

BID REQUIREMENTS – SECTIONS A THROUGH P

Section A- Bid Advertisement

Sealed bids will be received by the Town of Denton (herein called the “OWNER”) at the office of the Town Manager, Town Office, 13 North 3rd Street, Denton, Maryland, until 2:00p.m., local time, on April 14, 2014 and then at said location publicly opened and read aloud.

CROUSE PARK, PHASE IC – BOAT BASIN ENHANCEMENT CONSTRUCTION CONTRACT DURATION: 120 CALENDAR DAYS

The work under this contract consists of (1) Stabilizing the shoreline through bioengineering technique of biotubes planted with tidal wetland shrubs and (2) Wetland & Critical Areas Compensatory Mitigation: Wetland mitigation and critical area planting establishment according to specifications through the removal and disposal off-site of historical fills and the reestablishment of tidal freshwater wetland plant species.

Contract documents may be examined at the Denton Town Office, 13 North 3rd Street, Denton, Maryland. Copies of the Contract Documents may be obtained at this office upon payment of Sixty-five (\$65.00) for each set, non-refundable. Checks shall be made payable to Town of Denton.

No Bidder may withdraw his bid within sixty (60) days after the actual date of the opening thereof. Each bid must be accompanied by a BID BOND payable to the “OWNER” for five (5) percent of the total amount of the bid. The right is reserved, as the interest of the Town of Denton may appear, to reject any and all bids, to waive any informalities in bids received, and to accept or reject any items of any bid.

A mandatory pre-bid meeting will be held at 2:00p.m., local time, on April 1, 2014 at the Denton Town Office, 13 North 3rd Street, Denton, Maryland to allow Contractors an opportunity to obtain information on the project from the Consulting Engineer and the Owner.

Questions should be submitted in writing on or before April 8, 2014 to the email address of Donald Mulrine dmulrine@dentonmaryland.com

Town of Denton, E.O.E.

Don Mulrine
Town Administrator

Section B- Information for Bidders

BIDS will be received by the Town of Denton (herein called the "OWNER") at the office of the Town Manager, Town Office, 13 North 3rd Street, Denton, Maryland, until 2 p.m., local time, on **April 15, 2014** and then at said location publicly opened and read aloud.

BIDDERS are advised that the work is to be accomplished on a lump sum and unit price basis and all work shown on the Contract Drawings and specified herein shall be included in the prices BID unless otherwise specifically defined.

Each BID must be submitted in a sealed envelope, addressed to the Town Administrator, Town of Denton, 13 North 3rd Street, Denton, Maryland 21629. Each sealed envelope containing a bid must be plainly marked on the outside as:

BID FOR CROUSE PARK, PHASE 1C – BOAT BASIN ENHANCEMENT CONSTRUCTION

The envelope should bear on the outside the name of the BIDDER, his address, and his Contractor's license number for Maryland. If forwarded by mail, the sealed envelope containing the BID must be enclosed in another envelope addressed to the OWNER. Any BID received after the time and date specified shall not be considered.

All BIDS must be made on the required BID form. All blank spaces for BID prices must be filled in, in ink or typewritten, and the BID form must be fully completed and executed when submitted. One copy of the BID form is required.

The OWNER may waive any informalities or minor defects 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. No BIDDER may withdraw a BID within 60 days after the actual date of the opening thereof. Should there be reasons why the contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the OWNER and the BIDDER.

BIDDERS must satisfy themselves of the accuracy of the estimated quantities in the BID Schedule by examination of the site and a review of the Drawings and Specifications including ADDENDA. After BIDS have been submitted, the BIDDER shall not assert that there was a misunderstanding concerning the quantities of WORK or of the nature of the WORK to be done.

The OWNER shall provide to BIDDERS prior to BIDDING, all information which is pertinent to, and delineates and describes, the land owned and rights-of-way acquired or to be acquired.

The CONTRACT DOCUMENTS contain the provisions required for the construction of the PROJECT. Information obtained from an officer, agent, or employee of the OWNER or any person shall not affect the risks or obligations assumed by the CONTRACTOR or relieve him from fulfilling any of the conditions of the contract.

Each BID must be accompanied by a BID BOND payable to the OWNER for five (5) percent of the total amount of the BID. When the Agreement is executed the bonds of the unsuccessful BIDDERS will be returned, upon request. The BID BOND of the successful BIDDER will be retained until the performance BOND and payment BOND has been executed and approved, after which it will be returned, upon request. A certified check may be used in lieu of a BID BOND.

A PERFORMANCE BOND and PAYMENT BOND in the amount of one-hundred (100) percent of the CONTRACT PRICE, with a corporate surety approved by the OWNER, will be required for the faithful performance of the Contract.

Attorneys-in-fact who sign BID BONDS or PERFORMANCE BONDS must file with each BOND a certified and

effective dated copy of their power of attorney.

The party to whom the Contract is awarded will be required to execute the Agreement and obtain the PERFORMANCE BOND and PAYMENT BOND within ten (10) calendar days from the date when NOTICE OF AWARD is delivered to the BIDDER. The NOTICE OF AWARD shall be accompanied by the necessary Agreement and BOND forms. In case of failure of the BIDDER to execute the Agreement, the OWNER may at his option consider the BIDDER in default, in which case the BID BOND accompanying the proposal shall become the property of the OWNER.

The OWNER shall sign the Agreement and return to such party an executed duplicate of the Agreement within ten (10) days of receipt of acceptable PERFORMANCE BOND and PAYMENT BOND, and Agreement signed by the party to whom the Agreement was awarded. Should the OWNER not execute the Agreement within such period, the BIDDER may by WRITTEN NOTICE withdraw his signed Agreement. Such notice of withdrawal shall be effective upon receipt of the notice by the OWNER.

The NOTICE TO PROCEED shall be issued within ten (10) days of the execution of the Agreement by the OWNER. Should there be reason why the NOTICE TO PROCEED cannot be issued within such period; the time may be extended by mutual agreement between the OWNER and CONTRACTOR. If the NOTICE TO PROCEED has not been issued within the ten (10) day period or within the period mutually agreed upon, the CONTRACTOR may terminate the Agreement without further liability on the part of either party.

The BIDDER shall provide a total of six (6) similar projects each related to wetland construction and bioengineering shoreline performed within the past five (5) years. The submitted information shall include project description, location, contract cost, and client contact information. The OWNER may make such investigations as he deems necessary to determine the ability of the BIDDER to perform the WORK. The OWNER reserves the right to reject any BID if the evidence submitted by, or investigation of, such BIDDER fails to satisfy the OWNER that such BIDDER is properly qualified to carry out the obligations of the Agreement and to complete the WORK contemplated therein. A conditional or qualified BID will not be accepted.

Award will be made to the lowest responsive, qualified BIDDER, based on the Total Base Bid.

All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the PROJECT shall apply to the contract throughout.

Each BIDDER is responsible for inspecting the site and for reading and being thoroughly familiar with the CONTRACT DOCUMENTS. The failure or omission of any BIDDER to do any of the foregoing shall in no way relieve any BIDDER from any obligation in respect to his BID.

The awarded BIDDER shall supply the names and addresses of major material SUPPLIERS and SUBCONTRACTORS when requested to do so by the OWNER.

The ENGINEER is:

*SUSTAINABLE SCIENCE, LLC
410 S. SECOND STREET
DENTON, MARYLAND 21629
Phone: (410) 924-4316
E-mail: albert@sustainable-science.com*

Section C- Bid Submittal Form

CROUSE PARK, PHASE 1C – BOAT BASIN ENHANCEMENT CONSTRUCTION

DATE: _____

TO: TOWN OF DENTON, E.O.E.
DENTON TOWN OFFICE
13 NORTH 3RD STREET
DENTON, MARYLAND 21629

Owner:

Proposal of _____(hereinafter called "BIDDER), organized and existing under the laws of the State of _____doing business as _____ (Insert "a corporation", "a partnership", or "an individual" as applicable) to the TOWN OF DENTON, E.O.E. (hereinafter called "OWNER").

In compliance with your Advertisement for Bids, BIDDER hereby proposes to perform all WORK for:

CROUSE PARK, PHASE 1C – BOAT BASIN ENHANCEMENT CONSTRUCTION

in strict accordance with the CONTRACT DOCUMENTS, within the time set forth therein, and at the prices stated below.

By submission of this BID, each BIDDER certifies, and in the case of a joint BID each party thereto certifies as to his own organization, that this BID has been arrived at independently, without consultation, communication, or agreement as to any matter relating to his BID with any other BIDDER or with any competitor.

BIDDER hereby agrees to commence WORK under this contract on or before a date to be specified in the NOTICE TO PROCEED and to fully complete the PROJECT within 120 consecutive calendar days thereafter. BIDDER further agrees to pay liquidated damages, the sum of \$300.00 for each consecutive calendar day thereafter that he is in default in completing the Contract.

BIDDER acknowledges receipt of the following ADDENDUM:

Note: Bids shall include sales tax and all other applicable taxes and fees.

Schedule D- Bid Schedule Form

CROUSE PARK, PHASE 1C – BOAT BASIN ENHANCEMENT CONSTRUCTION

Item No.	Description	Estimated Quantity	Unit	Unit Cost	Total Cost
1	<i>Construction Mobilization</i>	1	<i>Lump Sum</i>		
2	<i>Sediment & Erosion Control</i>	1	<i>Lump Sum</i>		
3	<i>Clearing & Grubbing</i>	2,900	<i>Square Yards</i>		
4	<i>Mass Excavation</i>	1,500	<i>Cubic Yards</i>		
5	<i>Sand Fill & Fine Grading</i>	600	<i>Cubic Yards</i>		
6	<i>Bioengineered Staked Soil Fabric Practice</i>	150	<i>Linear Feet</i>		
7	<i>700 Series Coir Fabric (Zones A through D)</i>	1,400	<i>Square Yards</i>		
8	<i>EC SC2 Fabric (Zones E through G)</i>	1,500	<i>Square Yards</i>		
9	<i>Zone A Landscape Planting</i>	1,811	<i>2-Inch Plugs</i>		
	<i>Zone B Landscape Planting</i>	2,241	<i>2-Inch Plugs</i>		
10	<i>Zone C Landscape Planting</i>	248	<i>2-Inch Tubelings</i>		
11	<i>Zone D Landscape Planting</i>	100	<i>1-Gallon Containers</i>		
12	<i>Zone E Landscape Planting</i>	291	<i>1-Quart Containers</i>		
13	<i>Zone F Landscape Planting</i>	125	<i>1-Gallon Containers</i>		
14	<i>Zone G Landscape Seeding</i>	270	<i>Square Yards</i>		
15	<i>Goose Fencing (Zone A & B)</i>	650	<i>Linear Feet</i>		
16	<i>Site Clean Up & Demobilization</i>	1	<i>Lump Sum</i>		
				Grand Total:	

TOTAL BASE BID: _____ Dollars (\$ _____)

Notes:

Item 2: Includes furnishing, installing and maintaining Sediment & Erosion Control practices throughout construction. After site is stabilized and approved by the regulatory authority, all practices are to be removed and disposed off-site.

Item 4: Includes excavation of debris and fill soils to expose underlying marsh soils throughout including basin slope cuts. All material is to be removed and disposed in an approved off-site location.

Item 5: Includes furnishing, placing & grading select sand fill throughout all zones.

Item 6: Includes all work to install soil fabric lift practice as detailed on Sheet 5.

Items 9 through 14: Includes one (1) year warranty to replace dead in-place installed plants.

Item 15: Includes constructing and maintaining goose fencing around the combined perimeter of Zones A & B. Goose fencing is to be removed by the Contractor after the one (1) year plant warranty.

Item 16: To be executed after final walkthrough punch list items are completed to the satisfaction of the Project Engineer.

Schedule E: Subcontractors

The undersigned BIDDER proposes to use the following named SUBCONTRACTORS:

Subcontractor Name & Contact Information:

Subcontractor Name & Contact Information:

Subcontractor Name & Contact Information:

Subcontractor Name & Contact Information:

CONTRACTOR shall submit a commitment letter from each SUBCONTRACTOR used in the project.

Schedule F- Construction Start Date

The undersigned BIDDER proposes to commence construction of the:

CROUSE PARK, PHASE 1C – BOAT BASIN ENHANCEMENT CONSTRUCTION

on or before _____, 2014.

Schedule G- Certified Check or Bid Bond

Enclosed herewith is a Certified Check or Bid Bond in the amount of Five Percent (5%) of the Base Bid.

The following Corporation (if applicable) is chartered in the State of _____.

License No. (if applicable) _____.

Witness

Signature

Title

CORPORATE SEAL

Firm Name

Date

Business Address

Section H- Bid Bond

BIDDER (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER:

Town of Denton, E.O.E.
13 North Street
Denton, Maryland 21629

BID:

BID DUE DATE: **April 15, 2014**

PROJECT: ***CROUSE PARK, PHASE 1C – BOAT BASIN ENHANCEMENT CONSTRUCTION***

BOND:

BOND NUMBER: _____

DATE (Not later than Bid due date): _____

PENAL SUM: _____

(Words)

_____ (Figures)

IN WITNESS WHEREOF, Surety and Bidder, intending to be legally bound hereby, subject to the terms printed on the following page hereof, do each cause this Bid Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

BIDDER

SURETY

_____(Seal)

_____(Seal)

Bidder's Name and Corporate Seal

Surety's Name and Corporate Seal

By: _____

By: _____

Signature and Title

Signature and Title

Attest: _____

Attest: _____

Signature and Title

Signature and Title

NOTE:

- 1) Above addresses are to be used for giving required notice.
- 2) Any singular reference to Bidder, Surety, OWNER or other party shall be considered plural where applicable.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to pay to OWNER upon default of Bidder the penal sum set forth on the face of this Bond.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by OWNER) the executed Agreement required by the Bidding Documents and any performance and payment Bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
 - 3.1. OWNER accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by OWNER) the executed Agreement required by the Bidding Documents and any performance and payment Bonds required by the Bidding Documents, or
 - 3.2. All Bids are rejected by OWNER, or
 - 3.3. OWNER fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default by Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from OWNER, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of and any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by OWNER and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in Maryland where the Project.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power or Attorney evidencing the authority of the officer, agent or representative who executed this Bond on behalf of Surety to execute, seal and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer or proposal as applicable.

Section I- Contract Agreement

THIS AGREEMENT, made this _____ day of _____, 2014, by and between the Town of Denton, E.O.E. Denton, Maryland hereinafter called "OWNER" and _____ doing business as a corporation hereinafter called "CONTRACTOR".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The CONTRACTOR will commence and complete the construction of all related work as shown on drawings marked:

Sheet 1 through 7; CROUSE PARK REDEVELOPMENT PHASE 1C: BOAT BASIN ENHANCEMENT CONSTRUCTION by Sustainable Science LLC with title sheet dated February 4th, 2014.

2. The CONTRACTOR will furnish supplies, tools, equipment, labor and other services necessary for the construction and completion of the PROJECT described herein.
3. The CONTRACTOR will commence the work required by the CONTRACT DOCUMENTS within 10 calendar days after the date of the NOTICE TO PROCEED and will complete the same within 120 calendar days unless the period for completion is extended otherwise by the CONTRACT DOCUMENTS.
4. The CONTRACTOR agrees to perform all of the WORK described in the CONTRACT DOCUMENTS and comply with the terms therein for the sum of _____ Dollars (\$), or as shown in the BID schedule.
5. The term "CONTRACT DOCUMENTS" means the Item 1 drawings and also includes all bid requirements, contract specifications and permit requirements included in this document. The following addenda is also included in the CONTRACT DOCUMENTS:

Addenda:

No. _____ dated _____ 2014

No. _____ dated _____ 2014

No. _____ dated _____ 2014

6. The OWNER will pay to the CONTRACTOR in the manner and at such times as set forth in the General Conditions such amounts as required by the CONTRACT DOCUMENTS. The OWNER will pay the Contractor a progress payment on the basis of the approved partial payment estimate less the retainage. The retainage shall be an amount equal to 5% of said estimate until the work has been satisfactorily completed to the aforementioned project plans and specifications. Upon substantial completion of the work, any amount retained may be paid to the Contractor. When the work has been substantially completed except for work which cannot be completed because of weather

conditions, lack of materials or other reasons which in the judgment of the Owner are valid reasons for noncompletion, the Owner may make additional payments, retaining at all times an amount sufficient to cover the estimated cost of the work still to be completed.

- 7. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this AGREEMENT in four (4) each of which shall be deemed an original on the date first above written.

OWNER:
Town of Denton, E.O.E.

By: _____

Name: _____

Title: _____

(SEAL)

ATTEST: _____

Typed Name: _____

Title: _____

CONTRACTOR:

By _____

Typed Name _____

Address _____

(SEAL)

ATTEST:

Typed Name _____

Title _____

Section K- Payment Bond

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER: Town of Denton, E.O.E.
 13 North Third Street
 Denton, MD 2 1629

CONTRACT

Date:

Amount:

Description:

***CROUSE PARK, PHASE 1C – BOAT BASIN ENHANCEMENT CONSTRUCTION
DENTON, MD***

BOND

Date (Not earlier than Contract Date):

Amount:

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the following page, do each cause this Payment Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Company: (Corp. Seal)

Company: (Corp. Seal)

Signature:_____

Signature:_____

Name and Title:

Name and Title:
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

CONTRACTOR AS PRINCIPAL

SURETY

Company: (Corp. Seal)

Company: (Corp. Seal)

Signature:_____

Signature:_____

Name and Title:

Name and Title:
(Attach Power of Attorney)

Section L- Protection of Lives and Property

In order to protect the lives and health of its employees under the CONTRACT, the CONTRACTOR shall comply with all pertinent provisions of the Occupational Safety and Health Administration (OSHA) and any State of Maryland Safety and Health agency requirements. The CONTRACTOR alone shall be entirely responsible for the safety, efficiency, and adequacy of its equipment, appliances, and methods, and for any damage which may result from their failure or their improper construction, maintenance or operation.

The CONTRACTOR shall be responsible for any damages to the Maryland Business Route 404 Bridge structure during any part of their construction operations. Any damage to the bridge structure shall be repaired at the CONTRACTOR's cost to the full satisfaction of the Maryland State Highway Administration.

Section M- Notice of Award

TO: _____

PROJECT Town of Denton, Maryland
DESCRIPTION: ***CROUSE PARK, PHASE 1C – BOAT BASIN ENHANCEMENT
CONSTRUCTION***

The OWNER has considered the BID submitted by you for the above described WORK in response to its Advertisement for Bids dated _____, 2014, and Information for Bidders.

You are hereby notified that your BID has been accepted for items in the amount of _____ Dollars (\$ _____).

You are required by the Information for Bidders to execute the Agreement and furnish the required CONTRACTOR'S PERFORMANCE BOND, PAYMENT BOND and certificate of insurance within ten (10) calendar days from the date of this Notice to you.

If you fail to execute said Agreement and to furnish said BONDS within ten (10) days from the date of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER'S acceptance of your BID as abandoned and as a forfeiture of your BID BOND. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER.

Dated this _____ day of _____, 2014.

By: _____

Owner: Town of Denton, E.O.E.

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged

By: _____

Title: _____

This the _____ day of _____, 2014

Section N- Notice to Proceed

Project: *CROUSE PARK, PHASE 1C – BOAT BASIN ENHANCEMENT CONSTRUCTION*

To: _____

Date: _____

You are hereby notified to commence on-site construction in accordance with the Agreement dated _____, 2014, on or before _____, 2014, and you are to complete this portion of the WORK within 120 consecutive calendar days thereafter. The date of completion of all WORK is therefore _____, 2014.

Owner: Town of Denton, E.O.E.

By: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged

By: _____

Title: _____

This the _____ day of _____, 2014.

Section O- Contract Change Orders

All changes affecting the project's construction cost or modifications of the terms or conditions of the contract must be authorized by means of a written contract change order which is mutually agreed to by the OWNER and CONTRACTOR. The contract change order will include extra work, work for which quantities have been altered from those shown in the bidding schedule, as well as decreases or increases in the quantities of installed units which are different than those shown in the bidding schedule because of final measurements. All changes must be recorded on a contract change order before they can be included in a partial payment estimate. When the CONTRACT sum is, in whole or in part, based on unit prices, the OWNER reserves the right to increase or decrease a unit price quantity as may be deemed reasonable or necessary in order to complete the work contemplated by this CONTRACT.

Section P- Partial Payment Estimates

FORM RD 1924-18, "Partial Payment Estimate" shall be used when estimating periodic payments due the CONTRACTOR. The OWNER may after consultation with the ENGINEER withhold or, on account of subsequently discovered evidence, nullify the whole or part of any approved partial payment estimate to such extent as may be necessary to protect the OWNER from loss on account of:

1. Defective work not remedied
2. Claims filed
3. Failure of CONTRACTOR to make payments properly to subcontractors or suppliers
4. A reasonable doubt that the WORK can be completed for the balance then unpaid
5. Damage to another CONTRACTOR
6. Damage to Maryland Business Route 404 Bridge structure
7. Performance of WORK in violation of the terms of the CONTRACT DOCUMENTS

Where WORK on unit price items is substantially complete but lacks testing, clean-up and/or corrections, amounts shall be deducted from unit prices in partial payment estimates to amply cover such testing, clean-up and / or corrections. Pending satisfaction completion of the above, payment will be made to CONTRACTOR.

CONTRACT SPECIFICATIONS- SECTIONS 1 THROUGH 6

Section 1- General Requirements

1.1 *Contract Specifications and General Conditions*

All references contained herein to the State of Maryland, Department of Transportation or Highway Administration shall be construed to mean Town of Denton as applicable. This Contract utilizes, incorporates and adopts, except where specifically amended or modified in this bid proposal package, the Maryland Department of Transportation, State Highway Administration's "Standard Specifications for Construction and Materials" both dated 2008 (Gray Book) and any amendments thereto. Work items required for completing the contract, but not covered in this "Contract Specifications" Section, will be covered by the applicable MDOT SHA Standard Specifications for Construction and Materials referenced above.

1.2 *Summary of Work*

The Project shall consist of, bioengineered shoreline, wetland mitigation and ancillary construction items as detailed in these Specifications and as shown on the following plan set entitled *Sheet 1 through 7; CROUSE PARK REDEVELOPMENT PHASE 1C: BOAT BASIN ENHANCEMENT CONSTRUCTION* by *Sustainable Science LLC* with title sheet dated *February 4th, 2014* hereafter known as the Drawings.

1.3 *Base Bid Items*

Base Bid items may be added or subtracted from the bid proposal (See Schedule D; Bid Schedule Form) as part of the initial bid proposal analysis in determining the award.

1.4 *ADD and DEDUCT Items*

ADD/DEDUCT items are contract items that may be added or subtracted from the base bid proposal as detailed on Schedule D; Bid Schedule Form to be utilized by the Engineer during the contract to modify or adjust bid item quantities.

1.5 *Schedule/ Sequencing*

A construction schedule shall be developed and incorporate the preparation and review time for the sequence of construction and material data sheets. The Contractor's schedule shall identify the sequencing of all activities noted on the Drawings. To protect spawning anadromous fish, no in-water work shall be performed between February 15 and June 15 of any year.

1.6 *Meetings*

The Contractor shall coordinate and make arrangements with the Engineer for all project meetings including preconstruction conferences, progress meetings and coordination meetings as

required. Progress meetings shall be held on a biweekly basis and will include a review of the Contractor's schedule and progress. The Engineer shall be responsible for recording and distributing the minutes of the meetings.

1.7 Mobilization and Demobilization

1.7.1 Mobilization Contractor shall mobilize all equipment necessary to commence construction to the site within one week after receiving a notice to proceed.

1.7.2 Demobilization & Clean up The contractor shall clean and remove all construction debris and trash from the site and remove all materials and equipment from the site upon the completion of the contract.

1.8 Construction Surveys/Stake-out

Contractor shall perform all construction stakeouts necessary to construct the proposed improvements to the horizontal and vertical dimensions as shown on the Drawings. A vertical datum of Elevation +3.67 ft. NGVD 29 is noted on the drawings near the basin boat ramp will be provided by the Engineer to the Contractor. Horizontal control will utilize the existing basin bulkhead.

1.9 Sequence of Construction Plan & Material Data Sheets

1.9.1 Submittal This work includes the preparation and distribution of Sequence of Construction Plan & associated material data sheets. As a first order of work, the Contractor shall prepare and submit Sequence of Construction Plan & material data sheets to the Engineer for review and approval. The Sequence of Construction Plan and material data sheets shall address all construction details. No materials are to be ordered until the Sequence of Construction Plan and material data sheets have been approved by the Engineer.

1.9.2 Distribution. All Sequence of Construction Plan and material data sheets for the subject structures shall be sent to:

*Town of Denton
13 N. Third Street
Denton, Maryland 21629
Attn: F. Albert McCullough III PWS, P.E., Project Engineer*

The Contractor shall furnish to the above address three (3) sets of each construction sequence plan and material data sheets for primary review. The Contractor shall also submit any design revisions or material substitutions to the Engineer for approval at the above address.

1.10 Quality Control Testing Services

Contractor shall provide all testing and quality control as specified elsewhere in these specifications. *MATERIAL INSPECTION MUST BE PERFORMED BY AN SHA APPROVED LABORATORY OR TESTING AGENCY.*

1.11 Temporary Utilities

If the Contractor requires electric service to the site; the Contractor shall make application for and provide power to the site including power for any field office or construction trailers. The Contractor shall pay all related utility charges for the duration of the contact. The local power company is Delmarva Power Delivery (Phone 1-800-375-7117).

1.12 *Contractor's Field Office, Toilet Facilities and Storage Trailer*

The Contractor shall at his option, provide a field office and or storage trailer at the work site. The Engineer will designate the location for these facilities. At a minimum the contractor shall provide temporary toilet facilities for the use of crews working on the project.

1.13 *Sediment and Erosion Control*

Contractor shall provide all sediment and erosion control measures and protection as required by the National Resource Conservation Service (formerly Caroline County Soil Conservation Service) should the Contractor's disturbed area exceed 5,000 SF. The Contractor is required to notify the National Resource Conservation Service at (410) 479-1202 prior to commencing grading work.

1.14 *MDE Wetlands License and ACOE Permits*

All construction in Maryland Tidal Waters shall be covered by the requirements specified in the *MDE Wetlands License* and Corps of Engineers permit contained in **Appendix A**. A copy of the MDE Licenses and ACOE General Permit are included in these construction documents.

Section 2 – Soil Fabric Lift Construction

2.1 *Description*

The work covered by this section consists of furnishing landscaping, labor, materials, and equipment and performing the operations required for furnishing, testing, hauling, and placing the geotextiles, coir textile, filling with select sand and staking together as specified herein and as shown.

2.2 *References*

The publications listed below, form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designations only.

American Society for Testing and Materials (ASTM) Publications.

D 2487-93 Classification of Soils for Engineering Purposes (Unified Soil Classification System)

D 3786-87 Hydraulic Bursting Strength of Knitted Goods and Nonwoven Fabrics -

	Diaphragm Bursting Strength Test Method
D 3884-92	Abrasion Resistance of Textile Fabrics (Rotary Platform, Double-Head Method)
D 4533-91	Trapezoid Tearing Strength of Geotextiles (R 1996)
D 4595-86	Tensile Properties of Geotextiles by the Wide- (R 1994) Width Strip Method
D 4632-91	Grab Breaking Load and Elongation of (R 1996) Geotextiles
D 4751-95	Determining Apparent Opening Size of a Geotextile

2.3 *Submittals*

2.3.1 Coir Fabric: Manufacturer's data for biodegradable geotextile shall be submitted by the vendors prior to delivery of the coir fabric. A written certificate of compliance from the vendors shall also be submitted upon delivery and shall state that coir fabric shipped to the site meet or exceed the minimum average roll values.

2.3.2 Staking: All staking shall be as shown on Sheet 5.

2.3.3 Coir Fabric Overlap: A minimum of a 2 foot overlap shall be at the roll ends during installation.

2.4 *Delivery, Storage & Handling*

2.4.1 General: Coir Fabric shall be delivered only after the required submittals have been received and approved.

2.4.2 Handling: No hooks, tongs, or other sharp instruments shall be used for handling the coir fabric and shall not be dragged along the ground. The surface upon which it may be installed shall be smooth and free of burrs or protrusions that can snag and tear the fabric.

2.4.3 Storage: Coir fabric shall be stored in areas where water cannot accumulate, elevated off the ground, and protected from conditions that will affect the properties or performance. Coir fabric shall not be exposed to temperatures in excess of 140 degrees F or less if recommended by the manufacturer. Outdoor storage shall not be for periods which exceed the manufacturer's recommendations or 6 months, whichever is less. Prior to installation coir fabric shall not be exposed to direct sunlight for more than 14 days.

2.5 *Materials*

2.5.1 Sand Fill Materials: Sand for filling the encapsulated coir fabric shall consist of materials classified as SM, SC, SP, or SW when classified in accordance with ASTM D 2487 and supplied by the Contractor from local borrow sources. Not more than ten percent (10 %) by weight shall pass the U.S. Sieve Number 100.

2.5.2 Stakes: The stakes shall be cut from eight (8) foot 2 by 4 fir studs to the dimensions shown on Sheet 5. Stakes shall be driven at the locations shown on Sheet 5 leaving two (2) inches of the stake top exposed.

2.5.3 Coir Fabric: The coir fabric shall consist of woven coconut fiber that is a minimum weight of 900 grams per square meter.

2.6 *Execution*

2.6.1 Mobilization & Demobilization: The Contractor shall mobilize sufficient personnel and equipment at the work site to begin required operations at the site. Upon successful completion of the work required as specified herein, the Contractor shall remove all construction equipment, materials, and supplies from the site.

2.6.2 Surface Preparation: The underlying surface to receive the first coir fabric lift shall be excavated to 0.5 feet below the proposed grade then filled to proposed grade with select sand fill. The back bank slope shall be cut to a 1.5H:1V inclination, leveled and prepared to a relatively smooth condition free of ruts, erosion rills, obstructions, depressions, or debris greater than 6 inches in height for the coir fabric lifts.

2.7 *Measurement and Payment*

2.7.1 Soil Fabric Lift Practice: The entire practice including all lifts shall be measured in feet to the nearest linear foot. Payment will be made at the contract unit price per linear foot in the Bid Schedule.

2.7.2 Surveys: All construction surveys will be performed by the Contractor with as-built surveys performed by the Engineer.

Section 3 – Excavation and Landscaping

3.1 General

The Contractor shall provide all labor, materials, equipment and incidentals as shown specified and required to construct the landscaping in accordance with the Drawings. The scope of work under this specification shall include, but not be limited to, the following:

1. Protection of existing wetland vegetation during construction.
2. Provide and install plants following final acceptance by the Engineer of the site grading activities.
3. Maintenance of plantings for one-year following final acceptance by the Engineer of plant installation.

Payment for all work associated with the project landscaping as shown on the Drawings and specified in this section.

3.2 References

1. ANSI Z60.1, American Standard for Nursery Stock.
2. Association of Official Analytical Chemists, Official Methods of Analysis.
3. American Joint Committee on Horticultural Nomenclature, Standardized Plant Names.
4. Official Seed Analysis of North America, Standards of Quality.
5. FSO-F-241D, Fertilizer, Mixed, Commercial.
6. FSO-P-166E, Peat Moss; Peat, Humus; and Peat, Reed-sedge.

3.3 Submittal Requirements

3.3.1 Goose Fencing: Goose fencing plan layout and details illustrating fence height, location of posts and layout. Copies of goose fencing technical data test reports on physical properties of the fabric.

3.3.2 Coir Fabric: Certified statement from the supplier that the fabric is a minimum of 700 grams per square meter for Zones A through D.

3.3.3 EC SC2: Material data sheet from supplier certifying product type and properties for Zones E through G.

3.3.4 Nursery Procurement: Certification from the Contractor and nursery attesting that wetland plants are procured at least three (3) months prior to scheduled planting.

3.3.5 Certificates from Seed Vendors: Certified statement for each seed mixture required, stating botanical and common name, percentage by weight and percentages of purity, germination, and weed seed for each species.

3.3.6 Maintenance Plan: The Contractor shall submit a description of activities, scheduled dates, and personnel assigned to conduct the maintenance inspections. Resumes of inspection personnel demonstrating competence in planting and landscaping shall be submitted as part of the maintenance plan.

3.4 *Quality Assurance*

3.4.1 Plant Inspection: Plants shall be subject to inspection by the Engineer prior to off-loading. All plants failing to meet specified criteria will be rejected and the Contractor shall remove them from the site at his expense.

3.4.2 Wetland and Landscape Subcontractor Qualifications: Wetland and landscape work shall be performed by a single firm specializing in wetland work. The wetland/landscape subcontractor shall have a minimum of 5 years of experience of performing similar work with three (3) representative projects submitted in the bid proposal.

3.4.3 Delivery Slips: Provide delivery slips for materials to verify specified quantities of bulk deliveries of soil amendments and fertilizers.

3.4.4 Analysis and Standards: Package standard products with manufacturers certified analysis. For other materials, provide analysis by recognized laboratory made in accordance with methods established by the Association of Official Analytical Chemists, wherever applicable.

3.4.5 Select Fill Material: Obtain backfill soil material satisfying Unified Soil Classification System textures of SM, SP or SG from suitable sources as specified above. Not more than ten percent (10 %) by weight shall pass U.S. Sieve Number 100. Mechanical gradation test of the proposed fill material shall be performed by the Contractor by a MSHA approved laboratory with the results sent to the Engineer for approval prior to materials delivered to the project. Select fill shall be free from clay subsoil, sawdust, commercial wood products, stones, lumps, plants, roots, sticks, invasive species, chemical contaminants and other materials harmful to plant life.

3.5 *Plug Stock Plant Material Criteria*

Provide wetland plug stock plants grown in an approved nursery in accordance with good horticultural practice, with healthy root systems developed by transplanting or root pruning. Plug stock shall be grown in 2-inch cavity trays. Plugs shall be propagated and grown in cells and not as bare root stock or as bedded plants. The extracted root system shall conform to the shape and dimensions of the growing cells without sloughing soil or growth media as determined by on-site inspection. Materials not conforming to the dimensions of the cell may be rejected without compensation to the Contractor. The extracted root system of the plugs shall have the majority of the roots in the vertical orientation. Roots shall be white in coloration and firm to the touch. Roots shall not have a strong sulfide odor (rotten egg smell) or be black in color. If the horizontal roots are thick and flattened and the roots stays in a thick net shape of the original cell when the media is shaken loose, the plant may be determined to be “pot bound “ and shall be rejected without compensation to the Contractor. Provide healthy, vigorous stock grown under climatic conditions similar to conditions in the locality of the project and free of disease, insects, eggs, larvae, and defects such as knots, sun-scald, injuries, abrasions or disfigurement.

3.6 *Container Stock Plant Material Criteria*

Provide container stock plants grown in an approved nursery in accordance with good horticultural practice, with healthy root systems developed by transplanting or root pruning. The extracted root system shall conform to the shape and dimensions of the growing container without sloughing soil or growing medium, as determined by the on-site inspection. Materials not conforming to the container dimensions may be rejected without compensation. The extracted root system shall have the majority of the roots in vertical orientation. If the horizontal roots are thick and flattened and the root plug stays in a thick net shape of the original container when the growing media are shaken loose, the plant shall be determined to be “pot-bound” and shall be considered unacceptable stock. A continuous bark with cambium green or yellowish in color. Provide healthy, vigorous stock grown under climatic conditions similar to conditions in the locality of the project and free of disease, insects, eggs, larvae, and defects such as knots, sun-scald, injuries, abrasions or disfigurement.

3.7 *Plant Inspection*

Engineer may inspect plug and container stock plants either at the place of growth or at the site before planting for compliance with the requirements for name, variety, size and quality. The Engineer and Town of Denton may further inspect shrubs for size and condition of balls and root systems, insects, injuries and latent defects, and to reject unsatisfactory or defective material at any time during the project. The Contractor shall remove rejected shrubs immediately from the site at no cost to the Town of Denton.

3.8 *Delivery, Storage and Handling of Plant Materials*

3.8.1 Delivery of Materials: Do not deliver plants until site conditions are ready for planting. Deliver packaged materials in original, unopened containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery. Provide protective covering during delivery. Deliver wetland plants after preparations for planting have been completed and plant immediately. If plant material is not used immediately, transplants shall be protected from herbivores and drying while stored at the site.

3.8.2 Wetland Plants: Provide healthy, vigorous growing specimens exhibiting uniform growth and form characteristic of their species that satisfy the project specifications. Plants shall be free of chlorosis, yellowing, blemished or damaged parts. Do not use plants which have been in cold storage or heeled-in. Do not prune prior to delivery. Only freshwater will be used to irrigate transplants during storage. Label all flats of plants and all separate plants with a securely attached waterproof tag, bearing legible designation of botanical and common name, written with waterproof ink.

3.8.3 Seed: Furnish seed in sealed, standard containers with germination and purity percentages clearly labeled. Seed that is wet or moldy or that has been otherwise damaged in transit or storage shall be replaced at no additional cost to the Town of Denton.

3.8.4 Notification: Contractor shall notify Engineer 48 hours in advance of delivery of all plant material. Upon inspection, any material not satisfying the specifications shall be immediately removed from project site.

3.8.5 Storage of Materials: If planting is delayed more than 6 hours after delivery, set plants in shade, protect from weather and mechanical damage, and keep roots moist with freshwater only.

Do not remove container grown stock from containers until planting time. Store and cover materials to prevent deterioration. Remove packaged materials which have become wet or show deterioration or water marks from the site and replace at no additional cost to the Town of Denton.

3.9 *Materials*

3.9.1 Goose Fencing: Goose fencing shall consist of sawn oak stakes 2 by 2-inch and eight (8) foot in length with one end sharpened to a point to allow efficient driven installation. Twine shall be abrasion and rot resistant, No. 21, 187 pound tensile strength twisted nylon twine. Plastic ribbon shall be comprised of one and one-half (1.5) inch wide plastic ribbon. Goose exclusion top grid shall be built of 100-pound test monofilament line, secured to the line posts with 1-1/2 inch galvanized steel roofing nails.

3.9.2 Wetland Plants: Provide plant materials true to name and variety established by the American Joint Committee on Horticultural Nomenclature, Standardized Plant Names. Provide wetland shrubs, and other plants complying with the recommendations and requirements of ANSI Z60.1, American Standard for Nursery Stock and as further specified. Wetland plants shall be of the species noted on the Drawings.

3.9.3 Grass Seed Mixture: Provide fresh, clean, new-crop seed complying with the tolerance for purity and germination established by the Official Seed Analysts of North America. Provide seed of the grass species, proportions and minimum percentages of purity, germination, and maximum percentage of weed seed, as specified. A warm-season grass mix shall be used and be planted between April 15th and June 1st with the composition shown on the Drawings. Weed content of seed mixtures shall not exceed 0.25 percent. Seed mixtures shall be free of noxious weeds.

3.9.4 Container Grown Stock: Where specified as acceptable, provide healthy, vigorous, well-rooted shrubs established in the container in which they are sold. Established container stock is defined as a shrub transplanted into a container and grown in the container for a length of time sufficient to develop new fibrous roots so that root mass will retain its shape and hold together when removed from the container. Use rigid containers which will protect root mass during shipping. Provide shrubs established in containers of not less than the minimum sizes recommended by ANSI Z60.1 for the kind, type and size of shrubs required.

3.9.5 Fertilizers: For wetland plants one (1) ounce per plug of slow release fertilizer (8-9 months) with an 18N:6P:12K analysis, such as Osmocote or equal. For wetland trees and shrubs, one (1) - ten (10) gram tablets, 8 to 9 month release, 20N:10P:5K Agriform or approved equivalent for each quart container and tubeling stock. Seeding fertilizer shall be commercial designation of 18N:24P:6K analysis. A complete fertilizer of neutral character with a minimum of 75 percent nitrogen shall be derived from natural organic sources. Minimum 40-50 percent of nitrogen shall be water soluble and uniform in composition, free-flowing and suitable for application with approved equipment. Product shall be Scotts Starter Fertilizer with a 20N:27P:5K analysis, or approved equal.

3.10 *Execution*

3.10.1 Clearing and Grubbing: The Contractor shall remove all vegetation in Zones A through G on the Drawings. Grubbing shall also be executed throughout all Zones. Existing wetland

vegetation shall be protected during this activity. All debris shall be removed from the site and disposed of in an approved location.

3.10.2 Excavation: Zones A through G shall be over-excavated 0.5 feet below proposed grades and backfilled with washed sand to proposed grades that has less than ten (10) percent passing the Number 100 sieve. Final grades shall be graded to within +/- 0.1 feet of the proposed grade as shown on the Drawings. Contractor shall perform the final grade survey with the Engineer to confirm compliance. All plant material shall be planted in soils that satisfy Unified Soil Classification System textures of SP, SW or SM. Not more than ten percent (10 %) by weight shall pass a U.S. Sieve Number 100.

3.10.3 Goose Fencing: Contractor shall install framework, fencing and accessories along the combined perimeter for Zones A & B. Galvanized 1.5 inch roofing nails shall be installed a maximum of 6-inches from top of wooden stake and monofilament line secured to nail to prevent movement. Nylon monofilament line shall be strung across the top of the planted area grid shown as Zones A & B on the Drawings. The fencing shall be installed around the entire perimeter of Zones A & B and monofilament line shall be strung above the planted areas as specified. Following determination by the Engineer that mitigation success has been achieved, the goose exclusion fencing shall be disassembled manually by the Contractor and removed from the site. All pieces of foreign matter trapped by the fencing during operation, such as debris and tide-borne wrack shall be removed and disposed of off-site at an approved location.

3.10.4 Planting: Wetland plant plug stock shall be planted between April 15th and June 15th to the densities and species as shown on the Drawings. A cylindrical dibble or plug extractor shall be used to develop planting hole with bit slightly larger than plug stock. The created hole shall allow for easy plant placement to match the base of plant with the surrounding grade while limiting formation of air pockets beneath planting hole. Prior to placement of plant plug, add one (1) ounce of fertilizer to bottom of planting hole. Insert plant in hole with root system oriented downward. While the plant is in this position, the soil profile shall be fully and firmly closed with an appropriate hand tool. Once the soil is closed, firm foot pressure shall be applied in several positions immediately adjacent to the plantings to ensure good soil and plant contact, and to remove any air pockets and voids. If a soil depression is formed above or immediately adjacent to the planting location, enough soil shall be sloughed from the surrounding area and firmly tamped, but not compacted, into the depression to leave the planting area at the same elevation as the surrounding soil or slightly higher.

3.10.5 Warm Season Grass Mix: Warm season grass mix shall be sown to the density shown in specifications and Drawings throughout Zone G. Seed materials shall be inspected by the Contractor upon arrival at the job site and prior to planting. Any materials not in compliance with specifications shall not be accepted and shall be removed from the job site immediately. Seeds shall be fresh, free of deleterious material and disease and delivered to the site in original packages during delivery and until time of sowing shall be stored at room temperature. A certified net weight, date of germination tests, supplier's name and certified guarantee of analysis including purity and germination percentages shall be shown clearly on each storage container. Seedbeds shall be prepared by scarifying all compacted areas and removing all debris and obstacles. Do not broadcast seed by mechanical application when the wind velocity is such as to prevent uniform seed distribution. Seed at the rate indicated in the project specifications and Drawings with sand filler. Seeding shall be performed between April 15th and June 1st. Seed shall be thoroughly mixed in sand fill and hand broadcast to provide a uniform coverage to the specified sown density.

3.10.6 Erosion Control Blanket Installation: Prior to planting Zones A through D and as, Coir Mat 700 blanket shall be installed throughout the Zones A through D after final grading has been approved. Coir blanket shall be installed in accordance with the manufacturer's recommendations. After approval of the final grading of the 0.5 feet of the specified sand fill in Zones E through G, the warm season grass mix shall be sown in Zone G with the EC SC2 erosion control mat installed throughout Zones E through G immediately afterwards. The erosion control mat shall be installed in accordance with the manufacturer's recommendations.

3.10.7 Wetland Trees & Shrubs: All shrubs shall be laid out in random and naturalistic arrangements, as shown on the Drawings unless otherwise directed by the Engineer. Remove any underground obstructions to the depth necessary to permit proper planting. Remove and dispose of all unsuitable materials off-site at an approved disposal site at Contractor's cost. Excess excavations from the plant installation activities may be spread on site, graded so as to not pond water.

3.10.8 Container: Cut containers on two (2) sides with an approved can cutter and remove plant from container. Set container grown stock as indicated in the plant details on the Drawings. If container grown plant is root-bound or can be easily pulled from container, the plant shall be rejected. Place plant on a cushion of planting soil mixture and carefully work soil around roots by hand and puddle with fresh water until the soil backfill is completely saturated.

3.10.9 Setting Plants: Install plant stock in accordance with the plant details shown on the Contract Drawings. Place one 10-gram fertilizer tablet in each quart container hole before planting. Contractor shall take care not to exert any pressure that will damage any portion of the plant.

3.10.10 Surface Compaction: Select Fill backfill shall be firmed by foot pressure around the base of all shrubs. Avoid compacting the soil. Do not leave plants exposed to sun or wind prior to planting. Take special care to avoid desiccation of fibrous-rooted plants.

3.10.11 Damages: The Contractor shall be liable for any damage to property caused by planting operations and the Contractor shall, without any additional cost to the Town of Denton, restore or replace to original or specified condition.

3.11 *Maintenance Program*

3.11.1 Duration of Warranty: The maintenance program shall be in force during the one (1) year from final acceptance of wetland plant installation by the Engineer. During the maintenance program period, the Contractor shall be responsible for all plantings in Zones A through E on the Drawings.

3.11.2 Maintenance Inspection: The Engineer will periodically inspect the mitigation site during the maintenance program to document damage to sediment & erosion control barriers, goose exclosure fencing and debris exclusion fencing. The Contractor shall repair all documented damage by the Engineer within one week of receiving written notification by the Engineer. All repair work shall comply with the project specifications and Drawings. The Contractor and Engineer shall jointly inspect the mitigation area in early spring, following snow and ice melt. The inspection shall assess the condition of the goose exclosure fencing and sediment & erosion control barriers, ground surface, and plant materials. Within one (1) week following the

inspection, the Engineer shall notify the Contractor in writing of all damage. The notification shall include total quantities of plant material to be replaced with a schedule to complete all repair work. All damage to goose enclosure and sediment & erosion control shall be repaired within one (1) week of the inspection. The Contractor shall replace all damaged plant materials prior to the beginning of the growing season.

3.11.3 Maintenance Period Criteria: The maintenance period shall be extended an additional year for all plants replaced during the initial maintenance period. Plant materials determined to be dead or seriously weakened shall not be accepted. If goose enclosure fencing have been installed on time and as specified on the Drawings and specifications, as solely determined by the Engineer, those plants absent or damaged via herbivory shall be credited for acceptance. Plants absent for reasons other than herbivory shall not be accepted. If goose enclosure fencing was not initially installed on time and as specified, all absent or seriously damaged plant materials including those damaged or lost to herbivory, as solely determined by the Engineer, shall not be accepted. Plant materials found dead, absent, seriously damaged, weakened or desiccated, floating on the water surface, deposited along the edge of the wetland, exposed on soil, or within the water column shall be replanted with plant stock satisfying the specifications and Drawings at no additional cost to the Town of Denton and at the expense to the Contractor. If new materials are required to achieve the target planting densities of eighty-five percent (85%) as specified on the Drawings they shall be acquired and installed by the Contractor at no additional cost to the Town of Denton. The Contractor shall remove all litter and debris that accumulates in the mitigation area on a monthly basis throughout the maintenance program period.

APPENDIX A:
WETLAND LICENSE

APPENDIX B:

PROJECT DRAWINGS