extent of the taking has been exceeded.

The following ITS will use acres of habitat as a surrogate because determining the exact numerical limits on the amount of incidental take are not practical. In this situation, acres of habitat impacted will serve as a reasonable and appropriate surrogate for incidental take of the Karner blue butterfly because any activities within suitable habitat will directly and indirectly cause the anticipated incidental take within the bounds of the identified acres of habitat.

The ESA does not require use of precise, empirical scientific data to make decisions, but instead requires use of the best available scientific and commercial data to make determinations within specified statutory time frames. Therefore, when lacking empirical data, the Service must make science-based assumptions in its decision-making process. This is often the case when the Service must complete its effects analysis, jeopardy and adverse modification determinations, and ITS based on data that is incomplete, and lacks site-specific, empirical data.

For the Karner blue butterfly, it is not practical to express the amount of anticipated take in terms of individuals because there is no density or abundance estimate for the portion of the Action Area where take is anticipated. As a result, predicting the precise number of individuals that will be taken is not possible. Additionally, it is not practical to monitor take-related impacts in terms of individual Karner blue butterflies for the following reasons: 1) the Karner blue butterfly has a small body size making it difficult to locate, which makes encountering dead or injured individuals unlikely; 2) the Karner blue butterfly has a delicate anatomical structure making it unlikely to actually relocate a dead specimen; and 3) losses may be masked by annual fluctuations in numbers.

However, because the location, timing, and acreage of habitat impacts can be readily identified, measured, and monitored, this surrogate is the most reasonable means for detecting when take may be exceeded. While working outside of the evaluated parameters (e.g., work zones, seasonal or timing restrictions, and specified acreages) does not automatically mean that take has been exceeded, these events provide a clear trigger that requires the FAA to reinstate consultation, during which the Service will determine whether incidental take has been exceeded since detection of individuals taken, as described above, is not practical.

The anticipated take is described in Table 2 below.

Table 2. Amount and type of anticipated incidental take of Karner blue butterfly.

Amount of Take Anticipated (Surrogate)	Life Stage when Take is Anticipated	Type of Take	Take is Anticipated as a Result of
76.98 acres	All	Harm	Loss of habitat at Airport (permanent or recurring disturbance rendering habitat lost).
76.98 acres (same location as above)	All	Kill	Crushing during construction activities at Airport.
222 acres in non-Exempt Area	Eggs	Kill	Crushing due to annual mowing at Airport (between October 15 and December 31)
180 acres	All	Kill	Crushing during restoration activities on Off-Airport mitigation lands after habitat is restored and Karner blue butterflies begin using the habitat.

REASONABLE AND PRUDENT MEASURES

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize take of Karner blue butterflies:

1. Ensure success of mitigation restoration prior to initiation of any component of the revised mowing plan.
2. Ensure permanent management and stewardship of the mitigation sites.

TERMS AND CONDITIONS

In order to be exempt from the prohibitions of section 9 of the ESA, the FAA must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline required reporting/monitoring requirements. These terms and conditions are nondiscretionary.

1. Provide a draft Mitigation Management and Protection Plan (MMPP) to Service and NYSDEC for review and approval **no later than 6 months following** the Off-Airport Mitigation (design) FAA grant approval.
2. The MMPP shall include details on:
 - a. proposed restoration strategy
 - b. timing of all aspects of initial restoration (e.g., barriers to ATVs, clearing, grubbing, planting, signage)
 - c. who will do each aspect of restoration (County or contractor)
 - d. proposed seed mix and rate
 - e. lupine seed collection plan – location, percentage collected at any given site so as not to impact a Karner blue butterfly or frosted elfin population present, measures for avoiding larvae on pods – if submitting a partial plan for seed collection, it will be provided by April 30, 2019
 - f. nectar/grass seed sources – if collecting locally, provide location, percentage collected at any given site so as not to impact a Karner blue butterfly or frosted elfin population present, if submitting a partial plan for seed purchase and/or collection, it will be provided by April 30, 2019
 - g. habitat monitoring
 - success criteria for restoration
 - i. who will conduct (consultant with Karner blue butterfly knowledge and NYSDEC endangered species collector’s permit)
 - ii. timing (e.g., annual for first 3 years)
 - h. butterfly monitoring
 - i. who will conduct (consultant with Karner blue butterfly knowledge and NYSDEC endangered species collector’s permit)
 - ii. methods
 - iii. timing (e.g., every 2 years)
 - i. future maintenance
 - i. who will conduct (e.g., County staff)
 - ii. timing (e.g., routine cycle for mowing, herbicide, etc.)
 - j. permanent protection
 - i. will County retain ownership
 - ii. plans for ATV or other trespass management and enforcement
3. Provide revised Table 8 from the BA to Service and NYSDEC no later than 6 months following the Off-Airport Mitigation (design) FAA grant approval, detailing conceptual proposed Project timing and duration in light of lag time for restoration success.
4. Ensure all mitigation sites meet success criteria (Bried et al. 2014) (“good” or “very good”) prior to initiation of any component of the revised mowing plan. It generally takes up to 3 years for sites to have wild lupine, nectar, and grasses, and for Karner blue butterfly colonization.

MONITORING AND REPORTING REQUIREMENTS

1. The FAA or the County (if designated by the FAA) shall notify the Service and the NYSDEC, in writing, regarding the projected and actual start dates, progress, and completion, to the extent known, of Project activities and verify that the location, timing,

and acreage of Karner blue butterfly habitat authorized for activities was not exceeded, and all conservation measures were followed, in a report, by **December 31st annually**.

2. The FAA or the County (if designated by the FAA) shall provide the Service and the NYSDEC, in writing, habitat and Karner blue butterfly monitoring reports in accordance with MMPP (see above).
3. The FAA or the County (if designated by the FAA) shall notify the Service and the NYSDEC of any unauthorized activities (regardless of who conducted said activities) or emergencies resulting in any adverse impacts not described in the Master Plan and subsequent documents and addressed in this BO. This notification shall be made within 48 hours or sooner, if possible.
4. The FAA shall notify the Service, in writing, **within 60 days** of the date of this BO, whether the FAA or the County shall be responsible for the above reporting requirements.
5. The contact for these reporting requirements is as follows:

David A. Stilwell, Field Supervisor
New York Field Office
U.S. Fish and Wildlife Service
3817 Luker Road
Cortland, NY 13045
Attn: Robyn Niver
robyn_niver@fws.gov
(607) 753-9334

Care must be taken in handling any dead specimens of proposed or listed species to preserve biological material in the best possible state. In conjunction with the preservation of any dead specimens, the finder has the responsibility to ensure that evidence intrinsic to determining the cause of death of the specimen is not unnecessarily disturbed. The finding of dead specimens does not imply enforcement proceedings pursuant to the ESA. The reporting of dead specimens is required to enable the Service to determine if take is reached or exceeded and to ensure that the terms and conditions are appropriate and effective. Upon locating a dead specimen, notify the Service's New York Field Office.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the ESA directs federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

The Service has identified the following actions that, if undertaken by the FAA and/or County, would further the conservation and assist in the recovery of the Karner blue butterfly.

1. The FAA and the County should continue to coordinate with the Service and the NYSDEC to promote the conservation and recovery of the Karner blue butterfly within the County.
2. The County should support incorporation of Karner blue butterfly conservation measures in planning, acquisition, and development review throughout the County.

For the Service to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

REINITIATION NOTICE

This concludes formal consultation on the actions outlined in the initiation request. As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this Opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this Opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

If you have any questions regarding this Opinion, or our shared responsibilities under the ESA, please contact Ms. Robyn Niver, of this office, at 607-299-0620.

Sincerely,



for

David A. Stilwell
Field Supervisor

Enclosures

LITERATURE CITED

- Bried, J., T. Tear, R. Shirer, C. Zimmerman, and N. Gifford. 2006. Monitoring Habitat Quality for Karner Blue Butterfly Recovery in Glacial Lake Albany, New York. The Nature Conservancy Eastern New York Chapter, Albany, NY.
- Bried, J., T. Tear, R. Shirer, C. Zimmerman, N. Gifford, S. Campbell, K. O'Brien. 2014. A Framework to Integrate Habitat Monitoring and Restoration with Endangered Insect Recovery. *Environmental Management* 54(6):1385-1398.
- Gifford, N.A. 2018. Fish and wildlife permit report: report of 2017 activities. Albany Pine Bush Preserve Commission, Albany, NY.
- Givnish, T.J., E.S. Menges, and D.F. Schweitzer. 1988. Minimum area requirements for long-term conservation of the Albany Pine Bush and Karner blue butterfly: an assessment. Unpublished report prepared by Malcolm Pirnie, Inc., for the City of Albany; Albany, New York. Typescript.
- Harrison, S., D. Murphy, and P. Ehrlich. 1988. Distribution of the bay checkerspot butterfly, *Euphydryas editha bayensis*: evidence for a metapopulation model. *The American Naturalist* 132: 360-382.
- McFarland-Johnson, Inc. 2018a. Biological assessment: master plan phase 1 projects, Saratoga County Airport, Town of Milton, Saratoga County, New York. McFarland-Johnson, Inc., Saratoga Springs, Saratoga County, New York.
- McFarland-Johnson, Inc. 2018b. Saratoga County Airport master plan phase 1 projects, Draft environmental assessment. McFarland-Johnson, Inc., Saratoga Springs, Saratoga County, New York.
- New York State Department of Environmental Conservation. 2016. Section 6 Progress Report and Evaluation E-6-R-1 January 1, 2015 – June 30, 2016. Albany, New York.
- New York State Department of Environmental Conservation. 2018. Section 6 Progress Report and Evaluation E-6-R-2 January 1, 2017 – December 31, 2017. Albany, New York.
- Schweitzer, D.F. 1989. Fact sheet for the Karner blue butterfly with special reference to New York. Unpublished report prepared for The Nature Conservancy, Albany, New York.
- Shaffer, M.L., L.H. Watchman, W.J. Snape, and I.K. Latchis. 2002. Population viability analysis and conservation policy. Pp. 123-142 *in* Population Viability Analysis, Beissinger, S.R. and D.R. McCullough, editors. University of Chicago Press, Chicago.
- Smith D.R., N.L. Allan, C.P. McGowan, J.A. Szymanski, S.R. Oetker, and H.M. Bell. 2018. Development of a species status assessment process for decisions under the U.S. Endangered Species Act. *Journal of Fish and Wildlife Management* 9(1):xx-xx; e1944-687X. doi:10.3996/052017-JFWM-041

U.S. Fish and Wildlife Service (Service). 2003. Final recovery plan for the Karner blue butterfly (*Lycaeides melissa samuelis*). Fort Snelling, MN.

U.S. Fish and Wildlife Service (Service). 2012. Karner blue butterfly (*Lycaeides melissa samuelis*) 5-year review: summary and evaluation. New Franken, WI.

Wolf, S., B. Hartl, C. Carroll, M.C. Neel, and D.N. Greenwald. 2015. Beyond PVA: Why recovery under the Endangered Species Act is more than population viability. *Bioscience* 65:200-207.

Appendix A. CONSULTATION HISTORY SINCE 2011 OPINION

- 8-18-11 Technical Advisory Committee Meeting for the Saratoga County Master Plan Update was held in Ballston Spa. Town, County, NYSDEC, FAA, McFarland-Johnson, Inc., (MJ) and glider clubs attended.
- 1-19-12 The Service attended a TAC Meeting by phone.
- 5-12-12 The Service attended a meeting.
- 1-8-13 The Service received annual update from County regarding 2012 activities covered under the 2011 Opinion.
- 3-8-13 The Service received invitation to April 11, 2013, TAC meeting and 3 additional meetings.
- 4-11-13 The Service attended TAC Meeting by phone.
- 9-30-13 The NYSDEC issued incidental take permit for variety of activities at the Airport.
- 10-29-13 The Service attended TAC Meeting by phone.
- 11-8-13 The Service, FAA, and MJ met in Cortland to discuss Karner blue butterflies.
- 12-31-13 The Service received annual update from County regarding 2013 activities covered under the 2011 Opinion.
- 10-30-14 The Service received the draft Master Plan Report.
- 2-6-15 The Service received annual update from County regarding 2014 activities covered under the 2011 Opinion.
- 11-23-15 The Service, NYSDEC, County, FAA, and MJ attended NEPA kick-off meeting call.
- 11-30-15 The Service received a Memorandum which provided a summary of the November 23, 2015, agency kick-off meeting.
- 12-10-15 The Service received a copy of the Wildlife Hazard Assessment.
- 2-17-16 The Service received the FAA-approved Final WHMP.
- 4-26-16 The Service received annual update from County regarding 2015 activities covered under the 2011 Opinion.

- 5-31-16 The Service received a Memorandum for the Master Plan Phase I EA Habitat Impacts to the agencies for review and discussion purposes at the June 2, 2016, meeting.
- 6-2-16 The Service, NYSDEC, County, FAA, and MJ met at the Saratoga County Department of Public Works offices to further discuss the Proposed Action, EA, protected species and habitat impacts, habitat mitigation, and Section 7 process and scheduling. The meeting was followed by a site visit to the Airport to discuss the proposed EA projects and section 7 process requirements.
- 7-13-16 The Service received an updated Habitat Impacts Memorandum based on discussions held during the June 2, 2016, meeting and a Memorandum which provided a summary of the June 2, 2016, meeting.
- 8-29-16 Email exchanges between NYSDEC and MJ regarding butterfly population at the Airport.
- 10-11-16 Email exchanges between Service, NYSDEC, and MJ regarding content and scheduling of the BA.
- 11-29-16 The Service received annual update from County regarding 2016 activities covered under the 2011 Opinion.
- 1-17-17 The Service received draft BA and initiation of formal consultation from FAA.
- 1-19-17 The Service responded with email requesting a word version of BA and clarified that FAA is not requesting initiation of formal consultation as this is just a draft BA.
- 1-20-17 The FAA responded thanking us and will send word version shortly.
- 1-24-17 The Service received word version of BA from MJ.
- 3-2-17 The Service (New York and Twin Cities Field Offices) and NYSDEC participated in a call to discuss the project and brief the Service's national lead for the KBB.
- 3-13-17 The Service, NYSDEC, and FAA participated in a call to discuss the project in advance of providing comments on the BA.
- 3-22-17 The Service provided comments on draft BA to FAA.
- 4-10-17 The Service and NYSDEC briefed the KBB Recovery Team on project.
- 4-18-17 The NYSDEC sent comments on draft BA to the Service, County, FAA, and MJ.
- 4-18-17 The Service participated in a conference call with NYSDEC, County, FAA, and MJ.

- 10-12-17 The NYSDEC and MJ held a site visit of off-airport mitigation sites to discuss potential habitat mitigation and constraints.
- 1-16-18 The Service participated in a conference call with the NYSDEC, FAA, County, and MJ to discuss proposed off-airport habitat mitigation and timeline for agency review of BA and EA.
- 7-18-18 The Service received BA and request for initiation of formal consultation.
- 7-26-18 The Service received the draft EA.
- 10-2-18 The Service sent a letter to the FAA acknowledging initiation of formal consultation.
- 10-2-18 The Service sent an electronic mail to MJ that the Service has no comments on the draft EA.
- 10-29-18 The Service requested an extension for completion of the Biological Opinion to December 21, 2018.
- 11-1-18 The Service requested shapefiles for the project.
- 11-6-18 The Service received shapefiles for the project.
- 11-6-18 The Service requested an updated Habitat Management Protection Plan (HMPP).
- 11-6-18 The FAA agreed to the Service's requested extension.
- 11-7-18 The Service shared draft reasonable and prudent measures (RPMs) and terms and conditions (TCs) with the FAA, County, NYSDEC, and MJ.
- 11-13-18 The Service participated in a conference call with NYSDEC, County, FAA, and MJ to discuss RPMs and TCs.
- 11-13-18 The Service received comments from MJ on RPMs and TCs.
- 11-26-18 The Service received a revised HMPP.
- 12-4-18 The Service participated in a conference call with NYSDEC, FAA and MJ to discuss RPMs and TCs.

Appendix B. Potential Effects of Project on Karner blue butterflies.

Sub-activity	Resources exposed			Determination (No Effect, Not Likely to Adversely Affect, Likely to Adversely Affect)
	Resource or Individuals	Life stage	Functions of the Resource (Breeding, Feeding, Sheltering, Migration/Dispersal)	
Off-Airport Obstruction Removal	NA	NA	NA	NE – no suitable habitat observed in areas proposed for obstruction removal projects
Perimeter Fence Replacement Phase 1	NA	NA	NA	NE – no suitable habitat observed in areas proposed for obstruction removal projects
Perimeter Fence Replacement Phase 2	Crushing	Individuals	NA	Death
	NA	wild lupine, nectar, grasses	B,F,S	Range of response for individual butterflies from negligible to reduced reproduction from loss of available suitable habitat for breeding, to reduced survival from loss of available suitable habitat for sheltering

Sub-activity	Resources exposed			Determination (No Effect, Not Likely to Adversely Affect, Likely to Adversely Affect)			
	Resource or Individuals	Life stage	Functions of the Resource (Breeding, Feeding, Sheltering, Migration/ Dispersal)				
Partial-Parallel Taxiway A	Crushing	NA	individuals	All	NA	Death	LAA
	NA	Permanent loss	wild lupine, nectar, grasses	All	B,F,S	Range of response for individual butterflies from negligible to reduced reproduction from loss of available suitable habitat for breeding, to reduced survival from loss of available suitable habitat for sheltering	LAA
Safety Area Mowing Plan	Crushing	NA	Individuals	All	NA	Death	LAA
	NA	Repeated mowing will basically render the area as unavailable to Karner blue butterflies	wild lupine, nectar, grasses	All	B,F,S	Range of response for individual butterflies from negligible to reduced reproduction from loss of available suitable habitat for breeding, to reduced survival from loss of available suitable habitat for sheltering	LAA

Sub-activity	Resources exposed			Determination (No Effect, Not Likely to Adversely Affect, Likely to Adversely Affect)	
	Resource or Individuals	Life stage	Functions of the Resource (Breeding, Feeding, Sheltering, Migration/Dispersal)		
Taxiway C Realignment	Crushing	Individuals	NA	Death	LAA
	NA	wild lupine, nectar, grasses	Permanent loss	Range of response for individual butterflies from negligible to reduced reproduction from loss of available suitable habitat for breeding, to reduced survival from loss of available suitable habitat for sheltering	LAA
Glider Staging/Run-up Area	Crushing	Individuals	NA	Death	LAA
	NA	wild lupine, nectar, grasses	Permanent loss	Range of response for individual butterflies from negligible to reduced reproduction from loss of available suitable habitat for breeding, to reduced survival from loss of available suitable habitat for sheltering	LAA

Sub-activity	Resources exposed			Determination (No Effect, Not Likely to Adversely Affect, Likely to Adversely Affect)			
	Resource or Individuals	Life stage	Functions of the Resource (Breeding, Feeding, Sheltering, Migration/ Dispersal)				
Safety Area Mowing Plan	Crushing	Individuals	All	NA	Death	LAA	
	NA	Repeated mowing will basically render the area as unavailable to Karner blue butterflies	Individuals	will lupine, nectar, grasses	All	B, F, S	Range of response for individual butterflies from negligible to reduced reproduction from loss of available suitable habitat for breeding, to reduced survival from loss of available suitable habitat for sheltering
Off-site KBB Habitat Restoration and Management	Crushing	Individuals	All	NA	Death	LAA	
	NA	Overall beneficial – restoration and management of habitat	All	will lupine, nectar, grasses	B, F, S	Anticipated increase in available habitat. Periodic disturbance in occupied habitat results in unavoidable impacts to individuals but population should increase.	Beneficial

Sub-activity	Resources exposed			Determination (No Effect, Not Likely to Adversely Affect, Likely to Adversely Affect)
	Resource or Individuals	Life stage	Functions of the Resource (Breeding, Feeding, Sheltering, Migration/ Dispersal)	
Habitat Management and Protection Plan Mowing of Non-Exempt Area	Crushing	NA	NA	LAA
	NA	Overall neutral to beneficial – management of sparse patches of suitable habitat spread across the Airport	Individuals wild lupine, nectar, grasses	AI
			Death	Anticipated increase in available habitat. Periodic disturbance in occupied habitat results in unavoidable impacts to individuals but habitat should remain for individuals.
				B, F, S
				Neutral to beneficial