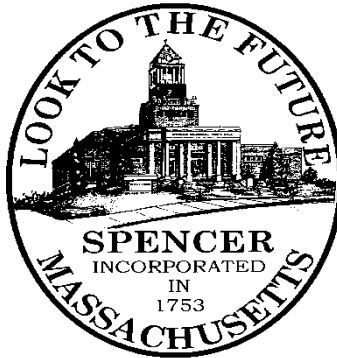


**REQUEST FOR PROPOSALS  
for  
LAND LEASE FOR SOLAR PHOTOVOLTAIC  
PROJECT  
AT THE SPENCER LANDFILL**

Under Massachusetts General Laws, c. 30B,  
§16, Real Property Disposition

**Issued: August 16, 2017**



**UTILITIES AND FACILITIES  
OFFICE  
TOWN OF SPENCER, MA  
(Awarding Authority)**

**Administration**

**Name:** Mr. Adam D. Gaudette  
**Title:** Town Administrator

**Procurement Contact**

**Name:** Mr. Steven J. Tyler, P.E.  
**Title:** Superintendent  
**Email:** [styler@spencerma.gov](mailto:styler@spencerma.gov)

**Responses Due**

**Date:** 9/21/2017  
**Time:** 2:00 PM

## **ADDENDUM NO. 1**

**To:** Prospective Respondents

**From:** Steven J. Tyler, P.E., Superintendent, Spencer Utilities & Facilities Office

**Date:** September 5, 2017

**Re:** **ADDENDUM NO. 1 - RFP for Land Lease for Solar Photovoltaic Project at the Spencer Landfill – Response to Question**

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The following contract amendments are hereby incorporated into the above referenced contract bid documents.

### **RFP RESPONSE DUE DATE & DELIVERY LOCATIONS**

Response Due Date: September 21, 2017, no later than 2:00 PM. Please try to have your responses to us before noon on 9/21/2017 to Spencer Water Dept./U&F Office, 3 Old Meadow Road, Spencer. If you get to our office between noon and 2:00 PM and find it closed please deliver to Town Hall at 157 Main Street, Spencer. Cell phone number for use on that day only 508-654-5773.

### **RFP AMENDMENTS**

None

### **RFP QUESTIONS AND ANSWERS**

Q: Am I correct that this RFP is to lease the land only for the sole purpose of solar PV installation and complying with all land maintenance and restrictions outlined?

A: Yes.

Q: The winner is required to install a solar system, but the town will not be the off-take meaning the winner will have to find another buyer for the electricity generated for a max of 20 years? In other words, the winner will not be selling the electricity to the town via a PPA or any other form of financial agreement.

A: Yes, correct.

Q: Assuming the Town is not to be the off-taker, can I ask why the Town is not interested in purchasing the renewable solar power generated from the facility? Or are we (or the winner) to propose to the town in a separate proposal to purchase solar via a 20 year PPA.

A: No the Town is not able or interested in purchasing the renewable solar power generated from the facility. The Town is in Year 2 of a 20-year Net Metering Agreement with a solar facility elsewhere within the NGrid territory. The successful respondent will have to find another off taker. .

Q: I'm writing in response to the solar RFP. Section 3 of the Technical Proposal Requirements section, item (f) references an indicative project schedule. I didn't see this in the RFP document. Can you provide the schedule?

A: Formatting of the indicative project schedule shall be established by the respondent and included with their response.

The RFP pre-bid meeting was held on schedule at the site on August 29, 2017. As stated in the RFP we have no intention of providing minutes or details of what was discussed by any party at that meeting, however, we have decided to include the following questions and responses that we determined significant to the RFP process. A copy of the pre-bid meeting sign-in sheet is attached for reference

Q: What year was the landfill closed.

A: The landfill became inactive in 1987, and was capped by 1996.

Q: Will monitoring of the onsite wells be required by the respondent?

A: No. Monitoring of the vents and wells at the site will continue to be performed by the Town. The successful respondent shall provide full access to the site at all times for all personnel authorized by the Town and/or Town designated representatives.

Q: Are there groundwater monitoring wells at the site and what is the location?

A: A Site Plan depicting the existing surface and groundwater monitoring locations, gas vent locations, and approximate cap limit is attached to supplement the materials in the RFP. The wells and surface water locations are not inside of the capped boundary of the landfill. However, the gas vents are located on the landfill cover.

Q: How active is the methane discharge?

A: The landfill is monitored annually, and gas vent monitoring is performed as part of that activity. During the October 2016 monitoring event, methane was identified at each of the eight gas vents in excess of the lower explosive limit (LEL). This result was higher than previous years, but methane is generally identified during the monitoring events. All respondents must account for the gas vents and all relevant regulatory and safety requirements in their design, permitting and operations of the solar array.

Q: It appears that there is some additional suitable land west of the facility but east of the fire training facility and compost area. Can the "Project Area" be extended to those areas?

A: Yes, if approved by the Town during the permitting process. The installation shall not impact the composting area drive, drainage ways or channel separating project from the fire training site. Suitable egress for trail users shall also be included.

Q: A verbal question was raised essentially asking how the Town will calculate property taxes for the awarded solar developer/development?

A: The Town will calculate the Payment in Lieu of Real and Personal Property Taxes (PILOT) agreement for this project in a manner similar to other solar development facilities in the Town of Spencer. Attached is a copy of a recent PILOT agreement for reference. The method we use for this is as prescribed by the Massachusetts Department of Revenue (DOR). Our method for this will be level for all responding to this RFP based upon the total value of improvements made to the solar array area by the awarded respondent.

Prepared by:

Steven J. Tyler, P.E., Superintendent  
Town of Spencer - Utilities and Facilities Office  
[styler@spencerma.gov](mailto:styler@spencerma.gov)

Enclosures





**Meeting Date: August 28, 2017**

**Meeting Date: August 28, 2017**

**Meeting Date: August 28, 2017**

2023

NAME	AFFILIATION	ADDRESS	E-MAIL ADDRESS	TELEPHONE NO.
Emily Mann	Citizens Energy	999 Black Falcon Ave	emmann@citizensenergy.com	617-95
Shawn Conoley	Ameresco	111 Green St, Framingham, MA	Scorbly@Ameresco.com	508 661 2200
Ted Bradley	"	"	tlindberg@ameresco.com	"

**Meeting Date: August 28, 2017**

**Meeting Date: August 28, 2017**

**Meeting Date: August 28, 2017**

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**AGREEMENT FOR PAYMENT IN LIEU OF REAL AND PERSONAL  
PROPERTY TAXES**

**between**

**THE TOWN OF SPENCER, MASSACHUSETTS**

**and**

**WOODCHUCK SOLAR, LLC**

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THIS AGREEMENT FOR PAYMENT IN LIEU OF REAL AND PERSONAL PROPERTY TAXES (this "Agreement") is made and entered into as of [REDACTED], 2017 ("Effective Date") by and between (i) Woodchuck Solar, LLC (the "Developer"), a limited liability company duly established by law in the Commonwealth of Massachusetts having an address of 180 Harbor Drive, Suite 225, Sausalito, CA 94965, (ii) the Town of Spencer, Massachusetts, a municipal corporation duly established by law and located in Worcester County, Massachusetts (the "Town"), and (iii) Daniel J. Lemenager and Tammy L. Lemenager as Trustees of the Lemenager Realty Trust ("Property Owner"), having an address of 19 Woodchuck Lane, Spencer, MA 01562. The Developer, Property Owner, and the Town are also referred to collectively as the "Parties" and individually as a "Party."

WHEREAS, the Developer plans to build and operate a metered, ground-mounted solar photovoltaic facility (the facility, hereinafter referred to as the "Project") with an estimated "nameplate capacity" of approximately 1.346 MW (DC), on an approximately 5.46 portion of an approximately 14.76 acre parcel of land owned by Property Owner, and located at 363 East Main Street, Town of Spencer, Worcester County, Massachusetts, which land is shown on the Spencer Assessors' Maps as U16, Lot 54-1, and on a plan of the Project (Plan Book 920, Plan 73, recorded in the Worcester County Registry of Deeds), copies of which Assessors' Map and Plan are attached hereto as Exhibit A (said 5.46 acre portion of land only, excluding any buildings and all things now or hereinafter affixed on such land and constituting real property under M.G.L. c. 59, § 2A(a), hereinafter referred to as the "Property");

WHEREAS, the Developer represents and warrants that it is a "generation company" or "wholesale generation company" as those terms are used and/or defined in M.G.L. c. 59, § 38H (b), and M.G.L. c. 164, § 1, and the Town relies on this representation and warranty in entering into this Agreement;

WHEREAS, it is the intention of the Parties that, in accordance with M.G.L. c. 59, § 38H (Acts of 1997 Chapter 164, Section 71(b), as amended) and the Massachusetts Department of Revenue regulations adopted in connection therewith, the Developer shall make annual payments to the Town for the term of this Agreement in lieu of real and personal property taxes for the Project and the Property;

WHEREAS, it has been determined that the Property is subject to real property taxes under M.G.L. c. 59, § 2B, and such taxes are included in the payments to be made by Developer under this Agreement;

WHEREAS, because both the Developer and the Town need an accurate projection of their respective expenses and revenues with respect to the Project and Property, the Parties believe that it is in their mutual best interests to enter into this Agreement fixing the formula for calculation of payments that will be made with respect to all taxable real and/or personal property attributable to the Project for the full term of this Agreement, and the real property taxes that would have otherwise been assessed for

the Property;

WHEREAS, the Parties intend that, during the term of the Agreement, the Project shall be deemed personal property, and Developer will not be assessed for any statutory real and personal property taxes to which it might otherwise be subjected under M.G.L. c. 59 for the Project and Property, and that this Agreement will provide for the exclusive payments in lieu of such during the term hereof, provided, however, that the Parties do not intend for this Agreement to affect any other payments that the Developer or Property Owner is otherwise obligated to pay the Town, including, but not limited to, real estate taxes for buildings or (other than the Project) other things now or hereinafter affixed to the Property and constituting real property under M.G.L. c. 59, § 2A(a);

WHEREAS, the Town is authorized to enter into this Agreement with the Developer, provided that the payments of real and personal property taxes over the term of the Agreement are reasonably expected, as they are so expected, to approximate the tax payments that would otherwise be determined under M.G.L. c. 59 based on full and fair cash value; and

WHEREAS, the Parties have reached this Agreement after good faith negotiations.

NOW THEREFORE, in exchange for the mutual commitments and other good and valuable consideration, the receipt and sufficiency of which are acknowledged, the Parties agree as follows:

1. Payment of Real and Personal Property Taxes. The Parties agree that during the term and for the purpose of this Agreement, the Project shall be deemed personal property. The Developer, on behalf of itself and the Property Owner, agrees to make quarterly payments to the Town for real and personal property taxes for the Project and Property for a period of twenty (20) consecutive years. Payments shall commence with the fiscal year (July 1 – June 30) immediately following the first date on which the Project achieves commercial operation and is delivering power to the electrical distribution system or, if earlier, August 1, 2017 (the “Commencement Date”), provided further that between the Effective Date and the Commencement Date the Property Owner shall remain responsible for payment of all real estate taxes for the Property. Such payments shall be made on February 1, May 1, August 1 and November 1 of each fiscal year. The Parties agree that, as of the Commencement Date, the valuation for the real estate shall remain fixed for a term of twenty years, as described in Exhibit C, attached hereto. The Parties agree that the valuation for the personal property incorporated into the Project will also be fixed and depreciated over a term of twenty years as described in Exhibit C, except, however, to the extent that the Developer adds new equipment or personal property to the Project (not to include trucks, trailers, or tools temporarily located on the Property to perform repairs or maintenance of the Project) or replaces or permanently removes from the Project any of the property listed on the Inventory, as such term is defined in Section 2, in which event the valuation for the personal property

incorporated into the Project shall be adjusted as described in Sections 3 and 4.

2. On or before January 1, April 1, July 1 and October 1 of each year, the Town shall deliver a quarterly bill to the Developer indicating the specific amount of the quarterly payment due on February 1, May 1, August 1 and November 1 of that fiscal year, respectively. In each such bill, the Town shall include the amount of any adjustment on account of the addition, replacement or permanent removal, if any, of equipment or personal property; provided, however, that any failure of the Town to provide any such bill in the required timeframe shall extend on a day-for-day basis the date on which the applicable quarterly payment shall be due, but shall not relieve Developer of its obligation to make such quarterly payment. Furthermore, in the event that the Town adopts a semi-annual (or other) tax billing schedule, the billing schedule for payments under this Agreement shall, at the sole election of the Town, be adjusted by the Town to conform to such tax billing schedule.

For the avoidance of doubt, below is an example of the calculation of annual payments under this Agreement.

Assuming year one of this Agreement, and assuming that the real estate and personal property valuations for year one are as listed in Exhibit C, and assuming further that the tax rate for year one is \$19.84 per \$1,000 of value for real property and personal property, the year one payment is calculated as follows:

$[\$1,073,505/1,000 \times \$19.84] + [\$275,000/1,000 \times \$19.84] = \$26,754.34$   
Total Payment Year One (billed quarterly, \$6,688.59 due February 1, \$6,688.58 due May 1, \$6,688.58 due August 1 and \$6,688.58 due November 1).

3. Inventory. Attached hereto as Exhibit B is an itemized inventory of the equipment or personal property that is expected to be incorporated into the Project as of the Commencement Date (the "Inventory"), which inventory shall not include any buildings. The Parties understand, acknowledge and agree that the equipment and personal property actually installed for the Project may differ from that shown in Exhibit B. Therefore, upon completion of such installation, if the equipment and personal property incorporated into the Project differs from the property shown in Exhibit B, the Parties shall update the Inventory and replace Exhibit B with the updated Inventory, and the depreciation and valuation schedule in Exhibit C shall be modified accordingly by the Town and the modified schedule shall be substituted for the schedule in Exhibit C by amendment to this Agreement, which the Parties agree to execute.

The Developer will update the Inventory annually on or before January 1 of each year, and will provide such updated written Inventory to the Town on or before March 1 of each year, except that if, in any year, there are no changes to the Inventory, Developer shall, on or before March 1, send written notice to the Town stating that there has been no

change to the Inventory. Together with each such updated Inventory, the Developer will provide (i) a description of all additions, replacements, and permanent removals of equipment and personal property that have occurred since the preceding year (including any new or replacement equipment or personal property below the De Minimis Annual Amount, as defined in Section 4 below) and (ii) a separate itemized listing of the items of new and replacement equipment and personal property, including the items of new or replacement equipment or personal property falling within the De Minimis Annual Amount (as defined in Section 4) and the cost and fair market value of such property and equipment.

Upon agreement of each updated Inventory, if necessary, the valuation schedule for personal property in Exhibit C shall be modified accordingly by the Town, in accordance with this Agreement. Failure to include all personal property on any Inventory shall constitute a material breach of this Agreement by Developer, subject to the termination and cure provisions in Section 17(c).

The Town, its officers, employees, consultants and attorneys will have the right to inspect the Project at reasonable times, upon reasonable prior notice to Developer, to verify the Inventory and all updates thereto. During any such inspection, the Town's officers, employees, consultants and attorneys shall at all times comply with all reasonable safety procedures established by the Developer and provided in writing to the Town in advance of any site inspection. At its election, Developer may have Town accompanied by an employee or agent of Developer during any such inspection.

Within thirty (30) days following completion of as-built plans of the Project, Developer shall provide a copy of such plans to the Town.

4. Value of Improvements, Additions to and Removals from Project. Except as set forth in the next full paragraph of this Section 4, to the extent that the Developer adds new equipment or personal property to the Project or replaces the property listed on the Inventory, the valuation schedule in Exhibit C will be adjusted. The adjustment will be calculated by the Town by incorporating, into the valuation schedule, the cost paid by Developer for such property, unless such cost is reasonably determined by the Town's assessor to be materially less than the fair cash value of such property, in which event the value of such property shall be determined as follows: the Parties shall solicit prices for the property in question from three persons in the business of selling such property selected by the Parties, and the average of such prices shall constitute the cost of the property for making adjustments to the valuation schedule as set forth in this provision. In the event the Developer and the Town disagree with regard to the prices submitted, the Developer and the Town will use a good faith effort to negotiate an acceptable value for the Inventory items; provided, however, that if no acceptable value is determined by negotiation within fourteen (14) days, the Developer and the Town agree to determine the value for the Inventory by binding decision issued by an experienced, independent appraiser selected by the Parties. In the event the Parties cannot agree on an appraiser,

unless the Parties agree otherwise in writing, each Party shall identify an experienced, independent appraiser within thirty (30) days of the cessation of informal negotiations and shall use a “coin flip” to select between the two appraisers, which appraiser shall be directed by the Parties to issue a written decision within thirty (30) days or such other period agreed upon by the Parties, which decision shall be final and binding on the Parties absent fraud or manifest error. The Parties will share equally in the costs of the appraiser. The value of the new or replacement equipment or personal property will be depreciated at the same rate as set forth in Exhibit C for personal property, i.e., six percent (6%) per year in each of the first ten (10) fiscal years after the addition of the New Property and at one percent (1%) per year in each of the remaining fiscal years. The permanent removal or replacement of property from the Project will cause the value of the project to be decreased by the remaining, undepreciated value (if any) of such item, determined by applying the depreciation schedule set forth in Exhibit C to the value of any such item when it was added to the Inventory.

Notwithstanding the preceding paragraph of this Section 4, new, replacement or permanently removed equipment or personal property the aggregate cost and value of which is equal to or less than \$25,000 in and for any calendar year (such dollar amount, the “*De Minimis Annual Amount*”), shall not give rise to an adjustment in the valuation schedule in Exhibit C; provided, however, that at no time shall the cost of new, replacement or permanently removed equipment or personal property constituting solar modules, inverters, or transformers be included within an De Minimis Annual Amount, it being agreed that the addition, replacement or permanent removal of such equipment shall result in an adjustment to said schedule irrespective of the cost/value of such equipment. For the avoidance of doubt, in the event in and for any calendar year the aggregate cost of new or replacement equipment or personal property (other than solar modules, inverters or transformers) exceeds the De Minimis Annual Amount, the entire value of such equipment or personal property (and not merely the amount that exceeds the De Minimis Annual Amount) shall result in an adjustment to the valuation schedule in Exhibit C.

5. Payment Collection. Interest at fourteen (14) percent per annum will accrue on overdue payments from the due date until payment is made by Developer. All rights and remedies available to the Town for the collection of taxes shall apply to the payments in lieu of taxes hereunder, including, but not limited to, the rights and remedies provided in M.G.L. c. 59 and M.G.L. c. 60, and all such rights and remedies are hereby reserved notwithstanding anything to the contrary herein. The provisions of the General Laws, including M.G.L. c. 59 and M.G.L. c. 60, will govern the collection of any payments in lieu of taxes provided for in this Agreement as though they were real and personal property taxes due and payable to the Town. If Developer fails to make payments due and payable hereunder and then also fails to cure such failures following written notice from the Town under Section 17(a) (Termination), and the Town undertakes collection efforts, Developer shall pay all reasonable costs of such efforts, including the Town’s reasonable attorneys’ fees.



6. Additional Information. The Developer shall promptly provide such other information as may be reasonably requested by the Town from time to time to determine and verify the existence, condition, cost and valuation of any and all equipment and personal property and any additions thereto incorporated into the Project. In addition to any other rights of inspection hereunder, the Town, its officers, employees, consultants and attorneys will have the right to periodically inspect the Project on reasonable notice to the Developer, provided that Developer may, at its election, have the Town accompanied by an employee or agent during any inspection. The Town, its officers, employees, consultants and attorneys shall also have the right to review and audit at its cost and expense (excluding payment of any costs incurred by Developer in cooperating with such review and audit) any and all documents in the possession of the Developer relating to this Agreement and the Project for the purposes, among others, of implementing this Agreement, and of confirming and verifying that the Developer has accurately updated the Inventory.

7. Successors and Assigns. This Agreement is binding upon and inures to the benefit of any and all successors and assigns of the Parties who take assignment of the whole or any party of this Agreement in accordance with the terms of this Agreement.

8. Statement of Good Faith. The Parties agree that the payment obligations established by this Agreement were negotiated in good faith in recognition of and with due consideration of the full and fair cash value of the Project and the Property and applicable law, to the extent that such value is determinable as of the date of this Agreement, in accordance with M.G.L. c. 59, § 38H. Each Party was represented by counsel in the negotiation and preparation of this Agreement and has entered into this Agreement after full and due consideration and with the advice of its counsel and its independent consultants. The Parties further acknowledge that this Agreement is fair and mutually beneficial because it reduces the likelihood of future disputes over real and personal property taxes, establishes tax and economic stability, and fixes and maintains mutually acceptable and reasonable payments in lieu of taxes for the Project and the Property. The Town acknowledges that this Agreement is beneficial because it will result in mutually acceptable, steady, predictable, and reasonable payments in lieu of taxes to the Town. The Developer acknowledges that this Agreement is beneficial because it ensures that there will be mutually acceptable, steady, predictable, and reasonable payments in lieu of taxes for the Project and the Property.

9. Notices. All notices, consents, requests, or other communications provided for or permitted to be given hereunder by a Party must be in writing and will be deemed to have been properly given or served upon the personal delivery thereof, via courier delivery service, by certified mail, or reputable overnight delivery service, provided that any notice not sent in such manner shall, if received by the Party to whom it is addressed, be valid and deemed effective as of the date of receipt by such Party. Such notices shall be addressed or delivered to the Parties at their respective addresses shown below.

To: Woodchuck Solar, LLC  
c/o 38 Degrees North  
180 Harbor Drive, Suite 225  
Sausalito, CA 94965

With a Copy to: (such copy not constituting notice to Developer)

Darrow Everett, LLP  
c/o Keith E. Phillis, Esq.  
1 Turks Head Place, Suite 1200  
Providence, RI 02903

To: Town of Spencer  
157 Main Street  
Spencer, MA 01562  
ATTN: Town Administrator

With a copy of the notice to be delivered to the same address set forth above, to the attention of the Board of Selectmen (ATTN: Board of Selectmen)

To: Property Owner  
Tammy L. Lemenager, Trustee  
Daniel J. Lemenager, Trustee  
Lemenager Realty Trust  
19 Woodchuck Lane  
Spencer, MA 0162

Any such addresses for the giving of notices may be changed by either Party by giving written notice as provided above to the other Parties. Notice given by counsel to one or more Parties shall be effective as notice from the Party represented by such counsel.

10. Applicable Law. This Agreement will be governed and interpreted in accordance with the laws and regulations of the Commonwealth of Massachusetts, which are incorporated herein by reference. The Parties each consent to the jurisdiction of the Massachusetts courts, which shall have exclusive jurisdiction over any litigation arising under this Agreement, and applicable agencies of the Commonwealth of Massachusetts regarding any and all matters, including the interpretation or enforcement of this Agreement. Developer agrees that service of process may be effected on it by regular mail, return receipt requested, at the addresses indicated in Section 9, above, for Notices.

11. Good Faith. The Parties shall act in good faith to carry out and implement this Agreement and to resolve any disputes between them.

12. Force Majeure. The Parties recognize that there is the possibility during the term of this Agreement that all or a portion of the Property or Project may be damaged or destroyed or otherwise rendered unusable due to events beyond the control of either Party. These events are referred to as "Force Majeure." As used herein, Force Majeure includes, without limitation, the following events: (a) Acts of God including floods, hurricanes, earthquakes, fires or other natural calamity; or (b) Acts of War or other civil insurrection or terrorism.

In the event a Force Majeure occurs during the term of this Agreement rendering the Project unusable for the production of electricity for a period of more than ninety (90) consecutive days, then the Developer may, at its election, notify the Town of the existence of this condition, and of the Developer's decision whether it will rebuild (or make usable) the Project. If the Developer elects not to do so, then it may also notify the Town of its termination of this Agreement and the Project and all real and personal property will thereafter be assessed and taxed as though this Agreement does not exist. Notwithstanding the foregoing and any Force Majeure, Developer shall continue to make all payments required under this Agreement without any reduction unless and until this Agreement is terminated, if at all, in accordance with this Section 12.

13. Covenants/Representations/Warranties of Developer and Property Owner.

a. Developer here by covenants, represents and warrants as follows:

i. During the term of the Agreement, except as expressly provided for herein the Developer will not do any of the following:

- 1) seek to invalidate this Agreement;
- 2) fail to pay the Town all amounts due hereunder when due in accordance with the terms of this Agreement.
- 3) seek, for any reason, an abatement or reduction of any of the amounts assessed in accordance with the terms of this Agreement, except as may be expressly provided herein;
- 4) convey by sale, lease or otherwise any interest it may have in the Project or Property, including without limitation a leasehold interest in the Property, to any tax-exempt entity or organization, including without limitation a charitable organization pursuant to M.G.L. c. 59, § 5 (Third), unless, in the Town's sole discretion, the entity or organization agrees to take assignment of and comply with all obligations set forth in this Agreement, or Developer pays to the Town, in a single lump sum, all remaining payments under this Agreement at a "net present value" amount reasonably satisfactory to the Town.

b. The Developer further represents and warrants:

i. It is a corporation or other business entity duly organized, validly existing and in good standing under the laws of the state in which it was formed, and if a foreign business entity, is registered with the Massachusetts Secretary of State, and has full power and authority to carry on its business as it is now being conducted.

ii. This Agreement constitutes the legal, valid and binding obligation of the Developer enforceable in accordance with its terms, except to the extent that the enforceability may be limited by applicable bankruptcy, insolvency or other laws affecting other enforcement of creditors' rights generally or by general equitable principles.

iii. It has taken all necessary action to authorize and approve the execution and delivery of this Agreement.

iv. None of the documents or information furnished by or on behalf of the Developer to the Town in connection with negotiation and execution of this Agreement contains any untrue statement of a material fact or omits to state any material fact required to be stated therein, or omits any material fact necessary to ensure that the statements contained in this Agreement or such documents or information are not false or misleading.

v. The person executing this Agreement on behalf of the Developer has the full power and authority to bind it to each and every provision of this Agreement.

vi. For the purpose of M.G.L. c. 59, § 38H(b), the Developer is a "generation company" or "wholesale generation company" as those terms are used and defined in M.G.L. c. 59, § 38H(b) and M.G.L. c. 164, § 1.

vii. Developer is not a "manufacturing corporation" or "limited liability company engaged in manufacturing" under M.G.L. c. 59, § 5(16)(3).

c. Property Owner covenants, represents and warrants:

i. It is a corporation or other business entity duly organized, validly existing and in good standing under the laws of the state in which it was formed, and if a foreign business entity, it is registered with the Massachusetts Secretary of State, and has full power and authority to carry on its business as it is now being conducted.

ii. This Agreement constitutes the legal, valid and binding obligation of Property Owner enforceable in accordance with its terms, except to the extent that the enforceability may be limited by applicable bankruptcy, insolvency or other laws affecting other enforcement of creditors' rights generally or by general equitable principles.

iii. It has taken all necessary action to authorize and approve the

execution and delivery of this Agreement.

iv. The person executing this Agreement on behalf of Property Owner has the full power and authority to bind it to each and every provision of this Agreement.

v. The performance of Developer's obligations under this Agreement will not violate or result in a breach or default of any agreement or instrument to which Property Owner is a party or to which Property Owner is otherwise bound.

vi. Property Owner is the owner of the fee interest in the Property, and has leased the Property in whole or in part to Developer for the installation, operation and maintenance of the Project.

vii. Property Owner will not, during the term of this Agreement, seek, for any reason, an abatement or reduction of any of the payments in lieu of taxes assessed in accordance with the terms of this Agreement, except as may be expressly provided herein.

14. Determination of Illegality. The Parties understand and agree that this Agreement shall be void and that no portion of this Agreement shall be enforceable, if (a) this Agreement, or any material portion of this Agreement, is determined or declared by a court having jurisdiction to be illegal, void, or unenforceable; or (b) the Developer is determined or declared by a court or agency having jurisdiction not a "generation company" or "wholesale generation company" as those terms are used and defined in M.G.L. c. 59, § 38H(b), and M.G.L. c. 164, § 1. In such event, any payments previously made by Developer shall not be reimbursed to Developer and shall be, and remain, the property of the Town, and shall be deemed made in full satisfaction of the taxes in lieu of which they were made.

15. Subject to Approval. Notwithstanding anything to the contrary herein, this Agreement is subject to approval by the Town acting by a vote of its Town Meeting at Spring (2017) Town Meeting and Board of Selectmen.

16. No Other Application. Notwithstanding anything to the contrary herein, other than real and personal property taxes for the Project and Property for which the Developer makes payments of taxes under this Agreement, the Developer and/or Property Owner, as the case may be, shall pay, and this Agreement shall not apply to, any and all other fees, charges, assessments, taxes and betterments for which the Developer or the owner of the Property is responsible, including, but not limited to, taxes for personal property not included in the Project, and any real estate taxes for buildings or other things affixed to the Property and constituting real property under M.G.L. c. 59, § 2A(a); provided, however, that Developer and/or Property Owner may exercise any rights they have at law to request an abatement of the aforementioned fees, charges, assessments, taxes and betterments not included in this Agreement. In addition, the Property Owner shall be responsible to make and continue to make all real estate taxes for the Property up

to and including the Commencement Date.

17. Termination by Town. Notwithstanding anything to the contrary in this Agreement, the Town may terminate this Agreement on thirty (30) days written notice to Developer if:

- a. The Developer fails to make timely payments required under this Agreement, unless such payment is received by the Town within the 30-day notice period with interest as stated in this Agreement, provided, however, that the Town may nonetheless terminate this Agreement if such failure occurs more than three times in any rolling 365-day period, even if each such failure is cured within the 30-day notice period;
- b. The Developer or the person(s) or entity(ies) that owns all of the ownership interests in Developer has filed, or has had filed against it, a petition in Bankruptcy, or is otherwise insolvent;
- c. The Developer otherwise materially breaches this Agreement, unless such breach is cured within the 30-day notice period, including payment to the Town of any damages arising from such breach, provided, however, that the Town may nonetheless terminate this Agreement if Developer materially breaches this Agreement more than three times in any rolling 365-day period, even if each such breach is cured within the 30-day notice period; and/or
- d. The Developer's representations set forth in Paragraph 13 were untrue, inaccurate, or incomplete in material respects at the time they were made.

18. Assignment by Developer.

a. Developer shall have the absolute right at any time and from time to time, without the Town's prior written consent or approval (but with prior written notice to Town) to (i) mortgage, encumber, hypothecate, or collaterally assign its right, title or interest under this Agreement to or (ii) enter into a sale-leaseback financing transaction with any financial institution or other person or entity that from time to time provides financing for some or all of the Property or the Project (such institution, person or entity, collectively with any security or collateral agent, indenture trustee, loan trustee or participating or syndicated lender involved in whole or in part in such financing, and their respective representatives, successors and assigns a "Financing Party"). Developer shall promptly provide the notice information of Financing Party when it becomes available to Developer. Upon, and as a condition precedent of, the exercise of its rights under clause (ii) of this section, Developer shall cure any and all defaults of this Agreement by Developer existing as of the date thereof.

b. Any Financing Party that holds an interest, lien or security interest in this Agreement solely for security purposes, shall have no obligation or liability under this Agreement for obligations of the Developer arising prior to the time such Financing Party forecloses on its collateral assignment of the Agreement and directly succeeds to the capacity of Developer hereunder, or otherwise assumes Developer's obligations hereunder.

c. Developer may otherwise assign, or otherwise transfer its right, title or interest under this Agreement at any time and from time to time, upon the express, advance written consent of the Town, whose consent or approval shall not unreasonably be withheld, to any Creditworthy person or entity. "Creditworthy" means a person or entity that has a net worth which equals or exceeds the net worth of Developer at the time of the proposed transfer or assignment. In the event Developer desires to effect an assignment or transfer under this Section 18(c), Developer shall send written notice to the Town not less than 30 days prior to the anticipated date of such transfer or assignment, which notice shall include the name, address and other contact information for the proposed assignee or transferee and detailed financial information regarding such person or entity. Upon, and as a condition precedent of, making any such assignment or transfer, Developer shall cure any and all defaults of this Agreement by Developer existing as of the date thereof. Notwithstanding the foregoing, by making any assignment, sale or transfer under Sections 18(a)(ii) or 18(c), Developer shall be deemed to have represented and warranted that the assignee or transferee has, at the time of the assignment or transfer, the financial ability to comply with all obligations under this Agreement.

d. All covenants, agreements, terms and conditions contained in this Agreement shall apply to and be binding upon the Parties, their permitted assigns and successors.

19. Payment of Town Costs. Upon execution of this Agreement and its ratification by Town Meeting, the Developer shall pay the Town by bank or certified check, or wire transfer, the lump-sum amount of \$5,000, representing payment of costs and expenses, including attorneys' fees, incurred by the Town in the negotiation of this Agreement.

20. Developer shall provide its federal tax identification number upon execution of this Agreement, which the Town shall use solely for purposes relating to this Agreement.

Executed under seal by the undersigned as of the day and year first written above, each of whom represents that it is fully and duly authorized to act on behalf of and bind its principals.

*[Signature Pages Follow]*

WOODCHUCK SOLAR, LLC

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

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

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

TOWN OF SPENCER, MASSACHUSETTS

By its Town Administrator:

By its Board of Assessors:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Property Owner: Lemenager Realty Trust

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

By: Daniel J. Lemenager as Co-Trustee

Title: Co-Trustee, LemenagerRealtyTrust

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

By: Tammy L. Lemenager as Co-Trustee

Title: Co-Trustee, LemenagerRealtyTrust



EXHIBIT A  
THE PROPERTY



[illegible]

**EXHIBIT B  
THE INVENTORY**

<b>ACTUAL EQUIPMENT COSTS - Woodchuck - Spencer</b>				
<b>Project Name</b> Woodchuck <b>Street</b> 59 Donnelly Road <b>Town, State, Zip</b> Spencer, MA 01562 <b>Date of <u>Revision</u></b> 11/10/2016				
REFERENCE #	DESCRIPTION	FURNISHED BY	QUANTITY	TOTAL COST
1	Trina Solar - TSM-DD14A(II)	Pro-Tech Energy	4140	\$610,236
2	Combiner Solectria - ARCCOM-M-PS-24X, 288A	Pro-Tech Energy	10	\$19,700
3	Solectria SGI-500XTM-380	Pro-Tech Energy	2	\$131,320
4	1000kva Transformer	Pro-Tech Energy	1	\$29,400
5	TAVRIDA Pole Mounted Recloser w/SEL-651 Relay	Pro-Tech Energy	1	\$21,000
6	15kV Pole Mounted Switch	Pro-Tech Energy	1	\$3,715
7	7.5kva XFMR MPZ	Pro-Tech Energy	1	\$2,525
8	Neutral Ground Reactor - 20ohm	Pro-Tech Energy	1	\$7,555
9	Locus Energy DAS	Pro-Tech Energy	1	\$12,150
10	Racking Terra Smart	Pro-Tech Energy	1	\$235,904
<b>TOTAL NET EQUIPMENT COSTS</b>				<b>\$1,073,505</b>

EXHIBIT C  
PERSONAL PROPERTY DEPRECIATION & VALUATION SCHEDULE  
AS OF THE FIRST FISCAL TAX YEAR OF THIS AGREEMENT

<b>PERSONAL PROPERTY DEPRECIATION &amp; VALUATION SCHEDULE</b>			
<b>Year</b>	<b>Depreciation</b>	<b>Total Depreciation</b>	<b>Value</b>
1	0.000%	0.000%	\$ 1,073,505
2	6.000%	6.000%	\$ 1,009,095
3	6.000%	12.000%	\$ 944,684
4	6.000%	18.000%	\$ 880,274
5	6.000%	24.000%	\$ 815,864
6	6.000%	30.000%	\$ 751,454
7	6.000%	36.000%	\$ 687,043
8	6.000%	42.000%	\$ 622,633
9	6.000%	48.000%	\$ 558,223
10	6.000%	54.000%	\$ 493,812
11	6.000%	60.000%	\$ 429,402
12	1.000%	61.000%	\$ 418,667
13	1.000%	62.000%	\$ 407,932
14	1.000%	63.000%	\$ 397,197
15	1.000%	64.000%	\$ 386,462
16	1.000%	65.000%	\$ 375,727
17	1.000%	66.000%	\$ 364,992
18	1.000%	67.000%	\$ 354,257
19	1.000%	68.000%	\$ 343,522
20	1.000%	69.000%	\$ 332,787

EXHIBIT C (continued)  
LAND VALUATION SCHEDULE  
AS OF THE FIRST FISCAL TAX YEAR OF THIS AGREEMENT

LAND VALUATION SCHEDULE	
Year	Fixed Valuation
1	275,000
2	275,000
3	275,000
4	275,000
5	275,000
6	275,000
7	275,000
8	275,000
9	275,000
10	275,000
11	275,000
12	275,000
13	275,000
14	275,000
15	275,000
16	275,000
17	275,000
18	275,000
19	275,000
20	275,000

## **ADDENDUM NO. 2**

**To:** Prospective Respondents

**From:** Steven J. Tyler, P.E., Superintendent, Spencer Utilities & Facilities Office

**Date:** September 12, 2017

**Re:** **ADDENDUM NO. 2 - RFP for Land Lease for Solar Photovoltaic Project at the Spencer Landfill – Response to Questions**

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The following contract amendments are hereby incorporated into the above referenced contract bid documents.

### **RFP RESPONSE DUE DATE & DELIVERY LOCATIONS**

**REVISED:** Response Due Date: September 28, 2017, no later than 2:00 PM at the Spencer Water Dept./U&F Office, 3 Old Meadow Road, Spencer.

### **RFP AMENDMENTS**

None

### **RFP QUESTIONS AND ANSWERS**

Q: At pre-bid meeting it was discussed that CAD-based files used for the RFP may be available. Will you be able to make available CAD-based topo data for the site?

A: Below we have included a link to the compiled CADD background data reflected on the drawings included in the RFP documents. The information is preliminary and developed from database information for planning purposes only. Neither the Town nor F&O guarantee the contents nor accuracy of the CADD files. They are NOT suitable for final design or permitting purposes. Use at your own risk. The selected solar developer shall be responsible for performing a comprehensive site survey for the final design and permitting in conformance with all applicable requirements.

[Download of CADD Backgrounds](https://fando.filetransfers.net/downloadPublic/taqt2k75c25nadg) (<https://fando.filetransfers.net/downloadPublic/taqt2k75c25nadg>)

Q: Can the town obtain and release Fuss & O'Neill's (F&O) CAD files for the project (Page 64 of the RFP in CAD)? This will allow developers to operate off of a uniform base plan and enable the town to receive the most refined proposals. This is particularly relevant in the context of working with topography, gas vents, and determining the extent of any tree clearing within wetland buffer regions.

A: Below we have included a link to the compiled CADD background data reflected on the drawings included in the RFP documents. The information is preliminary and developed from database information for planning purposes only. Neither the Town nor F&O guarantee the contents nor accuracy of the CADD files. They are NOT suitable for final design or permitting purposes. Use at your own risk. The selected solar developer shall be responsible for performing a comprehensive site survey for the final design and permitting in conformance with all applicable requirements.

[Download of CADD Backgrounds](https://fando.filetransfers.net/downloadPublic/taqt2k75c25nadg) (<https://fando.filetransfers.net/downloadPublic/taqt2k75c25nadg>)

Q: We notice that racks are located throughout the regions of a drainage swale on the site. Can Fuss & O'Neill confirm this will not interfere with the operation and maintenance plan of the landfill facility? Can F&O confirm construction in that area would not require a wetland permit of some sort?

A: Racks are acceptable at swales as long as all drainage requirements are met to the satisfaction of the Town and MassDEP. Note that the drainage facilities shall be maintained by the Respondent as noted on B.2 of the RFP (p.7). The respondent shall be responsible for obtaining permits and approvals in accordance with Part E.2 of the RFP (p.11).

Q: Please confirm whether or not the access gate on the south end of the solar facility in F&O's plans is required.

A: A gate is required on the south side of facility. The final layout shall be determined during permitting and approval stage.

Q: On Page 13, Number 5, it appears that the town requires the project to be considered under prevailing wage due to a net metering agreement with the town. Because the project is not net metering to the town, does that town still believe this project to involve prevailing wage?

A: The Massachusetts Department of Labor Standards has provided an opinion that the project as a whole will trigger prevailing wage requirements, regardless of the net metering agreement (or lack thereof). A copy is attached. Refer to the attached email from John Ronan dated 9/11/2017.

Q: Please confirm that the payment of taxes for the land, as required in the RFP, will be included under the PILOT agreement, rather than separate payment.

~~A: Confirmed.~~

**Superseded. See Addendum No. 3**

Q: Was there a topo map done at the time the landfill was capped? If so, could you provide?

A: A copy of the closure As-Built (1989) is attached.

Q: Can you provide a copy of the decommissioning report and any information regarding location of wells, gas vents and their clearance requirements?

A: Site Plan indicating vents and well locations was included with Addendum No. 1. A minimum 10' gas vent radius shall be provided as indicated on the Concept Site Plan included as Attachment D of the RFP. The groundwater wells are located outside of the project area.

Q: What kind of cap does the landfill have?

A: The cover is nominally composed of 30" of soil, consisting of a minimum 12 inches of compacted low-permeability soil (i.e. silt) and 12" of gravelly sand supporting 6" loam and seed. As noted in the documents, some areas are known to have been restored or reshaped and confirmatory excavations have not been performed. A copy of the Final Closure Plan (1987) is attached.

Prepared by:

Steven J. Tyler, P.E., Superintendent  
Town of Spencer - Utilities and Facilities Office  
[styler@spencerma.gov](mailto:styler@spencerma.gov)

Enclosures / Attachments

Final Closure Plan (dated 1987, 5 pages)  
As-Built Plan (dated 11/28/1989, 1 page)  
Email from John Ronan dated 9/11/2017

Samuel Hemenway

---

Subject: FW: Solar Lease - prevailing wage clarification

From: Ronan, John (EOL) [mailto:John.Ronan@MassMail.State.MA.US]  
Sent: Monday, September 11, 2017 3:35 PM  
To: Samuel Hemenway  
Cc: McKinney, William (EOL); Falcone, Steve (EOL)  
Subject: RE: Solar Lease - prevailing wage clarification

Mr. Hemenway,

As I mentioned over the telephone, your project is probably going to implicate at least one prevailing wage law. In general all construction of public works done by or at the direction of a public entity will trigger the requirement to pay prevailing wages pursuant to M.G.L. c. 149, s. 27. The three requisite criteria in determining whether this law applies are 1. "Construction, 2. of "a public works" , and 3. "by or at the direction of a public entity".

In determining whether the project is being performed "by or at the direction of a public entity" the Department of Labor Standards (DLS) has adopted a "totality of the circumstances" test, and considers on a case-by-case basis, all relevant factors bearing on the issue including: whether the city or town sent out an RFP for the work, whether any public entities are parties or guarantors of the construction contract, whether the project is privately or publicly funded, the degree of control which a public entity retains over the design and construction process, and whether the public entity is required to approve any requisitions for payment, etc...

As you tell me that a town is "soliciting proposals" for "siting a solar energy system" on "town landfill property" there is direct input from the town on specifically what needs to be built on the town's property. Obviously then, the town will have both oversight and ownership.

Additionally, the winning developer will pay the town - presumably from the proceeds of its energy sales to the public grid – money to rent the public land. Thus, in some form or another, a portion of the revenues from the energy sales will be shared with the town (even if only in the form of lease payments). As I mentioned, MGL c. 164 sec. 137 (iv) states in relevant part, "any renewable energy project which is part of a power purchase agreement or net metering agreement ...shall be subject to sections 26 to 27D, inclusive".

Thus, it appears from the few details I've heard, that your project will be subject to the Prevailing Wage Law.

I hope this information was helpful. If I can be of any further assistance, please do not hesitate to call me directly.

John H. Ronan  
General Counsel  
Department of Labor Standard  
19 Staniford Street, 2nd Floor  
Boston, MA  
(617) 626-6976



---

From: Samuel Hemenway [<mailto:shemenway@fando.com>]  
Sent: Thursday, September 07, 2017 5:43 PM  
To: Ronan, John (EOL)  
Subject: Solar Lease - prevailing wage clarification

Mr. Ronan,

Thanks for getting back. As discussed, our office is assisting a Massachusetts Town soliciting proposals from private solar developers to lease a Town landfill property for the purpose of siting a Solar Energy System, in order to provide a revenue stream to the Town in the form of lease payments. The Town will not finance, install, own, operate, or maintain the solar photovoltaic system on the Site.

I am writing for clarification as to whether prevailing wages apply to the project. The Town is not purchasing the energy, and is leasing the land to a private entity who will build the solar array. To be clear, the Town will NOT buy the energy from or have a net metering agreement related to the array. Furthermore, the Town will not own the equipment once constructed. The Town's financial incentive for the project will be lease payments for the land.

As you suggested, we reviewed MGL c. 164 sec. 137 (iv) and note the last statement (emphasis added) "...and (iv) any renewable energy project which is part of a power purchase agreement or net metering agreement in a program organized and administered under this section and considered to be public construction shall be subject to sections 26 to 27D, inclusive". This statement is not applicable to the proposed arrangement.

As we also briefly discussed, there are some additional physical requirements for the proponent (ie paving overlays etc.), but they don't alter the underlying intent for a lease arrangement between the parties.

Please let me know if you can provide a clarification on this issue.

Thanks,

Sam



Samuel S. Hemenway, PE  
Project Manager

Fuss & O'Neill, Inc | 317 Iron Horse Way, Suite 204 | Providence, RI 02908

401.861.3070 x4597 | [shemenway@fando.com](mailto:shemenway@fando.com) | cell: 401.447.5554

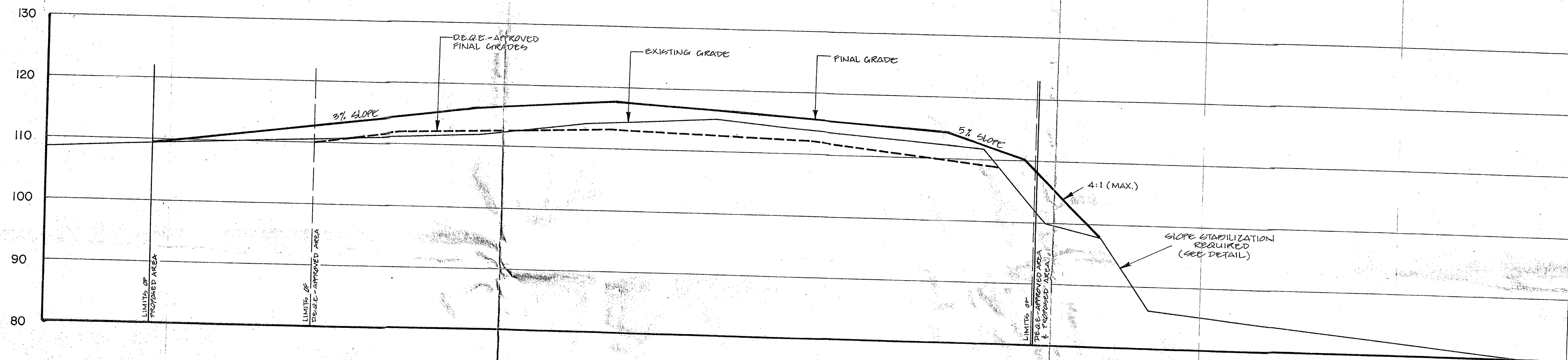
[www.fando.com](http://www.fando.com) | [twitter](#) | [facebook](#) | [linkedin](#)

This e-mail message and any files transmitted with it are the exclusive intellectual property of Fuss & O'Neill. This message and any attached files may be privileged and confidential. If you have received this message in error, please delete this e-mail and attached files and immediately notify Fuss & O'Neill by sending a reply e-mail to the sender of this message. Thank you.



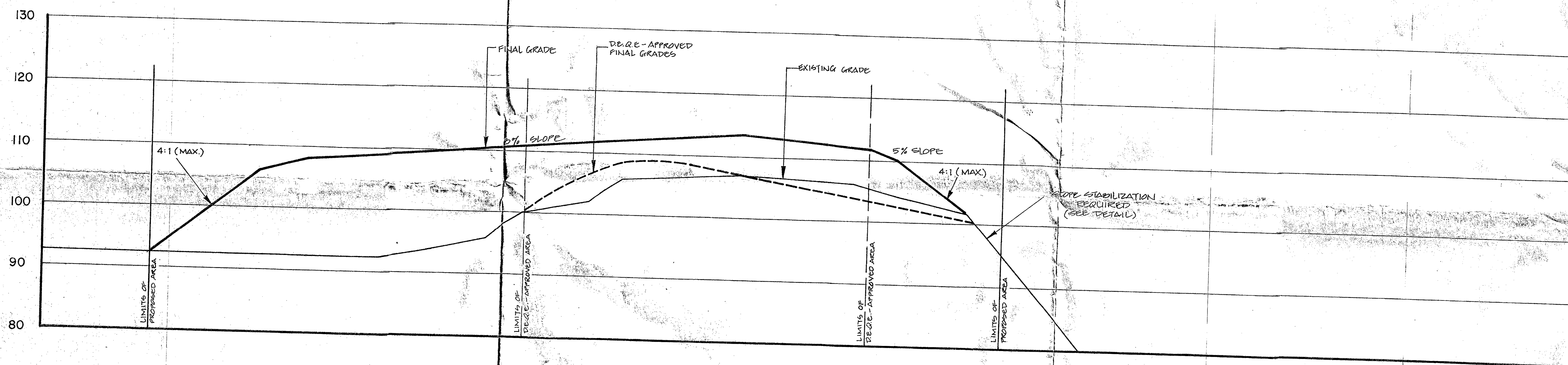






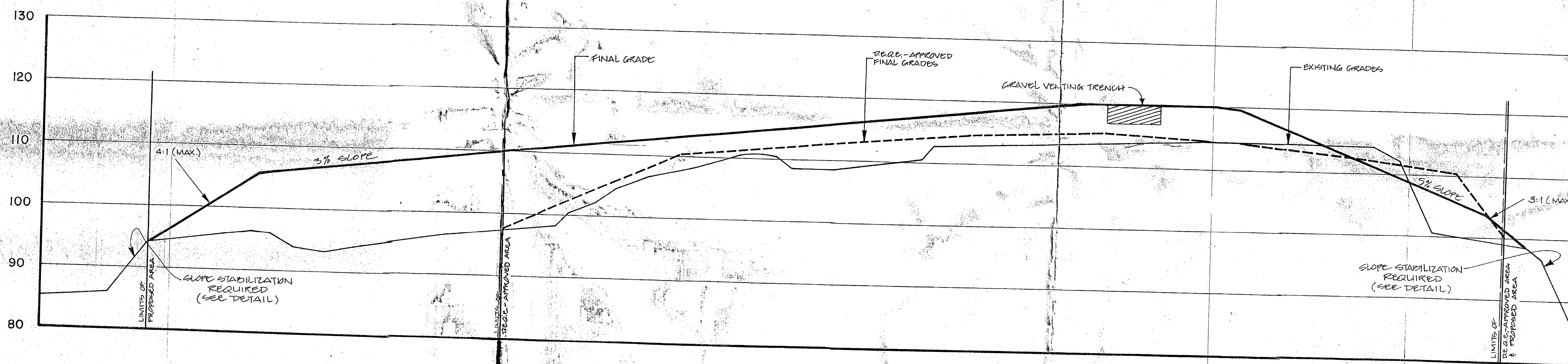
SECTION A - A'

SCALE: HORIZ. 1" = 40' VERT. 1" = 10'



SECTION B - B'

SCALE: HORIZ. 1" = 40' VERT. 1" = 10'



SECTION C - C'

SCALE: HORIZ. 1" = 40' VERT. 1" = 10'

### Estimated Annual Solid Waste Generated

11,000 PERSONS, 5 LBS/PERSON/DAY, 800 LBS/YD<sup>3</sup>  
 → 25,000 YD<sup>3</sup>/YEAR (27.5 TONS/DAY)  
 COVER MATERIAL AT 4:1 = 6,275 YD<sup>3</sup>/YEAR  
 TOTAL ANNUAL LANDFILL USE  
 CAPACITY REQUIRED - 31,275 YD<sup>3</sup>/YEAR  
 OR APPROXIMATELY 20 ACRE-Feet

### Estimated Landfill Capacity & Life

ESTIMATED PROPOSED ADDITIONAL CAPACITY - 32,000 YD<sup>3</sup> (12 MONTHS)  
 (SEPT. 1988 TO SEPT. 15, 1989)

### Post Closure Monitoring Plan

UPON COMPLETION OF THE INITIAL CAPPING OF THE LANDFILL SITE, THE TOWN OF SPENCER SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF A POST CLOSURE MONITORING PLAN. SITE INSPECTIONS SHALL BE CONDUCTED ON A MONTHLY BASIS AND ERODED, SETTLED OR NON-STABILIZED AREAS SHALL BE IMMEDIATELY CORRECTED. ACCUMULATED SEDIMENTS CAPTURED IN THE SEDIMENTATION BASINS SHALL BE REMOVED. DEBRIS OR BLOCKAGES IN THE DRAINAGE CANALS SHALL BE CORRECTED. GROUNDWATER MONITORING SHALL BE COMPLETED IN ACCORDANCE WITH THE REQUIRED HYDROGEOLOGICAL STUDY/MONITORING PROGRAM.

DESIGNED FINAL CLOSURE DATE/ADDED POST CLOSURE PLAN		8-12-87	R.M. COX
LANDFILL CAPACITY SET AT 32,000 CY		4-6-87	R.M. COX
REVISION DESCRIPTION:		DATE:	BY:

## FINAL CLOSURE PLAN

### CROSS - SECTIONS

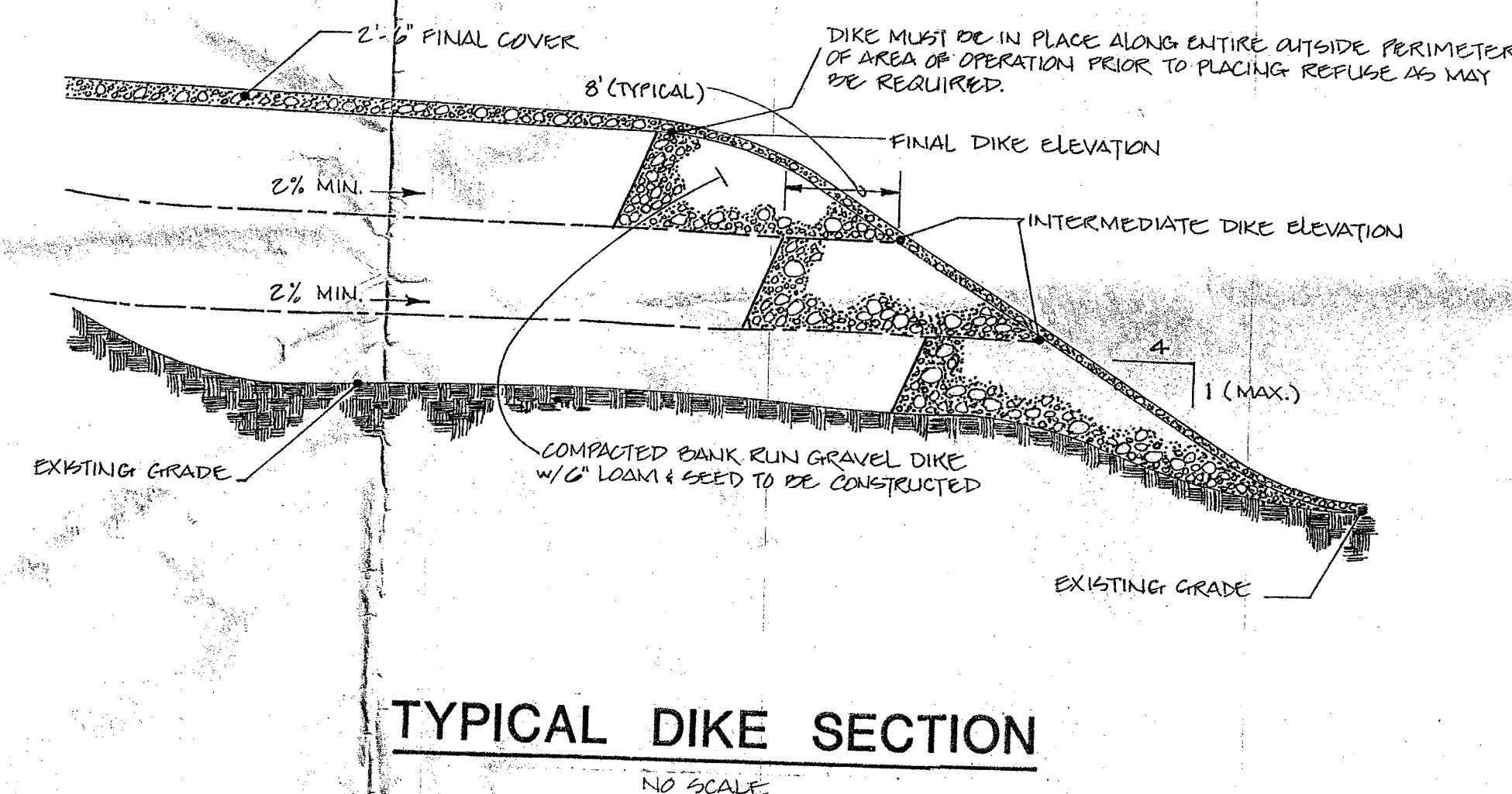
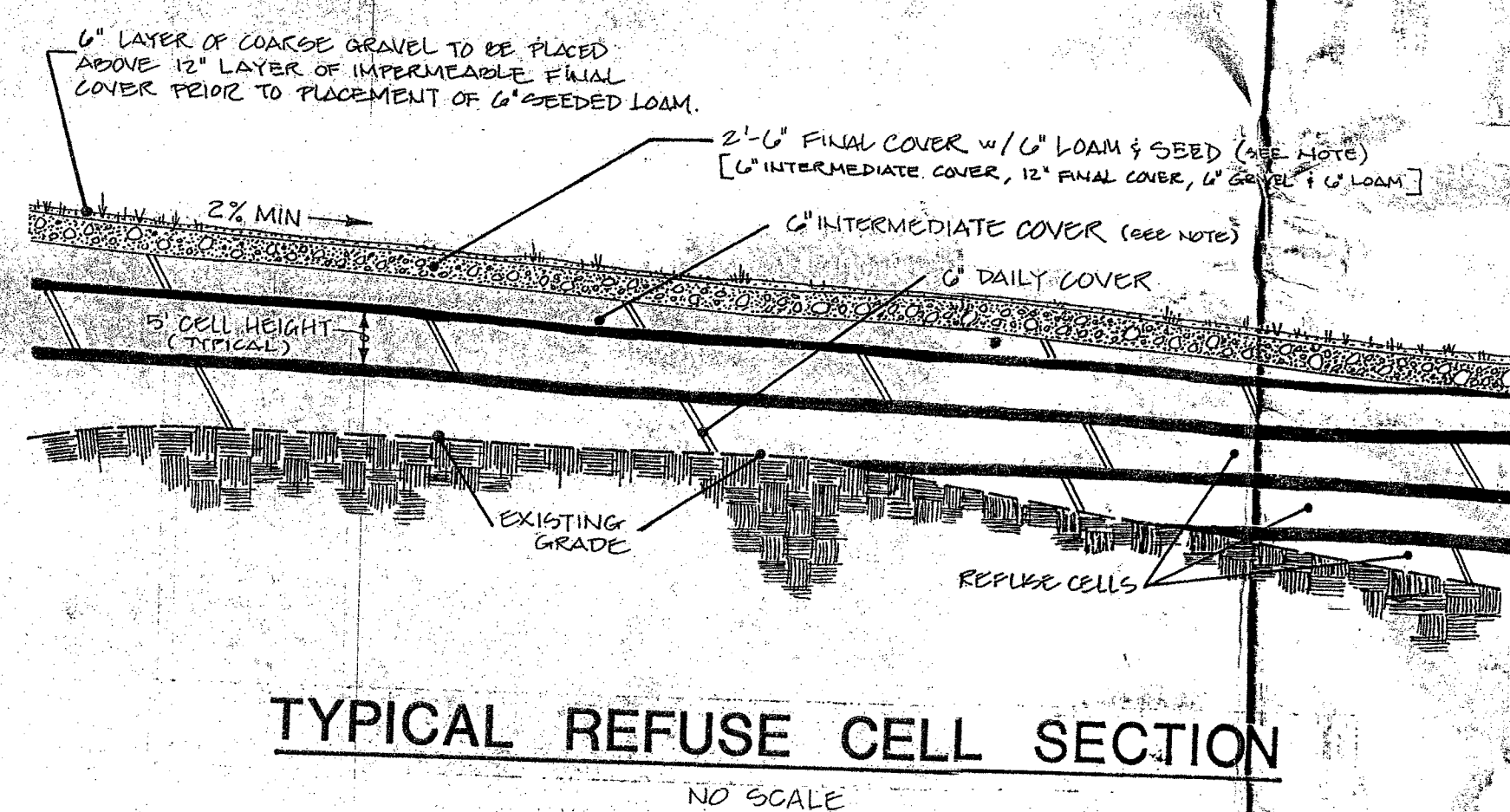
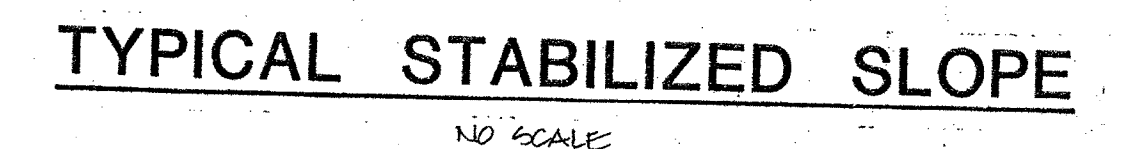
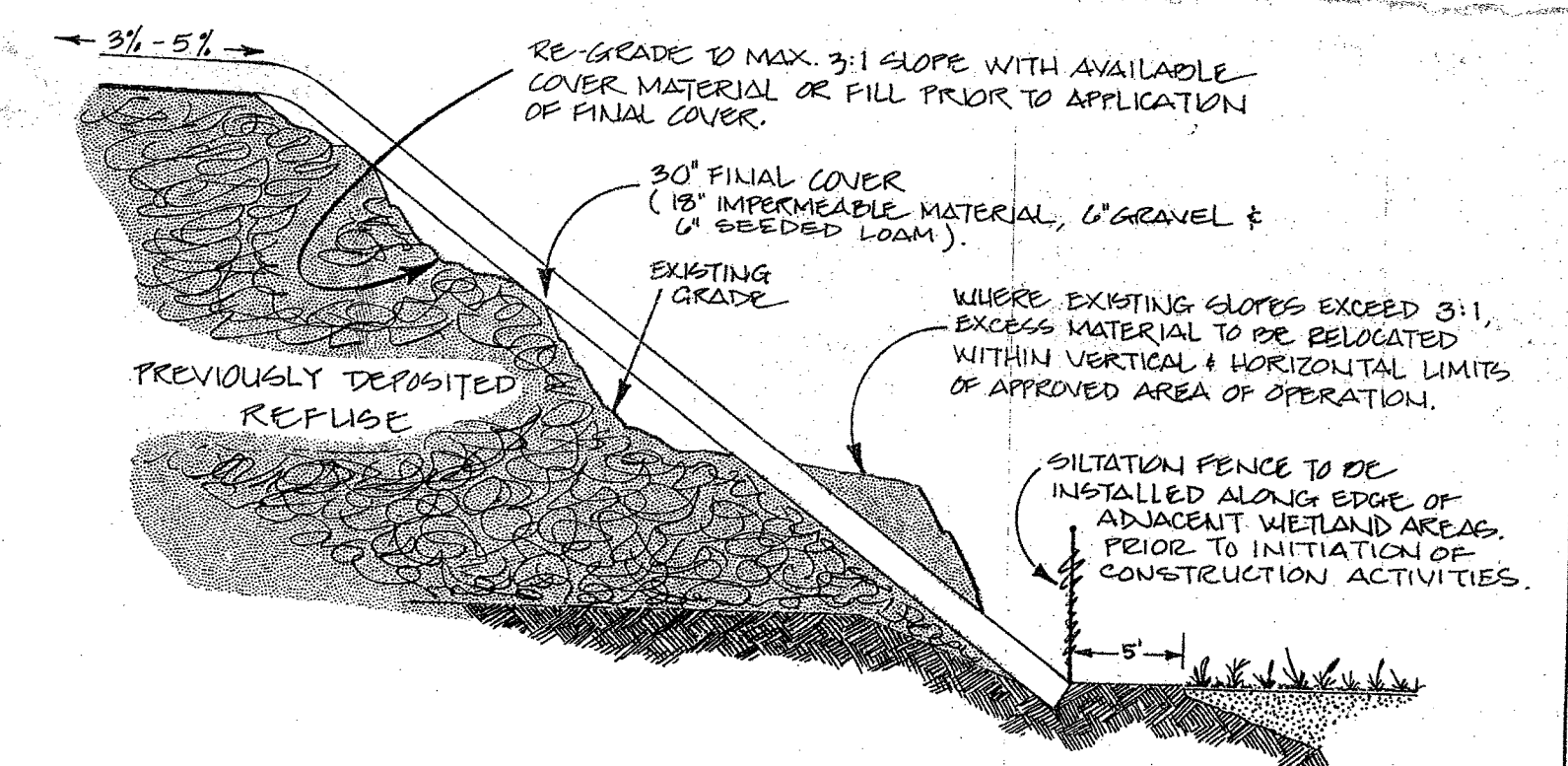
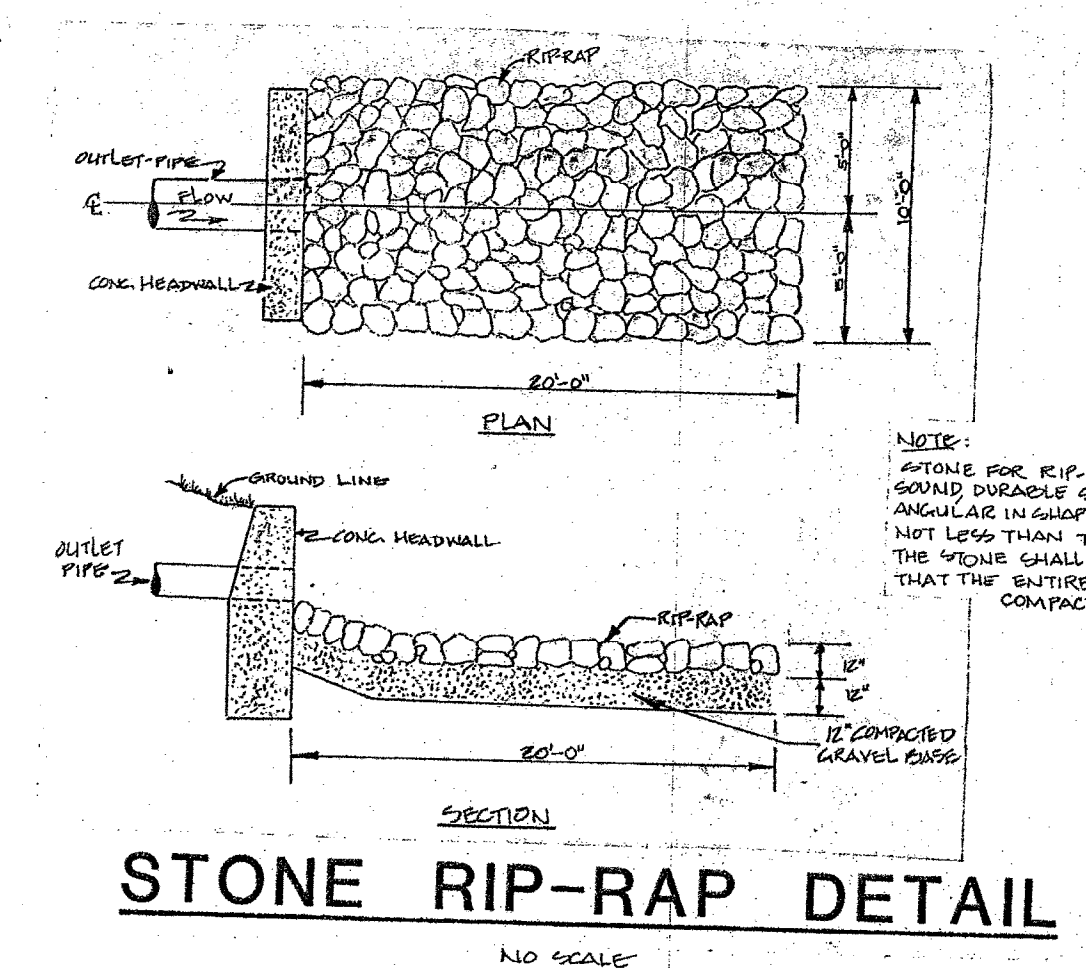
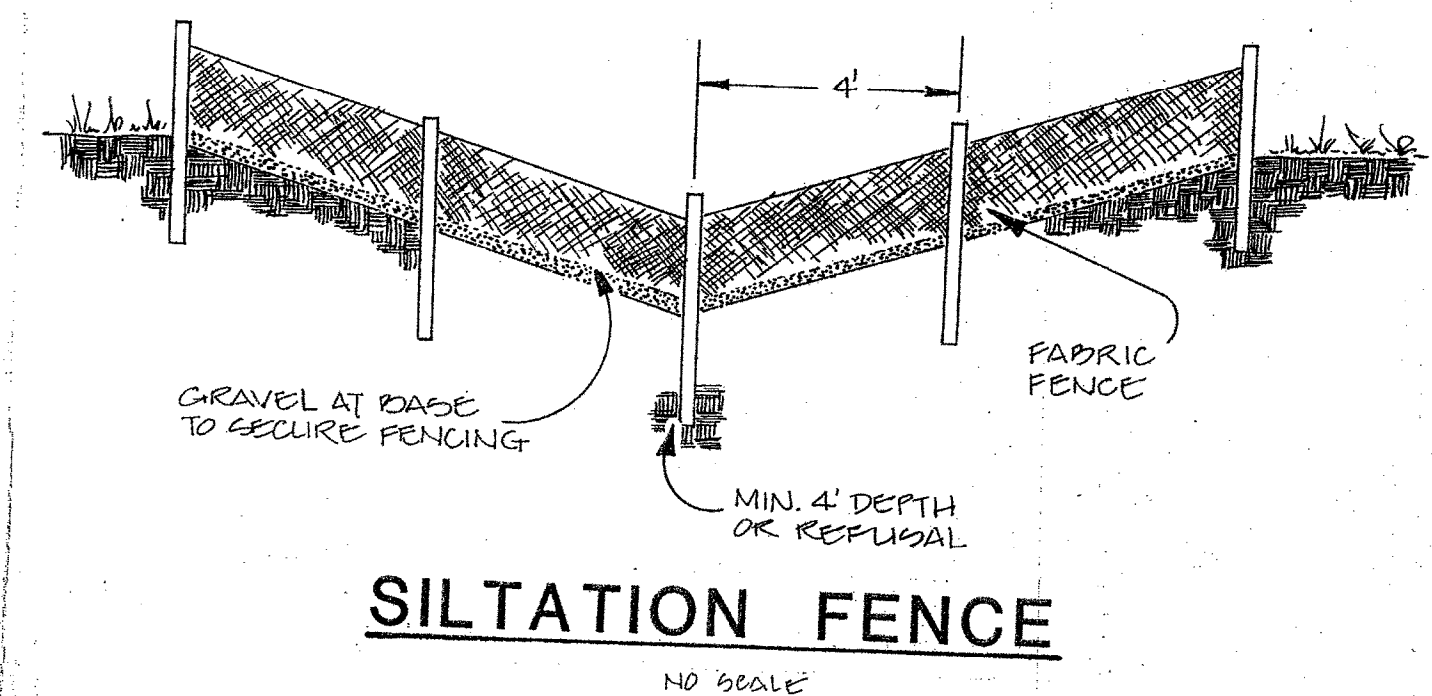
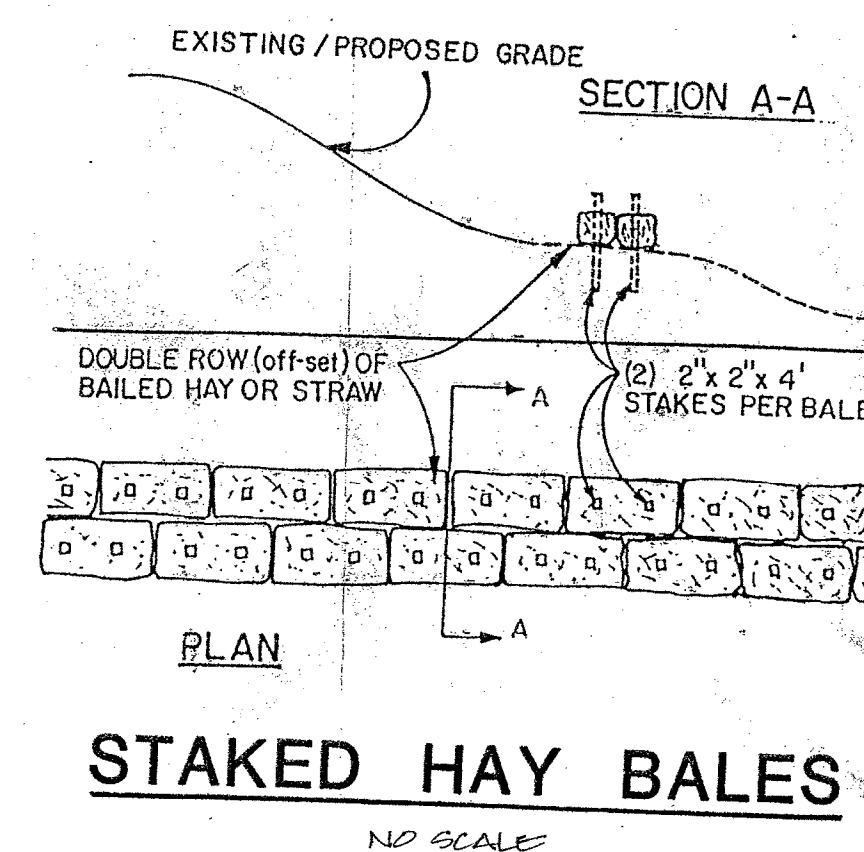
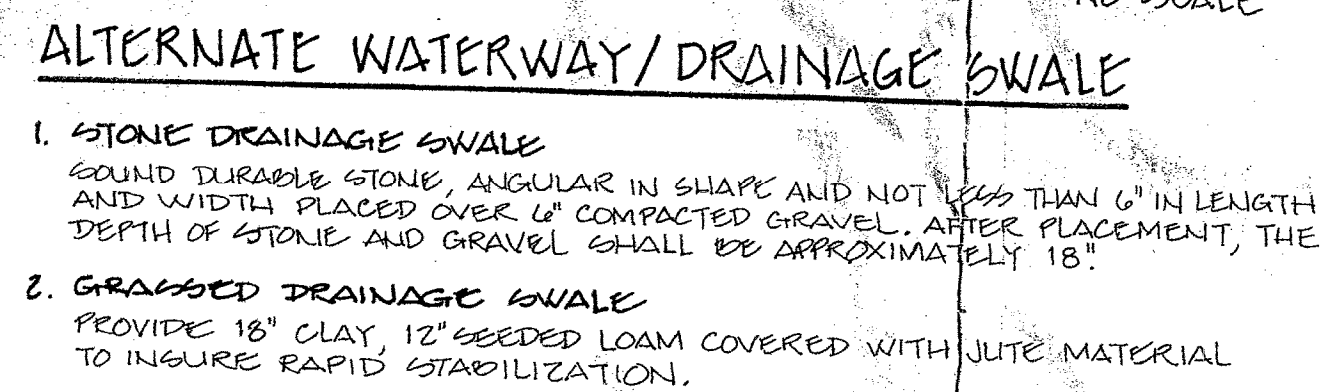
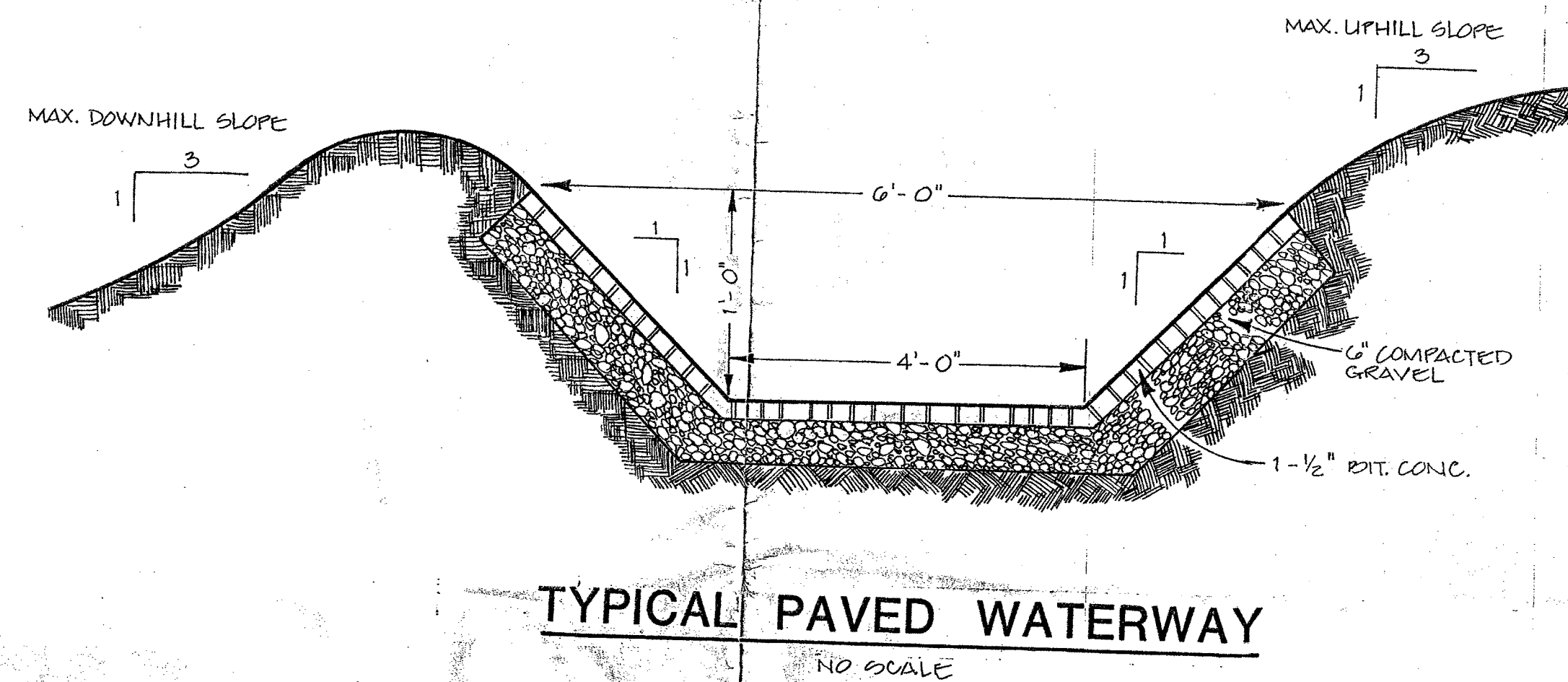
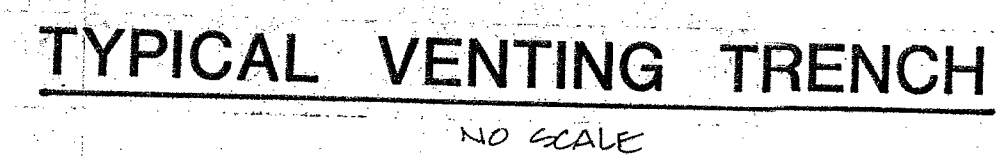
#### Sanitary Landfill Site

SOUTH SPENCER ROAD - SPENCER, MASSACHUSETTS

DESIGNED BY R.M.C.	DRAWN BY F.M.J.	DATE JAN. 5, 1987
SCALE AS NOTED	PLAN NO. 87-002	SHEET 2 OF 3

**Cox Environmental Engineering, Inc.**  
 P.O. Box 301 - Dresser Hill Road - Charlton, MA 01507  
 (617) 240-5105






ADDITIONAL CONSTRUCTION NOTES & DETAILS PROVIDED	8-12-87	R.M. COX
ADDITIONAL NOTES / DETAILS PROVIDED	4-6-87	R.M. COX
REVISION DESCRIPTION:	DATE:	BY:

# FINAL CLOSURE PLAN DETAILS

Sanitary Landfill Site  
SOUTH SPENCER ROAD - SPENCER, MASSACHUSETTS

 RICHARD M. DALY	DESIGNED BY	R.M.C.	DRAWN BY	F.M.J.	DATE	JAN 5, 1987
	SCALE	NONE	PLAN NO.	87-002	SHEET	3 of 3

## Cox Environmental Engineering, Inc.

**P.O. Box 301 - Dresser Hill Road - Charlton, MA 01507**  
**(617) 248-5185**

NOTE:

- INTERMEDIATE COVER SHALL HAVE A COEFFICIENT OF PERMEABILITY OF AT LEAST  $9 \times 10^{-7}$  CM/SEC.
- FINAL COVER SHALL HAVE A COEFFICIENT OF PERMEABILITY OF AT LEAST  $1 \times 10^{-7}$  CM/SEC.

# Cox Environmental Engineering, Inc.

P.O. Box 301 - Dresser Hill Road - Charlton, MA 01507  
(617) 248-5185

SEP 29 1987

September 25, 1987

Div. Solid/Hazardous Waste

Mr. Mark Begley  
Department of Environmental Quality Engineering  
75 Grove Street  
Worcester, MA 01605

Subject: Spencer, MA - Landfill Closure Plan  
          Submittal of Supplemental Information

Dear Mr. Begley:

In response to a recent telephone request from your office we submit the following statements which address your concerns regarding the plan entitled "Final Closure Plan - Sanitary Landfill Site - South Spencer Road - Spencer, Massachusetts" prepared by Cox Environmental Engineering, Inc. dated January 5, 1987, as revised April 6, 1987 and August 12, 1987.

1. All areas in which refuse was previously deposited are to be capped. If refuse is located beyond the limits of the area to be provided with an impermeable final cover, the refuse must be moved to an area to be capped or the area of final cover must be enlarged. A plan which indicates the actual area which is capped is to be submitted upon completion of the landfill closing.
2. If final grades are not consistent with the final proposed grades indicated on the submitted Final Closure Plan, a plan which indicates actual final grades will be submitted upon completion of the landfill closing.
3. A detail of the proposed sedimentation basin is attached.

Should you have any questions please do not hesitate to contact us.

Very Truly Yours,



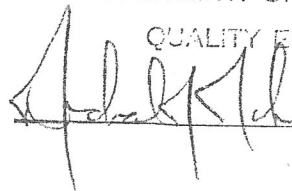
Richard M. Cox, P.E., President  
COX ENVIRONMENTAL ENGINEERING, INC.

Enclosure

cc: Board of Health

APPROVED

DEPARTMENT OF ENVIRONMENTAL  
QUALITY ENGINEERING

 Date 10/20/87

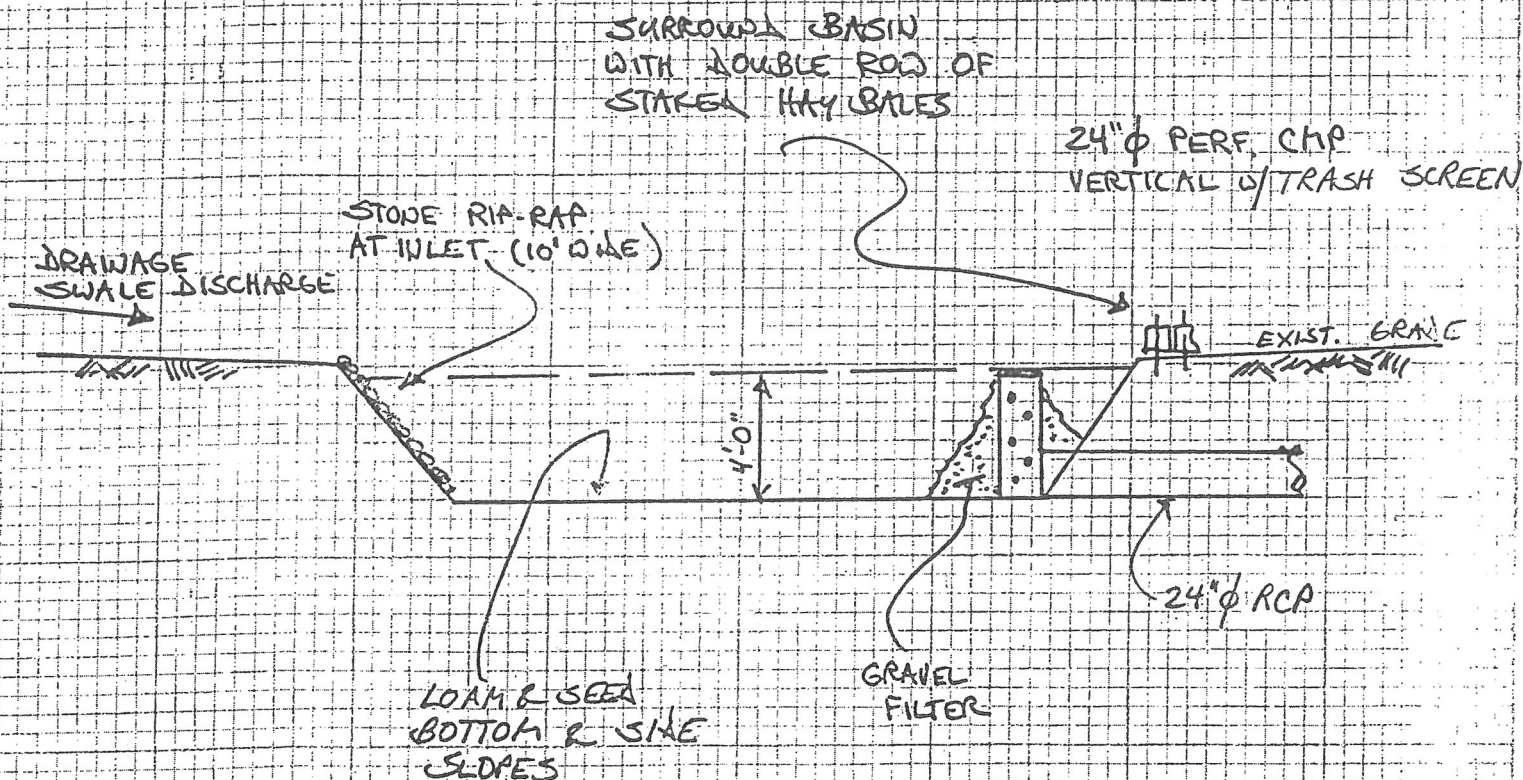


**Cox Environmental  
Engineering, Inc.**

P.O. Box 301 - Dresser Hill Road  
Charlton, MA 01507  
(617) 248-5185

Client/Project SPENCER SANITARY LANDFILL Date 9-25-87  
Subject: TYPICAL DETAIL OF Job No. \_\_\_\_\_  
PROPOSED SEDIMENTATION BASINS By R. M. COX  
S. SPENCER ROAD SITE - SPENCER, MA Sheet 1 Of 1

SEDIMENTATION BASIN  
TYPICAL DETAIL



CROSS - SECTION

NO - TO - SCALE

APPROVED

DEPARTMENT OF ENVIRONMENTAL

CONTROL

*[Signature]* 10/26/87



# "AS-BUILT" PLAN

## SANITARY LANDFILL SITE

### South Spencer Road

### SPENCER, MASSACHUSETTS

NOVEMBER 28, 1989

## NOTES:

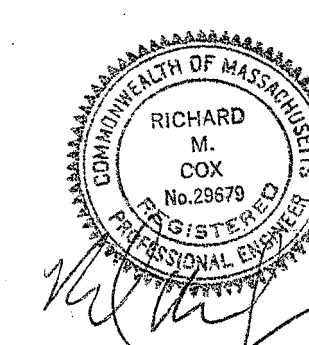
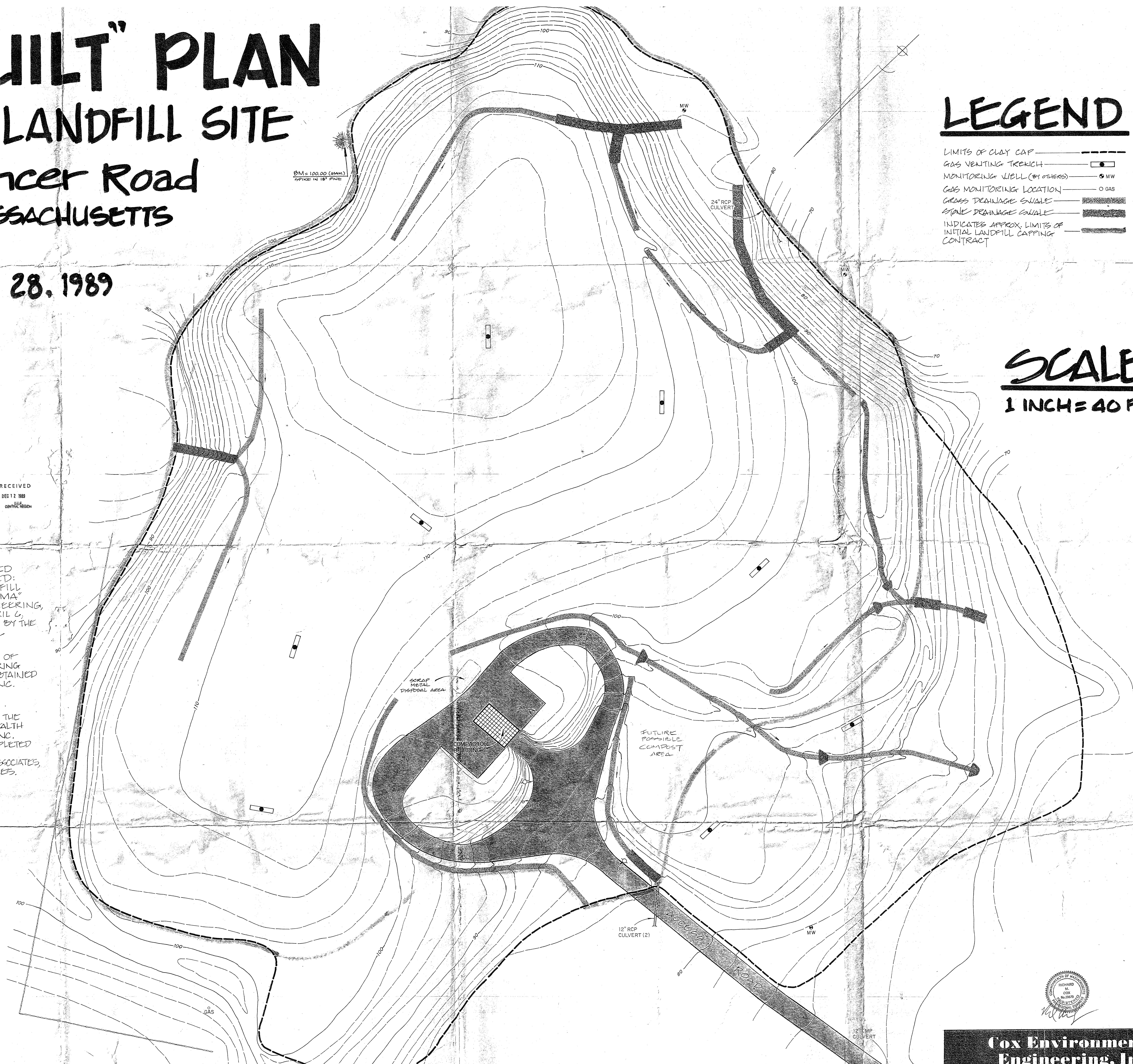
1. PREPARATION OF THIS "AS-BUILT" PLAN IS REQUIRED DUE TO THE FACT THAT FINAL GRADES DIFFER FROM THE FINAL PROPOSED GRADES INDICATED IN THE PLAN ENTITLED: "FINAL CLOSURE PLAN - SANITARY LANDFILL SITE - SOUTH SPENCER ROAD - SPENCER, MA" PREPARED BY COX ENVIRONMENTAL ENGINEERING, INC. DATED: JANUARY 5, 1987, AS REVISED APRIL 6, 1987 AND AUGUST 12, 1987 AND AS APPROVED BY THE MASSACHUSETTS DEPT. OF ENVIRONMENTAL PROTECTION ON OCTOBER 20, 1987.
2. INDICATED FINAL GRADES AND THE LOCATION OF GAS VENTS, DRAINAGE SWALES, GAS MONITORING LOCATIONS AND EDGE OF CLAY CAP WERE OBTAINED BY COX ENVIRONMENTAL ENGINEERING, INC. DURING THE SUMMER OF 1989.
3. LANDFILL CLOSURE WAS COMPLETED BY DOUBLE D CONSTRUCTION CO., INC. UNDER THE SUPERVISION OF THE SPENCER BOARD OF HEALTH AND COX ENVIRONMENTAL ENGINEERING, INC. WORK WAS INITIATED IN MAY 1988 AND COMPLETED IN JULY 1989. SOIL TESTING WAS CONDUCTED BY CWD ASSOCIATES, INC. TOTAL AREA CAPPED EQUALS 25.6 ACRES.

RECEIVED  
DEC 12 1989  
LEE  
CONTROL ROOM

## LEGEND

LIMITS OF CLAY CAP ———  
GAS VENTING TRENCH ———  
MONITORING WELL (BY OTHERS) — MW  
GAS MONITORING LOCATION — GAS  
GRASS DRAINAGE SWALE ———  
STONE DRAINAGE SWALE ———  
INDICATES APPROX. LIMITS OF INITIAL LANDFILL CAPPING CONTRACT ———

**SCALE**  
1 INCH = 40 FEET



**Cox Environmental Engineering, Inc.**



### **ADDENDUM NO. 3**

**To:** Prospective Respondents

**From:** Steven J. Tyler, P.E., Superintendent, Spencer Utilities & Facilities Office

**Date:** September 20, 2017

**Re:** **ADDENDUM NO. 3 - RFP for Land Lease for Solar Photovoltaic Project at the Spencer Landfill – Response to Questions**

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The following contract amendments are hereby incorporated into the above referenced contract bid documents.

#### **RFP RESPONSE DUE DATE & DELIVERY LOCATION**

**REVISED: Response Due Date: September 28, 2017, no later than 2:00 PM at the Spencer Water Dept./U&F Office, 3 Old Meadow Road, Spencer.**

#### **RFP AMENDMENTS**

None

#### **RFP QUESTIONS AND ANSWERS**

Final questions received and responses provided in bold below. **Please be advised the responses below include our final clarification of the real property (land) tax question.**

Q: Can we expect the PILOT payment to be similar in value to that which was sent out in the addendum?

**A: Please read the question that was responded to in Addendum No. 1 that also provided/referenced the PILOT example to begin with. The PILOT example sent was NOT intended or said “to be similar in value”. Clearly the PILOT agreement attached to Addendum No. 1 was provided only as an example of how the PILOT would be calculated. We have no idea of the value of the betterments each of you may or may not propose. Clearly the PILOT payment is variable subject to the value of what is actually constructed.**

Q: On page 14, under Capital Finance Capability, the RFP notes that evidence of the ability to secure financing should be in the form of a commitment letter from the anticipated funding source. If we plan to internally finance our project, do we still require a letter?

**A: Please follow the instructions on the RFP to provide a letter of commitment from the anticipated funding source. If that source is “to internally finance the project” we feel confident that you can still come up with a commitment letter on your internal financial resources and how you plan to fund your proposed project.**

Q: On page 16, under Proposal Solar PV System, the design asked for preliminary drawings (one-line). Can you confirm what you would like to be included? Does the Town want a one-line diagram from an engineer, or can it be a preliminary site layout? Please provide more details on this.



**A: No, we will not provide more details. Please follow the instructions of the RFP and provide Preliminary design drawings as you see fit to present your proposal for consideration, evaluation and comparison. It is up to you to determine the level of detail, quality, level of completeness, etc. your desire and/or feel is necessary for your proposal.**

Q: Under Section E-3, "End of Term", the RFP states "At the end of the Term, the selected Respondent will retain ownership of the System and be required to remove the System." Then Article IV Section 4.2 of the Lease ("Term of Agreement") states "This Agreement may be extended for an additional term(s) under mutual agreement by both the Town and Tenant." Is the town open to allowing extensions of the agreement or a longer initial term.

**A: We are not able to speculate on varying or alternative terms. Please respond to and bid the RFP as written. Be sure to complete and return all required bid forms provided. The town requires a uniform bid response from all applicants. That is not to say that an intelligent discussion of other alternatives cannot be provided in some way within the context of the RFP requirements. Each's Vendor's RFP / bid response submittal must comply with RFP requirements.**

Q: The Agreement for Payments in Lieu of Real and Personal Property Taxes states that the Tenant will be responsible for both Real and Personal property taxes associated with this site, and provides example land values informing real property tax. Should we assume the \$275,000 Land Valuation from exhibit C, or should we assume some other land value? Our intent is to make sure we're assuming the right land value to calculate the PILOT.

**A: The PILOT example provided was from a privately owned parcel. Not to confuse things, because the Town owns the site, there will NOT be any "real property (land) tax" in the PILOT as there are with the private PILOT agreements on private land. There will be revenue for the Town in the form of the Lease payment and the tax PILOT will be for Personal Property only. This response supersedes and prior answers to the contrary regarding "real property (land) tax".**

Prepared by:

Steven J. Tyler, P.E., Superintendent  
Town of Spencer - Utilities and Facilities Office  
[styler@spencerma.gov](mailto:styler@spencerma.gov)

Enclosures / Attachments

Property Card (Vision#624) for 17 S Spencer Rd

Property Location: 17 SO SPENCER RD

MAP ID: R22/ 2 / /

Bldg Name:

State Use: 9300

Vision ID: 624

Account #

Bldg #: 1 of 1

Sec #: 1 of 1

Card 1 of 1

Print Date: 12/06/2016 10:06

CURRENT OWNER		TOPO.	UTILITIES	STRT./ROAD	LOCATION	CURRENT ASSESSMENT				346 SPENCER, MA										
TOWN OF SPENCER MEMORIAL TOWN HALL 157 MAIN ST  SPENCER, MA 01562 Additional Owners:						Description	Code	Appraised Value	Assessed Value											
						EXM LAND	9300	338,700	338,700											
						EXEMPT	9300	367,400	367,400											
		SUPPLEMENTAL DATA																		
		Other ID: SUB-DIV PHOTO WARD PREC.  GIS ID: F_518264_2906047			ASSOC PID#			Total		706,100	706,100	VISION								
RECORD OF OWNERSHIP		BK-VOL/PAGE	SALE DATE	q/u	v/i	SALE PRICE	V.C.	PREVIOUS ASSESSMENTS (HISTORY)												
TOWN OF SPENCER		04060/0137	03/28/1959				0	Yr.	Code	Assessed Value	Yr.	Code	Assessed Value	Yr.	Code	Assessed Value				
								2016	9300	333,600	2015	9300	338,500	2015	9300	338,500				
								2016	9300	372,000	2015	9300	377,000	2015	9300	377,000				
								Total:			705,600	Total:	715,500	Total:	715,500					
EXEMPTIONS			OTHER ASSESSMENTS				This signature acknowledges a visit by a Data Collector or Assessor													
Year	Type	Description	Amount	Code	Description	Number	Amount	Comm. Int.	APPRAISED VALUE SUMMARY											
									Appraised Bldg. Value (Card)								0			
Total:									Appraised XF (B) Value (Bldg)								0			
NBHD/ SUB		NBHD Name		Street Index Name		Tracing		Batch		Appraised OB (L) Value (Bldg)								367,400		
0001/A										Appraised Land Value (Bldg)								338,700		
NOTES																	Special Land Value		0	
TRANSFER STATION																	Total Appraised Parcel Value		706,100	
FILTER BED LAND																	Valuation Method:		C	
(18X16) SH1 IS CONCRETE																	Adjustment:		0	
Net Total Appraised Parcel Value																	706,100			
BUILDING PERMIT RECORD										VISIT/ CHANGE HISTORY										
Permit ID	Issue Date	Type	Description	Amount	Insp. Date	% Comp.	Date Comp.	Comments	Date	Type	IS	ID	Cd.	Purpose/Result						
16-271	10/04/2016	NC	New Construct	0		0		COLD STORAGE BUIL	08/22/2009			MW	00	Measur+Listed						
D-16-005	10/03/2016	DE	Demolish	20,000		100	10/17/2016	DEMO BUILDING	05/15/2008			MW	44	No Change Reinspectio						
08-184	09/09/2008	RS	Residential	396	08/22/2009	100	08/22/2009	UPDATE BUILDING	01/30/1999			MW	50	Cyclical visit						
									08/25/1987			AC	00	Measur+Listed						
LAND LINE VALUATION SECTION																				
B #	Use Code	Use Description	Zone	D	Front	Depth	Units	Unit Price	I. Factor	S.A.	Acre Disc	C. Factor	ST. Idx	Adj.	Notes- Adj	Special Pricing		S Adj Fact	Adj. Unit Price	Land Value
1	9300	Town of Spencer V	RR	01			60,000	SF	0.85	1.0000	6	1.0000	1.00	0.00		Spec Use	Spec Calc	1.00	0.85	51,000
1	9300	Town of Spencer V	RR	01			112.62	AC	3,500.00	0.7300	0	1.0000	1.00	0.00				1.00	2,555.00	287,700
Total Card Land Units:			114.00		AC		Parcel Total Land Area:			114 AC			Total Land Value:					338,700		

CONSTRUCTION DETAIL						CONSTRUCTION DETAIL (CONTINUED)																	
Element	Cd.	Ch.	Description			Element	Cd.	Ch.	Description														
Model	00		Vacant																				
				MIXED USE																			
				Code	Description			Percentage															
				9300	Town of Spencer V			100															
				COST/MARKET VALUATION																			
				Adj. Base Rate:			0.00																
				Replace Cost			0																
				AYB																			
				EYB			0																
				Dep Code																			
				Remodel Rating																			
				Year Remodeled																			
				Dep %																			
				Functional ObsInc																			
				External ObsInc																			
Cost Trend Factor			1																				
Condition																							
% Complete																							
Overall % Cond																							
Apprais Val																							
Dep % Ovr			0																				
Dep Ovr Comment																							
Misc Imp Ovr			0																				
Misc Imp Ovr Comment																							
Cost to Cure Ovr			0																				
Cost to Cure Ovr Comment																							
OB-OUTBUILDING & YARD ITEMS(L) / XF-BUILDING EXTRA FEATURES(B)																							
Code	Description	Sub	Sub Descript	L/B	Units	Unit Price	Yr	Gde	Dp Rt	Cnd	%Cnd	Apr Value											
SHD1	SHED FRAME			L	240	10.00	1988		0		40	1,000											
SHD1	SHED FRAME			L	288	10.00	1988		0		50	1,400											
	RECYCLING S			L	1	500,000.00	1988		1		100	365,000											
BUILDING SUB-AREA SUMMARY SECTION																							
Code	Description			Living Area		Gross Area		Eff. Area		Unit Cost		Undeprec. Value											
Ttl. Gross Liv/Lease Area:				0		0		0															

No Photo On Record



## **REQUEST FOR PROPOSALS**

### **SOLAR PHOTOVOLTAIC PROJECT AT SPENCER LANDFILL**

#### **Spencer, MA**

The Town of Spencer seeks proposals, pursuant to M.G.L. c. 30B, §16, Real Property Disposition, from solar energy developers (“**Respondents**”) to:

Lease land at Spencer Landfill, located at 17 South Spencer Road, Spencer, Massachusetts (“the Site”), pursuant to a Lease Agreement, a form of which is included in this RFP, and install, own, operate, and maintain thereon a solar photovoltaic energy system (“Solar Energy System” or “System”).

It is the desire of the Town to site a Solar Energy System for the benefit of the Town and the environment. This Request for Proposals is being issued to allow the Town to evaluate options and determine the projects and financial arrangements that best meet the Town’s interest. The Town notes that it is not seeking proposals for solar energy generation or net metering.

The Town will evaluate all proposals and reserves the right to select the proposal that provides the best economic solution, and the right to accept any bid even if the bid is not the lowest cost. Proposals will be evaluated against other proposals received. In addition to other rights reserved herein, the Town reserves the right to cancel this RFP in its discretion and to the fullest extent permitted by law.

**Pre-Bid Meeting --** The Town will hold a pre-bid meeting for all interested bidders on Tuesday, August 29, 2017 @ 2:00 PM beginning at the main entrance to the Spencer Transfer Station, located at 17 South Spencer Road in Spencer, MA.

**Questions -** All questions pertaining to this RFP should be made in writing to **Steven J. Tyler, P.E., Superintendent, Office of Utilities and Facilities**, no later than 8 days before the scheduled bid opening date. Any questions received after this time will not be considered for review. Prospective bidders should email questions and addendum acknowledgements to [tyler@spencerma.gov](mailto:tyler@spencerma.gov) with the subject line “Spencer Landfill Solar Project” for identification purposes.

**Proposals must be received by 9/21/2017, no later than 2:00 PM and shall be addressed to:**

Mr. Steven J. Tyler, P.E.  
Town of Spencer  
Office of Utilities and Facilities  
3 Old Meadow Road  
Spencer, Massachusetts 01562

All materials must be contained in a single envelope or package clearly labeled **Land Lease for Solar Photovoltaic Project at the Spencer Landfill**. Within each envelope or package, the Respondent shall



enclose a cover letter with the signature, name, and title of the person authorized to submit the proposal on behalf of the Respondent.

The Respondent's proposal shall include, in separate sealed envelopes, a "***Technical Proposal***" and a "***Price Proposal***."

- The ***Technical Proposal*** must include twelve (12) double-sided hard copies and an electronic copy on a CD-ROM or flash drive in Portable Document Format (PDF) and shall be placed in a sealed envelope within the outer package marked with the Respondent's ***company name***, and plainly marked in the lower left-hand corner: **"Land Lease for Solar Photovoltaic Project - Technical Proposal."**
- The ***Price Proposal*** must include six (6) double-sided hard copies and an electronic copy on a CD-ROM or flash drive in Portable Document Format (PDF) format, and shall be placed in a separate sealed envelope within the outer package marked with the Respondent's ***company name***, and plainly marked in the lower left-hand corner: **"Land Lease for Solar Photovoltaic Project - Price Proposal."**

All qualifications should be written in ink or typed. If there is any correction with whiteout, the person signing the statement of qualifications must initial the correction.

It is the Respondent's responsibility to see that its proposal is delivered within the time and at the place prescribed. The Town will open no proposals until the time set for opening. Proposals may be withdrawn upon written request (on the letterhead of the Respondent and signed by the person signing the proposal) and must be received prior to the Public Opening. Proposals may be modified in the same manner. No proposal or modification thereof received after the Public Opening will be considered.

Selected Respondents shall not discriminate against any employee or applicant for employment because of a physical or mental handicap, for any position for which the employee or applicant is qualified, and in the event of noncompliance, the Town may declare the selected Respondents in breach and take any necessary legal recourse including termination or cancellation of any contract awarded pursuant to this RFP.

A Respondent filing a proposal thereby certifies that 1) no officer, agent, or employee of the Town of Spencer has a pecuniary interest in the proposal or has participated in contract negotiations on the part of the Town; 2) the proposal is made in good faith without fraud, collusion, or connection of any kind with any other prospective Respondent for the same RFP; and 3) the prospective Respondent is competing solely on its own behalf without connection with, or obligation to, any undisclosed person or firm.

The Town of Spencer reserves the right to reject any and all bids, wholly or in part, or to accept any bid even if the bid is not the lowest cost, if it is deemed to be in the best interest of the municipality, to waive informalities deemed inconsequential and to make awards in a manner deemed to be in the town's best interest. Minority- and woman-owned businesses are encouraged to bid.



The RFP and supporting documents will be made available on the Town of Spencer website [spencerma.gov](http://spencerma.gov) (click “Bids” in lower left corner). **Registering and obtaining bid documents from the Spencer website is required.** If you have any problems obtaining the IFB online, contact the Office of Utilities and Facilities, 3 Old Meadow Road, Spencer, Massachusetts 01562, during weekday business hours from 8:00 a.m. until 5:00 p.m. Monday through Thursday, or by calling (508) 885-7525.

It is the Respondent’s responsibility to check prior to the Public Opening for any updates or addenda issued as a result of questions or changes needed in this RFP. A hard copy of the RFP and supporting documents will be available for review during normal business hours at the Town of Spencer Utilities and Facilities Office, located at 3 Old Meadow Road, 508-885-7525.

This RFP contains the following Attachments:

**Attachment A – Proposal Forms**

- Attachment A-1 – Certificate of Examination Form
- Attachment A-2 – Certificate of Non-Collusion
- Attachment A-3 – State Taxes Certification Clause
- Attachment A-4 – Disclosure of Beneficial Interests in Real Property Disclosure
- Attachment A-5 – Certification Regarding Debarment
- Attachment A-6 – Certificate of Authority
- Attachment A-7 – Proposer Minimum Requirements Checklist
- Attachment A-8 – Certificate of Compliance with Federal Immigration Law

**Attachment B – Pricing Bid Forms**

**Attachment C – Draft Lease Agreement**

**Attachment D – Property Assessment and Due Diligence Investigations,  
Solar Feasibility at Spencer Landfill & Appendices**

**Attachment E – Prevailing Wage Rates**

Anticipated Schedule:

Request for Proposals Issued	8/16/2017
Posting in the Central Register	8/16/2017
Pre-Bid Meeting	8/29/2017; 2:00 PM
Questions Due to the Town	9/13/2017; 2:00 PM
Responses to Questions/Addenda Issued by the Town	TBD
Proposals Due to the Town (See address requirements in RFP)	9/21/2017; 2:00 PM
Anticipated Interviews	10/2/2017-10/5/2017
Anticipated Selection of the Most Advantageous Proposal	10/16/2017
Presentation to Board of Selectmen	TBD



## REQUEST FOR PROPOSALS

### SOLAR PHOTOVOLTAIC PROJECT AT SPENCER LANDFILL

Spencer, MA

#### A. PURPOSE

This RFP is being issued for the Disposition of Real Property under M.G.L. c. 30B, §16. The goal of this RFP is to lease the Site for purposes of siting a Solar Energy System in order to provide a revenue stream to the Town in the form of lease payments.

The Town seeks proposals from entities in the business of developing solar energy generation facilities to finance, install, own, operate, and maintain the solar photovoltaic system on the Site as identified in this RFP. As owner of the Site, the Town will grant a Lease to the selected Respondent to allow the Respondent to undertake the project for the purposes, and subject to the conditions, set forth herein.

#### B. SCOPE OF WORK

##### 1. Solar PV System

The Town is interested in leasing all or a portion of the Site described in the RFP for a period of time not to exceed twenty (20) years. The selected Respondent will own the System and will be responsible for the design, engineering, permitting, installation, testing, operation, maintenance, repair, vegetation management, and decommissioning of the System, including, without limitation, procurement of the solar photovoltaic equipment and related services. The Town will not be an off-taker of the electricity generated (or net metering) at the Site.



**Array Schematic**  
*Property Assessment and Due  
Diligence Investigations  
(Attachment D)*



The successful Respondent will be solely responsible for performing (and for paying all of the costs associated with) permitting, designing, owning, insuring, commissioning, interconnection, metering, operating, maintaining, monitoring, and reporting the system, and for providing security for the system at all times. On termination of the lease, the successful Respondent will removal all panels, racks, concrete blocks, and exposed conduits, and return the portion of the property on which the System was installed to its original conditions.

The successful Respondent shall be responsible for all project costs including, but not limited to: the furnishing of all materials, services, labor, performance and payment bonds; insurance; and other costs incurred in the preparation of this response and the performance of the contract, signed by an individual authorized to bind the Respondents contractually.

The successful Respondent shall be responsible for providing training to Town officials with regard to the operation and emergency response for the facility prior to operation. The respondent shall be responsible for additional training at the site to understand any new systems as technology or equipment is changed or updated, or if requested by the Town due to change in Police Chief, Fire Chief, or Utilities and Facilities Superintendent.

The successful Respondent shall provide access to the facility energy monitoring system to the Town. The selected Respondent shall create an internet link on the Town's web site that will provide the energy monitoring system data for live, real-time viewing by Town officials and the public at any time. The developer shall maintain the energy monitoring interface with the website at all times.

The successful Respondent will be responsible for payment of all taxes, including, without limitation, real and personal property taxes arising from the lease of Town land and the solar energy system(s). Proposers are advised that under Massachusetts General Law, there is no exemption for real and/or personal property taxes for renewable generation assets that supply power to the grid like the System contemplated in this RFP. The Town will consider a structured tax agreement, such as a payment in lieu of taxes, as a compliance option of the real and property tax obligation. Any such structured tax agreement shall conform to requirements set forth by the Massachusetts Department of Revenue. The Town will evaluate the proposals in accordance with the criteria stated in this RFP to determine the best value to the Town.

The successful Respondent will be required to document, prior to execution of any Lease, the suitability of a System at the Site, including but not limited to environmental/code compliance and permitting for the System. The concept plan and site constraints provided in the *Property Assessment and Due Diligence Investigations* report provided in Attachment D is intended as a guide only.





## 2. Site Work, Restoration, and Maintenance Requirements

The successful Respondent shall be responsible for the design, permitting, construction, and maintenance of all site work, drainage, erosion controls, and landscaping associated with the PV array system and lease area, including but not limited to the requirements outlined below.

The successful Respondent shall be responsible for periodic removal of litter and debris within the lease area.

The successful Respondent shall be responsible for performing vegetation management within the lease area and within landfill sloped perimeter in accordance with the Natural Heritage and Endangered Species Program (NHESP) letter dated January 6, 2017, and the (draft) NHESP Mowing Advisory Guidelines in Rare Turtle Habitat (Guidelines), which are included in the *Property Assessment and Due Diligence Investigations* in Attachment D of this RFP. Steep slopes outside the array area shall be mowed at least two times per year. Fenced array and adjacent moderately sloped cap areas shall be mowed in accordance with the Guidelines at a frequency to be approved by the Town (at least 2 times per year minimum).

The successful Respondent shall maintain the landfill cap to ensure there is no erosion of slopes or ponding of any stormwater. The Respondent shall be required to repair the landfill cap to mitigate ponding or erosion within 30 days of observation or notification from the Town. Repair shall be made without excavating the landfill cap. All repairs shall be inspected and approved by the Town or their designated representative.

The successful Respondent shall maintain all drainage trenches, drainage ways, and drainage flow paths within the project area and all areas where mowing and slope maintenance are required. The Respondent shall be responsible for drainage discharging from the project area and drainage flowing from Town-operated areas onto the project area.

The successful Respondent shall be the responsible for the installation and maintenance of site specific safety and security requirements, including but not limited to snowmobile trail signage, transfer station screening and warning signage, or other measures as are required to comply with all necessary permits and approvals. See Permits and Approvals in *Section E*.

## 3. Site Access Road

The Transfer Station facility entrance drive may be utilized by the Successful Respondent for the array access, but permanent or construction vehicles shall not restrict public use of the facility (open Wednesday and Saturday) and a 20' wide "clear zone" is to be provided around all existing transfer station roads and facilities.

Upon completion of the solar PV system, the Respondent shall install a 1.5" minimum hot mix asphalt (HMA) overlay on the entire site access road from South Spencer Road. This includes



driveway aprons at the solar facility, at all Town Transfer Station's operational areas (i.e., all existing paved areas), at the compost area, and at the fire training facility. All on-site aprons shall be a minimum of 24 feet wide by 20 feet long, and shall be 4-inch minimum thickness installed in 2 lifts. Respondent shall also install a 4-inch minimum thickness (installed in 2 lifts), 32 feet wide by 60 feet long, (32 feet wide at the edge of the road transitioning to 18 feet wide through the existing gate) paved HMA apron at the existing unpaved fire training facility access driveway apron off South Spencer Road (located south of the main access road). Respondent shall replace existing culvert near compost area and include minimum 10 feet of dumped riprap drainage swale protection on each end of the culvert. Mill and overlay operational areas as required to maintain drainage away from building and all equipment. Trim trees along access road and fire training driveway 10 feet minimum from all existing or proposed edges of HMA, whichever is greater.

## **C. PROJECT SITE AND EXISTING SITE CONDITIONS**

### **1. Site Description**

For site description, see *Property Assessment and Due Diligence Investigations* in Attachment D of this RFP.

### **2. Site Conditions**

Before submitting a proposal, each Respondent will be responsible for obtaining such additional studies and data concerning conditions (surface, subsurface, and underground facilities) at the Site or otherwise, which may affect the Respondent's ability to promptly negotiate the contract if selected, or which the Respondent otherwise reasonably deems necessary to develop a proposal to undertake the Project in accordance with the terms and conditions of this RFP.

### **3. Town Support**

To facilitate the development of the Solar Energy System, the Town will make best efforts to support the selected Respondent as follows:

- a) Provide reasonable access to the Site to obtain data (whether required or reasonably requested by the Respondent);
- b) Grant the selected Respondent sufficient access and occupancy rights to allow the selected Respondent to undertake the Solar Energy System at the Site with the constraints noted in this RFP;
- c) Provide access for the installation, maintenance, ongoing operation, and eventual decommissioning of the System; and

Schedule weekly construction meetings to be attended by the successful Respondent and his/her general contractor and all subcontractors' foremen/supervisors working on any particular week.



## **D. SOLICITATION PROCESS**

### **1. Pre-Bid Meeting**

The Town will hold a pre-bid meeting for all interested bidders on Tuesday August 29, 2017 @ 2:00 PM beginning at the main entrance to the Spencer Transfer Station, located at 17 South Spencer Road in Spencer, MA. It is recommended that all interested bidders attend to familiarize themselves with existing conditions and project requirements. All information provided shall be considered part of the information for bidders and, therefore, part of the contract. Meeting minutes or summary of the meeting will NOT be available.

### **2. Submission of Proposals**

- a) Packages containing responses must be sealed and addressed as specified in this RFP.
- b) Any Respondent may withdraw or modify its proposal by written request at any time prior to the established time of the Public Opening. Telephone or email responses, amendments, or withdrawals will not be accepted.
- c) After the Public Opening, a Respondent may withdraw, but may not modify, its proposal except in a manner that is not prejudicial to the interest of the Town or to fair competition. Negligence on the part of the Respondent in preparing the proposal confers no rights for the modification of the proposal after it has been opened.
- d) Proposals received prior to the Public Opening will be securely kept unopened. No responsibility will attach to an officer or person for the premature opening of a response not properly addressed and identified.
- e) Any deviation from the requirements of this RFP must be noted in writing and attached as a part of the proposal. The Respondent shall indicate the item or part with the deviation and indicate how the response deviates from the requirements.
- f) Any Respondent taking exception to, or questioning any of the provisions, procedures, conditions, or specifications herein stated, should clearly articulate such exceptions in the proposal in a separate section entitled "Exceptions".
- g) All substantive inquiries from prospective Respondents concerning this RFP must be submitted in writing, electronically by the date provided on the schedule. All responses to substantive questions shall be in writing and will be simultaneously distributed to all recipients of record for the RFP.
- h) The Town may in its discretion waive any and all informalities or allow the Respondent to correct them.



### **3. Receipt and Opening of Proposals**

Sealed proposals will be accepted by the Town until the time and location indicated in this RFP and will then be publicly opened in the presence of at least two witnesses. The Town will prepare a listing of responses available for public inspection.

### **4. Form of Response**

Proposals must be submitted in the format prescribed in the RFP and must include the forms attached to this RFP in *Attachment A*. No change shall be made in the phraseology of the forms in *Attachment A* or in the item or items mentioned herein. The proposal must contain the name and proper address of the Respondent, be signed by a responsible member of the Respondent with his/her signature and official title, and include certification of site visitation. Except as otherwise provided in this RFP, responses that are incomplete, contain any omissions, erasures, alterations, additions, or irregularities of any kind may be rejected.

Submission of a proposal shall be conclusive evidence that the Respondent has examined the Site, and is familiar with all the conditions of this procurement. Upon finding any omissions or discrepancies in the proposal documents, the Respondent shall notify the Issuer immediately so that any necessary addenda may be issued. Failure of the Respondent to completely investigate the Site and/or to be thoroughly familiar with the contract documents (including plans, specifications, and all addenda) shall in no way relieve the Respondent from any obligation with respect to the proposal.

## **E. CONTRACTING REQUIREMENTS**

The selected Respondent and the Town will enter into Agreements, substantially in the form of *Attachment C*, pursuant to which the selected Respondent will Lease the Site from the Town and have the right to install, own, operate, maintain, and decommission the Solar Energy System.

The Respondent must include within their proposal assurances to achieve the following items:

#### **1. Insurance**

- a) The selected Respondents shall be required to provide the Town with proof that they will be able to purchase and maintain, for the term of the Renewable Energy Management Services Agreement (EMSA) in the form of a land lease, or longer as may be required by the EMSA, from a company or companies lawfully authorized to do business in the Commonwealth and having a rating no lower than A- (Excellent) from A.M. Best's Key Rating Guide (latest edition in effect at the date of the Agreements and at the time of renewal of any policies required by the Agreements), the following insurance:



- Commercial general liability insurance (form CG 00 01 or equivalent) in a limit of not less than \$2,000,000 per occurrence for personal injury liability, \$4,000,000 general aggregate (applied per job), and \$2,000,000 products and completed operations aggregate written for a period of three years beyond final payment. Commercial general liability insurance shall also include broad form property damage liability and broad form contractual liability.
- Minimum additional \$5,000,000 umbrella for excess liability coverage with terms and conditions that are at least as broad as the underlying liability policies and for concurrent terms with the underlying commercial general liability insurance.
- Professional Liability Insurance, covering errors and omissions, \$2,000,000 each occurrence and \$4,000,000 aggregate limit.
- Commercial automobile liability with a combined single limit of \$1,000,000 with a hired and non-owned endorsement. Personal automobile liability coverage will be acceptable in lieu of commercial automobile coverage only if the vehicle used at the job site is not commercially insured. Limits for personal auto must be at least \$250,000 bodily injury per person, \$500,000 bodily injury per accident, and \$250,000 property damage per accident with an endorsement that the policy covers business related use with an additional \$1,000,000 personal umbrella policy.
- Workers' Compensation coverage as required by Chapter 152 of the Massachusetts General Laws with Employers' Liability limits of \$500,000 each accident, \$500,000 disease-each employee and \$500,000 disease-policy limit.

b) Additional Insurance Requirements for the Selected Firm:

- The selected firm shall provide the additional insurance requirements outlined in Attachment C, Draft Property Lease Agreement.
- The selected firm will agree that the Commercial General Liability insurance set forth above shall be primary and non-contributing with respect to any insurance carried by the Town or the selected firm's subcontractor(s).
- The selected firm's insurance policy shall not exclude subcontractors from coverage, or have any restrictions on coverage, resulting from subcontractors failing to maintain certain levels of insurance.
- The selected firm's insurance shall name the Town as additional insured with coverage at least as broad as the coverage provided to the named insured.
- The selected firm will agree that the insurance set forth above shall be written on an occurrence basis, unless the Town approves, in writing, coverage on a claims-made basis.
- Certificates of insurance reasonably acceptable to the Town that include insurance coverage's required and specified above shall be delivered to the Town promptly after execution of the Agreements. Each policy shall contain all generally applicable conditions, definitions, exclusions, and endorsements related to the project.



- The certificates and the insurance policies required will contain a provision that coverages afforded under the policies will not be canceled, modified or allowed to expire until at least thirty (30) days' prior written notice has been given to the Town. The Town will accept a 10-day notice for cancellation for non-payment of premium as required by insurance company. In the event that any insurance policy providing coverage required by the Agreements will expire during the term of the Agreements, the selected firm will, not less than fifteen (15) days prior to the policy's expiration date, deliver to the Town certificates of insurance evidencing renewal of such policies.
- The failure to provide and continue, in force, any insurance required in accordance with the terms of the Agreements shall constitute a material breach of the Agreements.

## 2. Permits and Approval

The selected Respondent is responsible for obtaining, and paying all costs for, all permits associated with the system installation project. These may include, but are not limited to, the following, provided, however, that this section notwithstanding, it is solely the responsibility of the Respondent to determine what permits are required for the System. See *Property Assessment and Due Diligence Investigations* report provided in *Attachment D* for additional information regarding anticipated permitting requirements.

- a) Landfill: MA Department of Environmental Protection Landfill Re-Use Permit.
- b) Special Permit: A Special Permit is required to be reviewed and approved by the Spencer Planning Board. A technical review meeting with the Planning Board and other involved department heads is required upon completion of a concept plan and prior to filing for a Special Permit.
- c) Wetlands: Any proposed work within 100 feet of wetland areas will require the Respondent to file a Notice of Intent with the Spencer Conservation Commission and comply with an Order of Conditions issued for the project. A Notice of Intent shall also be submitted to the Massachusetts Department of Environmental Protection - Wetlands Division.
- d) Stormwater: Stormwater Permit Major Project Application to be reviewed by Planning Board.
- e) Building Codes: The installation must comply with all local, state and federal laws, regulations, bylaws, codes, and standards including the most recent version of the Massachusetts Building and Electric Codes.
- f) National Grid Interconnection Agreement.



### **3. End of Term**

At the end of the Term, the selected Respondent will retain ownership of the System and be required to remove the System. The Agreements will include a requirement for securing a financial decommissioning assurance instrument to ensure that the System is removed.

### **4. Agreements**

The Agreements will include a property Lease for Solar Energy System.

### **5. Prevailing Wages**

As a renewable energy project on Town property that is part of a net metering agreement by the Town, prevailing wage rates will apply to the construction work. Refer to *Attachment E* for Prevailing Wages in effect through July 23, 2018. The selected Respondent for the project shall be responsible for obtaining the relevant prevailing wage rates, updated annually, from the Commonwealth, and shall pay prevailing wages as applicable, and by submitting a proposal agrees to indemnify and hold the Town harmless from any and all costs, claims for wages, fines, or any other monetary consequence associated with any failure of the selected Proposer to pay such wages.

### **6. Subcontracting**

Except to the extent contemplated in the proposal and permitted in the Agreements, the Agreements will prohibit assignment or subcontracting without the Town's express prior written approval.

### **7. Indemnification**

The Agreements will require that the selected Respondent hold harmless and indemnify the Town and its officers, agents, and employees against all claims, demands, actions, and suits (including all attorneys' fees and costs) brought against any of them arising from the contractor's work or any subcontractor's work under the Agreements.

### **8. Compliance with Laws**

The contract will require compliance with all federal, state and municipal laws, ordinances, rules, and/or regulations, including labor laws and laws against employment discrimination.

### **9. Governing Law and Venue**

The Laws of the Commonwealth of Massachusetts shall govern all Agreements entered into by the Town. Any disputes shall be resolved within the Town's preferred venue, the Worcester Superior Court of the Commonwealth of Massachusetts.



## **10. Decommissioning Assurance**

The selected Respondent will be required to provide, in the Town's discretion, security in the form of a an escrow fund, irrevocable letter of credit, surety bond, or third party guaranty sufficient to cover the cost of the removal of the System and restoration of the site(s) at the expiration or earlier termination of the Agreements. Such security shall be in a form satisfactory to the Town.

## **11. Legal Fees**

The selected Respondent will be required to provide, in the Town's discretion, reimbursement for any extraordinary legal expenses incurred by the Town in connection with any award resulting from this procurement.

## **12. Standard Contract Terms**

Any Agreements resulting from this RFP shall meet the requirements set forth in M.G.L. c. 30b, § 16 Real Property Disposition, and will include, to the extent required by the Town, the Town's standard contract terms.

## **F. TECHNICAL PROPOSAL REQUIREMENTS**

### **1. Transmittal Letter**

Each Respondent's response should include a transmittal letter signed by a party authorized to make a formal proposal on behalf of the Respondent. The letter shall clearly indicate that the Respondent has carefully read all the provisions in the RFP and should include a brief overview of the Respondent's proposal. Transmittal letters must also acknowledge receipt and understanding of any Addenda associated with the Project.

### **2. Firm Overview**

#### **a) *Company Profile:***

- Year founded and number of continuous years in business. Minimum of five (5) years in business is required.
- Ownership status (privately- or publicly-held).
- Number of employees in local branch office at the time of submittal (full-time employees, excluding contractors).
- Corporate Office location.
- Local Office location.





b) *Project Team:*

- Team leader identification for the entire proposal, including full contact information, office location, and key qualifications and professional credentials.
- Identification of each business entity, person, or firm involved in the proposal and their role (design, installation, civil/environmental, permitting, equipment supply, operations and maintenance, etc.). Prior experience collaborating on projects is preferred.
- Resumes of personnel directly involved with the development of the proposed System. Provide evidence of NABCEP-certified Installer, Professional Engineer (P.E.), and Master Electrician.

c) *Licensing:*

- Provide a list of all relevant State-Specific Contracting Licenses held, including classification and number.

d) *Insurance:*

- Provide evidence of the insurance limits held by the firm, demonstrating the Respondent's ability to comply with the insurance requirements set forth in this RFP.
- Financially viable insurance rating.

e) *Safety History:*

List the firm's OSHA ratings (Recordable Incidence Rates and Lost Workday Incident Rates) for the past 3 years.

f) *Capital Finance Capability:*

- Provide evidence that the firm or its affiliates, subsidiaries, or partners has the ability to secure financing for the total installed cost of the System proposed in response to this RFP. This should be in the form of a commitment letter from the anticipated funding source.

### 3. Relevant Solar Project Experience

- a) List the number, size (in kW DC), and location of PV projects completed in Massachusetts and/or the Northeast within the past 3 years.
- b) List the total capacity (in kW DC) of operational solar PV installations completed by the firm to date.
- c) List the total capacity (in kW DC) of solar PV systems installed in the Northeast via the following methods:
- Capped Landfills.
  - Ground-mounted systems.
  - Structure mounted systems.
  - Other.



- d) List experience in installing solar PV systems on Capped Landfills within Massachusetts, in the Northeast, or elsewhere in the country if the experience is relevant to this RFP. As part of this response, please provide a detailed discussion of the firm's experience working with Massachusetts Department of Environmental Protection ("MA DEP") and other State or Local regulatory authorities.
- e) Provide a listing of all Massachusetts solar PV projects implemented under M.G.L. c. 30B, c. 25A § 11I or 11C, and identify whether those projects were contracted under a power purchase agreement/lease agreement or a design-build energy management services agreement.
- f) Discuss in detail the Respondent's capacity and capability to perform the work presented in the indicative project schedule provided in this RFP.
- g) Discuss in detail the Respondent's direct experience interconnecting into LDC distribution systems, and specifically National Grid. Please discuss any challenges realized and the firm's efforts to overcome such challenges.
- h) Discuss in detail the Respondent's ability and approach to provide emergency and routine response as may be required for the solar, site, and landfill cap maintenance.

#### 4. References

For the projects listed above, please provide reference information as listed below. Please note that the Town may contact all or some of the references listed to aid in the Town's assessment of Respondent's proposal. Required information includes:

- Reference project name and location.
- Host Customer and/or Owner's name with contact person's name, email, address, and phone number.
- Date completed.
- Indicate if the installation was installed as a remote net metering asset or for the benefit of the local host community.
- Any other installation-specific information that may be relevant.

#### 5. Proposed Solar PV System

- a) *System Components:*
  - Include an overview of the proposed photovoltaic system, including brief descriptions of the main components (at a minimum: modules, inverters, mounting, and data acquisition systems).

b) *Design:*

- Include Preliminary Drawings (One-Line) for the proposed solution, that include at a minimum,
  - System size (in kW DC and kW AC).
  - Location of modules.
  - Location of inverters.
  - Any other site-specific information that will aid in overall evaluation.

c) *Interconnection:*

- Describe Respondent's approach to interconnecting the system to the National Grid's distribution system. Respondent shall be required to complete all requirements of the specific interconnection process according to tariff requirements. Discuss Respondent's familiarity and experience interconnecting to National Grid.

## 6. Documentation Required in Technical Proposals

The ***Technical Proposal*** must demonstrate that it meets the minimum qualifications and requirements of this RFP by including the following documents:

- a) Letter of transmittal, signed by an individual authorized to bind the Respondent contractually, certifying that the Respondent will, if selected to negotiate the contract with the Town, be prepared to promptly and actively participate in such negotiations.
- b) Documentation evidencing that the Respondent is responsible, demonstrably possessing the skill, ability, and integrity necessary to faithfully perform the work required by a particular contract, based upon a determination of competent workmanship and financial soundness in accordance with M.G.L. c. 149, § 44D.
- c) Department of Capital Asset Management and Maintenance ("DCAMM") certificates of eligibility and update statements.
- d) Certification of Examination signed and submitted on the form attached to this RFP as *Attachment A-1*.
- e) Certification of financial interest disclosure and of non-collusion signed and submitted on the form attached to this RFP as *Attachment A-2*.
- f) Certification of compliance with state tax laws, reporting of employees and contractors, and withholding and remitting of child support, as required by M.G.L.c.62C, § 49A, signed and submitted on the form attached to this RFP as *Attachment A-3*.
- g) Disclosure of any Beneficial Interests in Real Property, signed and submitted on the form attached to this RFP as *Attachment A-4*.



- h) Certification Regarding Debarment signed and submitted on the form attached to this RFP as *Attachment A-5*.
- i) Certificate of Authority – Must only be submitted if the Respondent's transmittal letter and Certification is not signed by the President or Owner of the company using the form attached to this RFP as *Attachment A-6*.
- j) Certification that the Respondent, if ultimately awarded a contract, will guarantee completion of all work required within due dates or the time periods needed.

## G. PRICE PROPOSAL REQUIREMENTS

The **Price Proposal** must demonstrate that it meets the minimum qualifications and requirements of this RFP by including the following documents:

- a) Letter of transmittal, signed by an individual authorized to bind the Respondent contractually, certifying that the Respondent will, if selected to negotiate the contract with the Town, be prepared to promptly and actively participate in such negotiations.
- b) The Prices and information per submitted on the form attached to this RFP as *Attachment B*.

## H. EVALUATION CRITERIA

The Town will utilize an evaluation system to rank the qualified Respondents and identify a short-list of the most qualified Respondents. It is the responsibility of each Respondent to provide information, evidence, or exhibits that clearly demonstrate the Respondent's ability to satisfactorily respond to project requirements and the factors listed on the qualifications forms.

The evaluation process may include verification of references, confirmation of financial information, and examination of other information, as the Town deems appropriate. The Town expects to conduct initial interviews and any such additional interviews or discovery, as it may deem necessary to evaluate the Respondents. The Town may require public presentations by Respondents. The Town reserves the right to request or obtain additional information about any and all responses. Any additional information or documentation provided, subsequent to the submittal of the proposal, shall be supplemental information and considered during the evaluation of the proposals.

At a minimum, Respondents shall meet the following requirements:

### 1. Minimum Criteria Information

Each of the items listed on the following table shall be marked (Y) if supplied and (N) if not supplied. Proposals that do not contain all items enumerated in Minimum Required Items as set forth below, may be disqualified prior to further qualification review at the discretion of the Town:



- a) Proposal Completeness and Adherence to Form.
- b) Form of legal entity and year entity was established.
- c) List any other legal names of the firm, including but not limited to the names of any affiliates, subsidiaries, or special purpose entities of the firm, and formation date of such affiliates, subsidiaries, or special purpose entities.
- d) Describe any changes in ownership status over the past five (5) years.
- e) List ultimate parent company, if applicable.
- f) Federal Tax Identification
- g) DCAMM Certificate of Eligibility and Update Statement. Please note that the Town will require either the Engineer of Record or the Construction Firm to be certified in the Energy Management or Electrical categories.
- h) Financial Statements – Please submit a detailed financial report for the Respondent, prepared in accordance with generally accepted accounting principles (GAAP), reflecting the current (as of the most recent financial statement date) financial condition of the firm. Such report must include a balance sheet, income statement, and statement of cash flows, along with applicable footnotes, dated concurrently for at least each of the last preceding 3 years, ending on the most recent fiscal quarter such statements were prepared. Public entities or subsidiaries should attach SEC Form 10-K along with, as applicable, detailed unaudited statements for the submitting firm. Non-public firms may attach either unaudited financial statements or copies of tax forms and schedules that are filed with the Internal Revenue Service where applicable. To the extent this information is considered sensitive, competitive, or confidential, Respondent must provide such information in a separate sealed envelope and clearly identify such information as sensitive, competitive, or confidential.
- i) Lawsuits and Disputes – Discuss whether your firm (including any affiliates, subsidiaries, or special purpose entities) has ever been involved in a lawsuit or dispute regarding a contract. If so, please provide all such incidents and describe the circumstances and outcomes of such lawsuit(s) or litigation. Further, please discuss whether your firm has been barred from providing performance-based energy services or other services in any states.
- j) Debarment Statement.



Criteria	Supplied
<b>Minimum Requirements</b>	<b>Y/N</b>
Proposal Completeness and Adherence to Format	Y/N
Form of Legal Entity	Y/N
Other Entity Names	Y/N
Changes in Ownership	Y/N
Parent Company (if applicable)	Y/N
Federal Tax ID	Y/N
DCAMM Certificate of Eligibility & Update Statement	Y/N
Financial Statements	Y/N
Lawsuits and Disputes	Y/N
Debarment Statement	Y/N

## 2. General Requirements and Evaluation Criteria – Technical Proposal

Proposals that meet the above Minimum Requirements will be evaluated against the Technical Proposal criteria categories listed below and graded on a scale of unacceptable to highly advantageous.

The information provided in the technical and price proposals combined with the information provided from references will form the basis of the Town's evaluation. Please note that Technical criteria will be weighted with Pricing offers to determine the overall score. The responses will be ranked using the following criteria:

- |                         |                                              |
|-------------------------|----------------------------------------------|
| i. Unacceptable:        | Criteria was not addressed                   |
| ii. Not Advantageous:   | Criteria was addressed minimally             |
| iii. Acceptable         | Criteria was addressed adequately            |
| iv. Advantageous:       | Criteria was addressed well                  |
| v. Highly Advantageous: | Criteria was addressed in a Superior fashion |

### a) Respondent Qualifications and Experience

- Experience* - Specialized experience is required in a series of work areas. Proposals will be evaluated on how well the Respondent demonstrates full knowledge, understanding, and experience in the methods, techniques, and guidelines required for the performance of the required work. All elements within this factor are of equal importance.
- Capacity to Perform Work* - The proposal will be evaluated on how well the Respondent demonstrates, by reference projects, the Respondent's capacity and capability to perform the work as presented in the indicative project schedule provided in this RFP. Responses to the Town's concerns should be clear.



- *Personnel Qualifications and Availability* - Proposals will be evaluated on the level of expertise provided in response to this RFP.
  - *Energy and Environmental Policy and Regulation Experience* - The Respondent will be evaluated on how well they can demonstrate comprehensive knowledge and experience of relevant energy and environmental laws and regulations (including the Massachusetts Green Communities Act, Solar Carve-Out Program, Interconnection of Distributed Generation Assets to LDC distribution networks, Net Metering, among others), and experience with implementation of programs related to such laws and regulations will facilitate the appropriate and efficient planning, structuring, financing, and implementation of the Project.
- b) *Performance Record of Respondent and its affiliates, subsidiaries, or partners* - Proposal must, at a minimum, provide information on solar projects and experience requested in this RFP and related reference information. Respondents will be evaluated on the record of experience provided and their demonstrated understanding of environmental conditions and requirements at capped landfills.
- c) *Location Understanding*
- *Relevant Specific Knowledge/Experience* - Landfill closure, permitting, and redevelopment experience. Given that the Primary Location is a municipal landfill site, the Respondent or its affiliates, subsidiaries, or partners must clearly demonstrate experience in permitting and redevelopment with respect to environmentally complex sites, including landfills.
  - *Local Knowledge/Experience* - The Respondent or its affiliates, subsidiaries, or partners must demonstrate knowledge of local regulations, siting, permitting, connectivity, and other issues as evidenced by prior work experience in Massachusetts and/or the New England region.
- d) *Overall System Plan and Optimization of Site* - The Proposal shall show how the system will be located on the Site, describe how site constraints will be addressed, and describe how to maximize power production while minimizing costs to optimize system performance as requested.
- e) *Maintenance Plan* – The Town will evaluate the Respondent’s maintenance and emergency response plans to determine the Respondent’s ability to perform the electrical, solar, site, maintenance, and restoration activities, as listed in the contract requirements.
- f) *Financing Plan* - The Town will evaluate the Respondent’s financing plan and financial ability to execute the project in order to determine the capability of the Respondent to obtain the financing to complete the Project in a timely manner. Respondents shall provide



evidence that the firm or its affiliates, subsidiaries, or partners has the ability to secure financing for the total installed cost of the System proposed in response to this RFP. This should be in the form of a commitment letter from the anticipated funding source.

### 3. General Requirements and Evaluation Criteria - Price Proposal

The Respondent's Price Proposal must include all of the information required in the price proposal form as articulated in this RFP. Each Price Proposal will be evaluated to determine the best overall economic benefit to the Town based on the following criteria:

*Best Price Criteria:* The "best" response price will be determined by the highest total lease payments to the Town over the 20 year period of the Agreement.

## I. AWARD AND CONTRACT EXECUTION

After a composite rating has been assigned for each Technical Proposal on the basis of the evaluation defined in this RFP, the Town shall then review the Price Proposals and determine the most advantageous proposal, taking into consideration the Technical Proposal ratings and the price.

Based upon the results of the evaluation of the Proposals and interview process (if applicable), a ranking recommendation will be developed and submitted for approval by the respective stakeholders within the Town of Spencer.

The top-ranked Respondent(s), considering the Technical and Price Proposals, will be contacted for negotiation of a Lease Agreement(s) (hereinafter referred to as "Agreements"). All Respondents will be notified in writing of the decision of the Town. The successful Respondent will execute Agreements in the form attached hereto in *Attachment C*.

All Respondents shall review the Agreements and confer with legal counsel prior to submitting a proposal in response to this RFP. **Any changes, objections, exceptions, or comments to Attachment C must be specifically noted in the proposal submission, or they will not be considered during negotiations.** The Town reserves the right to reject any requested changes identified by the Respondents if not previously agreed upon during the proposal review and interview process.

If the Town and the most qualified Respondent are unable, within 60 days following the Town's notice of commencement of negotiations with a Respondent (or such longer period of time as the Town may deem appropriate), to negotiate satisfactory Agreements with that Respondent at a price the Town determines to be fair, competitive, and reasonable, the Town shall negotiate with the next highly rated Respondent. The Town reserves the right to waive any and all informalities and to award the proposal on the basis of the above procedures to the Respondent it deems most qualified or discard all bids.





## **ATTACHMENTS**

### **Attachment A – Proposal Forms**

Attachment A-1 – Certificate of Examination Form

Attachment A-2 – Certificate of Non-Collusion

Attachment A-3 – State Taxes Certification Clause

Attachment A-4 – Disclosure of Beneficial Interests in Real Property Disclosure

Attachment A-5 – Certification Regarding Debarment

Attachment A-6 – Certificate of Authority

Attachment A-7 – Proposer Minimum Requirements Checklist

Attachment A-8 – Certificate of Compliance with Federal Immigration Law

### **Attachment B – Pricing Bid Forms**

### **Attachment C – Draft Lease Agreement**

### **Attachment D – Property Assessment and Due Diligence Investigations, Solar Feasibility at Land Fill & Appendices**

### **Attachment E – Prevailing Wage Rates**



**ATTACHMENT A-1  
CERTIFICATION OF EXAMINATION FORM**

The undersigned has read the Request for Proposals (RFP) and has carefully examined all specifications/evaluation criteria therein. The undersigned certifies that he/she has visited the Site and that there are no known obstacles to prevent the prompt negotiation and execution of an agreement with the Issuers. The undersigned acknowledges that the Town of Spencer, MA may reject all proposals, or waive portions of the RFP for all proposals, if it deems it in the best interests of the Town and/or the public.

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

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

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

Respondent Information

Name of Respondent: \_\_\_\_\_

Address: \_\_\_\_\_

Name of Primary Contact: \_\_\_\_\_

Title of Primary Contact: \_\_\_\_\_

Primary Contact Phone Number: \_\_\_\_\_

Primary Contact Fax Number: \_\_\_\_\_

Primary Contact Email Address: \_\_\_\_\_

Addenda Acknowledgement: \_\_\_\_\_



**ATTACHMENT A-2  
CERTIFICATE OF NON-COLLUSION**

The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.

COMPANY NAME:

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ADDRESS:

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AUTHORIZED SIGNATURE (sign):

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NAME AND TITLE (print):

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PHONE: \_\_\_\_\_

DATE: \_\_\_\_\_



**ATTACHMENT A-3  
STATE TAXES CERTIFICATION CLAUSE**

I certify under the penalties of perjury that I, to my best knowledge and belief, have filed all state tax returns and paid all state taxes under law.

\_\_\_\_\_  
\* Signature of individual or Corporate Officer  
Corporate Name (Mandatory) (Mandatory, if applicable)

\_\_\_\_\_  
\*\*Social Security # (Voluntary) or Federal Identification #

\* Approval of a contract or other agreement will not be granted unless this certification clause is signed by the applicant.

\*\* Your Social Security Number or Federal Identification Number will be furnished to the Massachusetts Department of Revenue to determine whether you have met tax filing or tax payment obligations. Providers who fail to correct their non-filing or delinquency will not have a contract or other agreement issued, renewed, or extended. This request is made under the authority of Mass. G.L.62C s. 49.A.



## ATTACHMENT A-4

### DISCLOSURE OF BENEFICIAL INTERESTS IN REAL PROPERTY TRANSACTION

This form contains a disclosure of the names and addresses of all persons with a direct or indirect beneficial interest in the real estate transaction described below. This form must be filed with the Massachusetts Division of Capital Asset Management, as required by M.G.L. c. 7, §40J, prior to the conveyance of or execution of a sale or lease of the real property described below. Attach additional sheets, if necessary.

1. Public Agency Involved in This Transaction: Town of Spencer, Massachusetts

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2. Description of the Property: Spencer Landfill

3. Type of Transaction: Lease of property

4. Lessor: Spencer Board of Selectmen

Bidder: \_\_\_\_\_

5. Names and addresses of all persons who have or will have a direct or indirect beneficial interest in the real property described above. *Note: If a corporation has, or will have, a direct or indirect beneficial interest in the real property, the names of all stockholders must also be listed, except that, if the stock of the corporation is listed for sale to the general public, the name of any person holding less than ten percent of the outstanding voting shares need not be disclosed.*

NAME

ADDRESS

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None of the persons listed in this section is an official elected to public office in the Commonwealth of Massachusetts, except as noted below:

NAME

TITLE OR POSITION

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6. This section must be signed by the individual(s) or organization(s) entering into this real property transaction with the public agency named in Item 1 and listed as the Lessor in Item 4. If this form is signed on behalf of a corporation, it must be signed by a duly authorized officer of that corporation. The undersigned acknowledges and swears under the pains and penalties of perjury that this form is complete and accurate in all respects.

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

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

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

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



**ATTACHMENT A-5  
CERTIFICATION REGARDING DEBARMENT**

The undersigned certifies, under penalty of perjury, that the said undersigned is not presently debarred from doing public construction work in the Commonwealth under the provisions of section twenty-nine F of chapter twenty-nine, or any other applicable debarment provisions of any other chapter of the General Laws or any rule or regulation promulgated thereunder.

---

Signature

---

Name of person signing qualifications

---

Date

---

Name of Business



**ATTACHMENT A-6  
CERTIFICATE OF AUTHORITY**

I hereby certify that I am the Clerk/Secretary of \_\_\_\_\_,  
(Insert full name of Corporation)

and that \_\_\_\_\_  
(Insert the name of officer who signed the **contract and bonds**)

is the duly elected \_\_\_\_\_  
(Insert the title of the officer in line 2)

of said corporation, and that on \_\_\_\_\_,  
(The date must be **ON OR BEFORE** the date the officer signed the **contract and bonds**.)

at a duly authorized meeting of the Board of Directors of said corporation, at which all the directors were present or waived notice, it was voted that

\_\_\_\_\_ the \_\_\_\_\_  
(Insert **name** from line 2) (Insert **title** from line 3)

of this corporation be and hereby is authorized to execute contracts and bonds in the name and on behalf of said corporation, and affix its Corporate Seal thereto, and such execution of any contract of obligation in this corporation's name and on its behalf, with or without the Corporate Seal, shall be valid and binding upon this corporation; and that the above vote has not been amended or rescinded and remains in full force and effect as of the date set forth below.

ATTEST: \_\_\_\_\_ AFFIX  
CORPORATE (Signature of **Clerk or Secretary**)\* SEAL HERE

Name: \_\_\_\_\_ (Please print or type name in line 6)\*

Date: \_\_\_\_\_  
(Insert a date that is **ON OR AFTER** the date the officer signed the **contract and bonds**.)

\* The name and signature inserted in lines 6 & 7 must be that of the Clerk or Secretary of the corporation.

**This form is required with RFP Proposal submission if the Proposal is signed by a person other than the owner or president of the company.**





**ATTACHMENT A-7**  
**PROPOSER MINIMUM REQUIREMENTS CHECKLIST**

<b>Criteri</b>	<b>Supplied</b>
<b>Minimum Requirements</b>	<b>Y/N</b>
Proposal Completeness and Adherence to Format	Y/N
Form of Legal Entity	Y/N
Other Entity Names	Y/N
Changes in Ownership	Y/N
Parent Company (if applicable)	Y/N
Federal Tax ID	Y/N
DCAMM Certificate of Eligibility & Update Statement	Y/N
Financial Statements	Y/N
Lawsuits and Disputes	Y/N
Debarment Statement	Y/N



## ATTACHMENT A-8

### CERTIFICATION OF COMPLIANCE WITH FEDERAL IMMIGRATION LAW

The undersigned hereby certifies under the penalties of perjury that the contractor named below is in compliance with the Immigration Reform and Control Act of 1986, as amended, and with all regulations adopted thereunder, with respect to all of its employees who will be performing work under this contract, and further certifies that said contractor does not knowingly employ any person in violation of the United States immigration laws.

The undersigned further certifies that said contractor will require this same form of certification to be executed by any subcontractor who will perform work under this contract and will maintain subcontractor certifications for inspection by the Town if such inspection is requested.

\_\_\_\_\_, Duly Authorized Signatory

Name:

Title:

\_\_\_\_\_  
Contractor Company Name

\_\_\_\_\_  
Date

**NOTE: All certificates must be signed by the individual submitting the bid or proposal.**



**ATTACHMENT B  
PRICING BID FORMS**

**SOLAR PHOTOVOLTAIC  
PROJECT LAND LEASE  
PRICE PROPOSAL SUBMISSION  
FORMS TOWN OF SPENCER,  
MASSACHUSETTS**

**THIS COMPLETED DOCUMENT MUST BE PLACED IN THE PRICE PROPOSAL ENVELOPE.**

The following prices shall include all costs, use of equipment, labor, all indirect and direct expenses associated with the construction and operation of a photovoltaic solar power generation facility as detailed in the attached RFP.

Company Name:
Name of Proposer:
Address:
Town, State / Zip:
Telephone / Fax:
Email:
Signature:
Print Name and Title:
Date:

**PROPOSAL PRICING: Construction, ownership, and operation of a solar photovoltaic power facility on land leased from the Town of Spencer, MA.**

Responder \_\_\_\_\_

Date \_\_\_\_\_

The bidder hereby agrees to pay the Town of Spencer the following amounts to lease up to **15 acres of the closed town landfill** for the construction and operation of a photovoltaic solar power facility:

Fiscal Year	Start Date	End Date	Lease Payment amount	
			Figures	Words
2018	7/1/2017	6/30/2018	\$ _____.	
2019	7/1/2018	6/30/2019	\$ _____.	
2020	7/1/2019	6/30/2020	\$ _____.	
2021	7/1/2020	6/30/2021	\$ _____.	
2022	7/1/2021	6/30/2022	\$ _____.	
2023	7/1/2022	6/30/2023	\$ _____.	
2024	7/1/2023	6/30/2024	\$ _____.	
2025	7/1/2024	6/30/2025	\$ _____.	
2026	7/1/2025	6/30/2026	\$ _____.	
2027	7/1/2026	6/30/2027	\$ _____.	
2028	7/1/2027	6/30/2028	\$ _____.	
2029	7/1/2028	6/30/2029	\$ _____.	
2030	7/1/2029	6/30/2030	\$ _____.	
2031	7/1/2030	6/30/2031	\$ _____.	
2032	7/1/2031	6/30/2032	\$ _____.	
2033	7/1/2032	6/30/2033	\$ _____.	
2034	7/1/2033	6/30/2034	\$ _____.	
2035	7/1/2034	6/30/2035	\$ _____.	
2036	7/1/2035	6/30/2036	\$ _____.	
2037	7/1/2036	6/30/2037	\$ _____.	

**TOTAL AMOUNT FOR TWENTY YEARS:\$** \_\_\_\_\_



## ATTACHMENT C

### DRAFT PROPERTY LEASE AGREEMENT

This Property Lease Agreement (“Agreement”) is dated as of \_\_\_\_\_, 2017, by and between the Town of Spencer, a body politic of the State of Massachusetts (“Town”), and \_\_\_\_\_ (“Tenant”).

WHEREAS, the Town of Spencer has identified a Town owned surface area of land on which a solar array for the generation of electrical energy can be located, which surface area is not needed for other public purposes as of the date of this Agreement, and

WHEREAS, the Tenant desires to develop and operate a solar array on said surface area for the purposes of supplying an alternate form of energy and interconnecting to the electric grid,

NOW, THEREFORE, WITNESSETH in consideration of the mutual promises and covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Town and Tenant agree as follows:

#### ARTICLE I - DEFINITIONS

1.1 The following words and terms, whenever and wherever used or appearing in this Agreement shall have the following meanings:

- a. “Annual Payment” shall mean the consideration paid under this Agreement by the Tenant to the Town as set forth in Article IV.
- b. “Electric Generating Facility” shall mean the equipment used to collect solar energy, convert it to usable electricity, and deliver it to purchasers. It is anticipated that the Electric Generating Facility will include solar photovoltaic panels, inverter(s), cables, wires, utility lines, transmission lines, any communications facilities, and supporting equipment and structures thereto, installed and owned by the Tenant within the Leased Property or Landfill.
- c. “Force Majeure” shall mean unforeseeable causes beyond the reasonable control of and without the fault or negligence of the Party claiming Force Majeure. Without limiting the generality of the foregoing, Force Majeure shall include catastrophic failure of facilities, flood, earthquake, storm, lightning, fire, explosion, epidemic, war, riot, civil disturbance, labor trouble, labor strike, terrorism, sabotage, restraint by court or public authority which by exercise of due diligence and foresight either Party could not be expected to avoid, and any change in any laws, orders, rules or regulations precluding operation of the facility.
- d. “Hazardous Substances” means any and all materials and substances that are defined as “hazardous waste”, “extremely hazardous waste”, “hazardous substances” or “hazardous material” pursuant to federal, state or local government law including, without limitation: (1) any “hazardous waste” as defined by the Resource Conservation and Recovery Act of 1976 (“RCRA”) 42 U.S.C. 9601 et. seq. as amended from time to time, and regulations promulgated thereunder; (2) any “hazardous substance” as defined by the Comprehensive



Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601 et. seq. (“CERCLA”), as amended from time to time and regulations promulgated thereunder; (3) any “hazardous material” as defined in the Massachusetts Hazardous Waste Regulations 310 CMR 30.00, as amended from time to time; (4) any oil, petroleum products, and their by-products; and (5) any substance that is or becomes regulated by any federal, state, or local government authority that may fall within any of the above-referenced categories.

- e. “Landfill” shall mean the parcel of land owned by the Town upon which the Town manages a closed and capped solid waste landfill, the legal description of which is provided, attached hereto as Exhibit A.
- f. “Leased Property” shall mean a portion of those certain premises owned by the Town consisting of approximately \_\_\_\_acres of land more particularly depicted and described as parcel No.R-22-2 by the Spencer Tax Assessor, the legal description of which is provided in Exhibit B and made a part hereof.
- g. “Solar Energy Project” shall mean all activities that encompass the installation, operation, and maintenance of solar photovoltaic panels and all other activities proposed to be conducted by the Tenant under this Agreement and as described in the Tenant’s response to the Request for Proposals (RFP) dated September.
- h. “Term” shall mean the Agreement term as set forth in Article IV of this Agreement.

## **ARTICLE II - LEASED PROPERTY**

- 2.1 The Town owns a parcel of land located at 175 South Spencer Road, commonly known as Town of Spencer Landfill. The Landfill is more particularly described in Exhibit A attached hereto. The Town leases to Tenant and Tenant leases from the Town approximately \_\_\_\_\_square feet of the surface of the Landfill (the “Leased Property”), as more particularly described and shown in Exhibit B attached hereto. The Town hereby leases to \_\_\_\_\_, the Tenant, the Leased Property and appurtenant access rights thereto in their now-existing condition.
- 2.2 Notwithstanding anything to the contrary contained herein, the Tenant shall not do any digging or soil borings on the Leased Property without the prior written consent of the Town and MassDEP, which consent will not be unreasonably withheld. The Tenant acknowledges that the Leased Property is on a landfill and that below the surface of the Leased Property there are capped soils possibly encapsulating methane gas, which cap must be safeguarded and cannot be punctured, degraded or compromised in any way.
- 2.3 The Tenant recognizes that the Town has certain obligations to maintain the Landfill and will not construct or operate the Solar Energy Project in a manner that will interfere with the proper maintenance of the Landfill by the Town. Furthermore, the Town retains the right to develop and/or use other portions of the Town property, which do not impact or interfere with the Solar Energy Project.



- 2.4 The Tenant has the right to construct, erect, install, maintain, test, replace, remove, operate, and upgrade on the Leased Property a solar photovoltaic system, including, without limitation, photovoltaic panels, fencing, mounting assemblies, inverters, converters, metering, lighting fixtures, transformers, ballasts, disconnects, combiners, switches, wiring devices, wiring, wire kits, and data monitoring systems.
- 2.5 Upon the Town's prior written consent, the Tenant, at its sole cost and expense, may take all approved actions to prevent flora on the Leased Property or the landfill from overshadowing or otherwise blocking access of sunlight to the Solar Energy Project.
- 2.6 Tenant shall use the Leased Property only for the activities of the Solar Energy Project and shall maintain the Leased Property consistent with federal, state, regional, and local regulations. Tenant shall have the right to erect structures upon the Leased Property incidental to and necessary for the normal operation of the Solar Energy Project on the Leased Property, subject, however, to the prior written consent of the Town, which consent shall not be unreasonably withheld or delayed, and subject further to Tenant obtaining all necessary permits for such construction and operation. Tenant shall not commit waste on the Leased Property and shall maintain the Leased Property in accordance with accepted professional standards applicable to similar electric generating facilities. Notwithstanding the foregoing, the Town acknowledges that it has provided consent to the Solar Energy Project described in the Project Description attached hereto.
- 2.7 The Town acknowledges and agrees that Tenant shall have full control and responsibility for all aspects of Tenant's operations upon the Leased Property, including, without limitation, the timing and extent of electric generation, the electric output resulting therefrom, all operation and maintenance activities relating to the Solar Energy Project, all uses of the Solar Energy Project for the purposes allowed under this Agreement, reporting and disclosure requirements to any and all regulatory agencies.
- 2.8 From the commencement of this Agreement, the Town acknowledges and agrees that all electric power generated at the Leased Property from the Solar Energy Project during the term of this Agreement shall be the property of the Tenant. From the commencement of this Agreement, the Tenant shall have all rights, titles, and interest in tax credits and any other environmental attributes, including any and all financial and tax credits relating to the Solar Energy Project, including Solar Renewable Energy Certificates (S-RECs).
- 2.9 The Tenant shall not cause or permit any Hazardous Substances to be brought upon, kept, or used on or about the Leased Property by the Tenant, its agents, employees, contractors, subcontractors or invitees without first obtaining the Town's specific written consent.
  - 2.9.1 Any Hazardous Substance permitted on the Leased Property as permitted in Section 2.9 of this Agreement, and all containers used therefore, shall be used, kept, stored, and disposed of in a manner that complies with all federal, state, and local laws or regulations applicable to such Hazardous Substance.



- 2.9.2 Except as explicitly permitted by applicable federal or state permits, the Tenant shall not discharge, leak, or emit, or permit to be discharged, leaked, or emitted, any material, including, without limitation, any Hazardous Substances, into the air, ground, sewer system, or any body of water, if that material (as is reasonably determined by the Town, or any governmental authority) does or may pollute or contaminate the same, or may adversely affect (a) the health, welfare, or safety of persons, whether located on the Leased Property or elsewhere, or (b) the condition, use, or enjoyment of any building or any other real or personal property. The Tenant will immediately notify the Town and will be solely responsible for cleanup of any Hazardous Substances discharged or released by the Tenant and indemnify the Town of any liability for clean-up expenses caused by any intentional or negligent acts or omissions of the Tenant.
- 2.9.3 The Tenant hereby covenants and agrees that it shall be fully liable for all cost and expenses related to the use, storage and disposal of Hazardous Substances kept on the Leased Property by the Tenant, and that the Tenant shall give immediate verbal and written notice to the Town of any violation or potential violation of the provisions of this Article.
- 2.10 The Tenant shall not mortgage, pledge, encumber, or in any way allow a lien to be placed against its interest in the Leased Property or in any way transfer or convey its interest in the Leased Property. In the event that the Leased Property or any part thereof or interest therein shall be mortgaged, pledged, encumbered by any lien interest, lease assigned, or otherwise transferred, or the Tenant shall be divested of its interest therein in any manner or way, whether voluntarily or involuntarily, then the same shall constitute a default under this Agreement and the Town shall have the right, at its option, to (i) immediately terminate this Agreement, (ii) accelerate all payments due hereunder to become immediately due and payable, and/or (iii) exercise all rights and remedies available to it under this Agreement and at law and in equity.
- 2.11 Replacement Costs. The Tenant will secure in a separate financial account an amount equal to the cost to replace 2% of the solar panels in a given year and provide proof to the Town that said amount is being held. The amount to be deposited in this financial account shall also include an annualized replacement cost for the inverter and any other equipment that will need to be replaced before the term expires.
- 2.12 Financial Assurance for System Removal. The Tenant will secure a separate financial account to be held by the Town, in an amount sufficient to return the landfill property to pre-project status. The amount required to be deposited in said account shall be determined from calculations based upon the all-inclusive costs of removal of the solar panels, removal of all electrical connections and equipment, and the legal, proper disposal of all equipment and waste. The tenant will secure a 100% performance bond to the amount required to return the land to its original, pre-solar installation condition. The calculation shall also include all costs for returning the landfill cap and property to pre-project conditions. The calculations shall include all professional costs, labor costs, trucking, hauling, and disposal costs, landscaping costs, and any other cost not mentioned but which is expected to be incurred. The calculations, financial instrument, and financial institution must be approved by the Town.





- 2.13 Payments made by Tenant to the Town for the Leased Property shall be included in the total consideration paid to the Town under Article V of this Agreement. In addition, Tenant shall pay all costs, charges and taxes (including taxes assessed against or attributed to the Solar Project), assessments, charges for public utilities, insurance premiums, and other charges and fees resulting from Tenant's activities at or upon the Leased Property.
- 2.14 Quiet Enjoyment. As long as the Tenant remits the annual payment(s) required under this Agreement and fulfills all of the obligations on its part to be performed hereunder, the Tenant shall peaceably hold and quietly enjoy the Leased Property without interruption by the Town. The Town, however, reserves the right to enter the Leased Property, to inspect the same and determine that the Tenant is, in fact, complying with the terms and conditions of this Agreement, provided, however, that such inspection shall be after reasonable notice, during normal business hours and conducted in the presence of an authorized Tenant employee.
- 2.15 Surrender of Premises. At the early termination of this Agreement, the Tenant shall surrender the Leased Property in as good condition as it was in at the beginning of said term, reasonable use and wear excepted. Upon surrender of the Leased Property, the Town shall own any and all improvements made to the Leased Property. Upon expiration or early termination of this Agreement, including termination by eminent domain, the Town shall have the option of requiring the tenant to remove or not remove the Electric Generating Facility from the Leased Property. In the event the Tenant opts to remove the Electric Generating Equipment, the Tenant shall do so without damage to the Leased Property. In the event Tenant elects to leave the Electric Generating Facility on the Leased Property, the Tenant shall convey to the Town title to same for a purchase price not to exceed its then-depreciated value, which depreciation shall be calculated over a twenty five (20) year period. An object assessment by a qualified third party will be utilized to determine the depreciated value purchase price. The Town shall accept the Electric Generating Facility, in "AS IS" condition. The Town shall have a right but not the obligation to offset any purchase price by any amounts then due and owing the Town hereunder.
- 2.16 Fire Casualty. If the whole or any part of the Electric Generating Facility and/or the Leased Property are damaged or destroyed by explosion, fire, the elements, or other insured cause so as to make the Electric Generating Facility unsuitable or uneconomical for Tenant's use, the Tenant may terminate this Agreement and all obligations of either Party hereto upon ninety (90) days written notice to the Town. If the Tenant does not elect to terminate this Agreement, the Tenant shall use its best efforts to restore the Electric Generating Facility to usable condition in a timely manner. In the case of such destruction, there shall be a just abatement or reduction of the Annual Payment, between the date of destruction and the date of complete restoration, based on the extent to which the destruction causes the electric generating Solar Project to be unusable or inaccessible.
- 2.17 Eminent Domain. If there is a taking in whole or in part of the Leased Property by Eminent Domain or condemnation, that substantially affects operation, the affected party shall have the right to terminate this Agreement upon written notice to the town within thirty (30) days after a final order of condemnation is entered. If either party does not so elect to terminate, the Agreement shall continue in effect, and the town will use best efforts to agree to an adjustment in the Annual



Payment payable by Tenant, which adjustment shall reflect the value of the portion taken, compared to the total value of the Leased Property immediately before the taking. Any award or compensation due or payable to the Town for the condemnation of any portion of the Leased Property shall be allocated between the Town and Tenant in amounts proportionate to the value of the condemned property (whether real or personal) owned or occupied by each. The value of the lease term remaining shall also be used to calculate the total amount to be allocated between the parties.

### **ARTICLE III - RIGHTS AND RESPONSIBILITIES**

3.1 The Town represents and agrees to the following rights and responsibilities under this Agreement:

- a. that the Town has title to the Landfill and full power and authority to enter into this Agreement and the Town will keep the Landfill free from liens and encumbrances that would adversely affect the Solar Energy Project and Electric Generating Facility;
- b. to own and manage the Landfill in compliance with all Federal, State, and local laws and regulations;
- c. to grant to the Tenant any necessary non-exclusive easements upon the Landfill for reasonable ingress and egress to the Solar Energy Project and Electric Generating Facility and for the taking of all actions to construct and operate the Solar Energy Project and Electric Generating Facility;
- d. to provide road access to the Solar Energy Project and Electric Generating Facility and snow plowing and customary access maintenance;
- e. to provide customary site and cap maintenance on the Landfill property that does not include the Leased Property; and
- f. to provide all reasonable assistance in the prosecution of permits for the Tenant's Project.

3.2 The Tenant represents, warrants, covenants, and agrees to the following rights and responsibilities under this Agreement:

- a. to operate and maintain the Solar Energy Project and Electric Generating Facility during the Term of this Agreement and be solely responsible for the cost and work necessary to repair, improve, or replace said Electric Generating Facility;
- b. to staff and manage the Solar Energy Project and Electric Generating Facility with qualified personnel;
- c. to provide the Town reasonable access to the Leased Property;
- d. to obtain diligently all necessary permits to operate the Solar Energy Project as proposed herein; and,
- e. to perform its duties and obligations according to all Federal, State, and local laws and regulations.

3.3 The Tenant and the Town covenant and agree that each shall cooperate fully with each other, including providing data, information, documents, and qualified personnel, so as to assist each other to obtain all contracts, permits, licenses, certificates, governmental approvals, and financing as are or may become necessary for the execution of the acts contemplated hereunder. In the event that the



- 3.4 Tenant is, despite its diligent efforts and in good faith efforts, unable to obtain the necessary permits to construct and operate the Electric Generating Facility, the Tenant may terminate this Agreement.

This provision shall not be deemed an affirmative obligation of the Town but a representation to assist and be cooperative in Tenant's efforts.

#### **ARTICLE IV - TERM OF AGREEMENT**

- 4.1 This Agreement shall remain in force for a term commencing on \_\_\_\_\_, 2018 and expiring on \_\_\_\_\_, 2037; provided, however, that the Parties shall have the right to terminate this Agreement, or any extension thereof, pursuant to Article X of this Agreement.
- 4.2 This Agreement may be extended for an additional term(s) under mutual agreement by both the Town and Tenant.

#### **ARTICLE V – PAYMENT**

- 5.1 The Tenant shall pay to the Town in quarterly payments for the entire term as indicated on the Tenant's Price Proposal Submission Forms (attached), except for the 1st year when said payment shall be due within 30 days of signing the Property Lease Agreement. Failure of the Tenant to render the Annual Payment may subject this Agreement to termination under Article X of this Agreement. The unpaid Annual Payment that is late will be subject to interest at a rate of 1.5 percent per month, calculated on the average daily unpaid balance.
- 5.2 The Tenant will also pay to the Town, on an annual basis due on July 1st of each year for the entire term, a payment in lieu of taxes (PILOT), such amount as indicated on the Tenant's Financial Benefits Proposal (attached). The first PILOT payment will be due in the 2nd year of the term.
- 5.3 (Optional) The Tenant will pay the town a portion of the revenue generated from the sale of electricity from the Solar Energy Project and Electric Generating Facility. The payment shall be in such an amount as indicated on the Tenant's Financial Benefits Proposal (attached).
- 5.4 (Optional) The Tenant will pay the Town a portion of the revenue generated from the sale of solar renewable energy certificates (S-RECs) from the Solar Energy Project and Electric Generating Facility. The payment shall be in such an amount as indicated on the Tenant's Financial Benefits Proposal (attached).

#### **ARTICLE VI – ASSIGNMENT**

- 6.1 All of the rights and duties contained in this Agreement shall inure to and be binding upon the successors and assigns of the parties hereto. The Tenant may assign or otherwise transfer the Tenant's rights and obligations hereunder to any third party subject to the Town's prior written consent, which such consent may not be unreasonably withheld or delayed by the Town. The Tenant shall notify the Town a minimum of one-hundred twenty days (120) in advance of its intent to assign any or all parts of this agreement, project responsibilities or majority financial interests in



the project. The Town has the right to review all available information concerning the proposed assignee and has the right to object to the assignment. The Town shall review and respond to any notice within 45 days from receipt thereof.

## **ARTICLE VII - CROSS-INDEMNIFICATION**

7.1 General Indemnities. Subject to Sections 7.2 and 7.3, each Party shall defend, indemnify and hold the other Party, its successors and assigns, its directors, officers, employees, agents, representatives, co-ventures, tenants, contractors, or servants, harmless from and against any and all claims, penalties, demands, suits, actions, proceedings, liability, damages, or losses of whatsoever nature including reasonable attorneys' fees for injury or death to person(s) or for damage or loss to or of property, to the extent arising out of or caused by a breach of this Agreement by the indemnifying Party or by the indemnifying Party's intentional or negligent acts or omissions, except to the extent of the 52 contributing or concurrent intentional or negligent acts or omission of the indemnified Party including breach of this Agreement by the indemnified Party.

7.2 Environmental Indemnities.

- a. The Tenant. The Tenant will not, and will not permit any of its agents, contractors, or employees, to store, use, release, discharge, or deposit on any portion of the Landfill any Hazardous Materials except in accordance with the Town's rules and regulations pertaining to the Landfill, and applicable laws. The Tenant shall defend, indemnify and hold harmless the Town, its officials, officers, members, employees, agents, and contractors from and against any claims, losses, liability, damages, penalties, fines, costs, and expenses based on any failure of the Tenant or its agents, contractors, or employees to adhere to the terms of this paragraph (a), and shall undertake all measures necessary and appropriate to remedy any such failure in accordance with all applicable laws.
- b. The Town. The Parties agree that, solely by virtue of its entry upon the Leased Property and the taking of actions authorized by or consistent with this Agreement, neither the Tenant nor any of its agents, contractors, employees, directors, officers, sub lessees, or members shall have, or shall be deemed to have, in any way participated in the operation of the Landfill or assumed any liability or obligation associated with materials of any type or description (including Hazardous Materials) deposited, stored, or received on or within the Landfill by the Town or any predecessor owner or operator. The Tenant shall at no time have any control over or responsibility for the disposal of any wastes or materials at the Landfill. The Town will defend, indemnify, and hold harmless the Tenant and its officers, directors, employees, agents, sub lessees, and contractors from and against any claims, losses, liability, damages, penalties, fines, costs, and expenses to the extent based on: (i) the presence of any Hazardous Materials in, on, or within the Landfill or the Leased Property except to the extent that the presence of such Hazardous Materials is attributable to the Tenant or their employees, officers, directors, agents, subcontractors, or contractors; (ii) the failure of the Landfill or Town to comply with any applicable laws regarding the regulation of the environment, disposition of materials, or operation and maintenance. The Town will



- c. not defend, indemnify, or hold harmless the Tenant or its officers, directors, employees, agents, or contractors for the failure of the Tenant to comply with any applicable laws regarding the regulation of the environment, disposition of materials, or operation and maintenance of the Electric Generating Facility.

7.3 Survival. The provisions of this Article 7 shall survive the termination, cancellation, or expiration of this Property Lease Agreement.

7.4 The parties agree that the risks described in Sections 7.1 and 7.2 must be covered under the existing insurance policies and proof of same shall be provided to the Town.

7.5 Liability of Public Officials. To the full extent permitted by law, no official, employee, agent, or representative of the Town or municipality participating in this Agreement shall be individually or personally liable on any obligation of the Town under this Agreement.

## **ARTICLE VIII – INSURANCE**

The Tenant shall provide coverage with limits of liability not less than those stated below:

- 8.1 Commercial General Liability – Occurrence Form. Policy shall include bodily injury, property damage, and broad form contractual liability coverage. General Aggregate: \$4,000,000; Products and Completed Operations Aggregate: \$2,000,000; Personal and Advertising Injury: \$2,000,000 /Each Occurrence.
- 8.2 Automobile Liability. Bodily injury and property damage for any owned, hired, leased, borrowed, and non-owned vehicles used in the performance of this Agreement.  
Commercial Automobile Liability: Combined Single Limit (CSL) \$1,000,000  
Personal Automobile Liability in lieu of commercial: \$250,000 bodily injury per person; \$500,000 bodily injury per accident, \$250,000 property damage per accident with an endorsement that the policy covers business related use and an additional \$1,000,000 personal umbrella policy.
- 8.3 Workers' Compensation and Employer's Liability. Workers' Compensation Statutory Employers' Liability per Each Accident: \$500,000; Disease per Each Employee: \$500,000; Disease Policy Limit: \$500,000.
- 8.4 Excess Umbrella Liability Annual Aggregate \$5,000,000
- 8.5 Contractor's Pollution Liability. For losses caused by pollution conditions that arise from the operations of the Tenant. The policy shall provide for complete professional service coverage, including coverage for pollution liability that is the result of a breach of professional duties. The policy shall provide for protection against claims for third-party bodily injury, property damage, or environmental damage caused by pollution conditions resulting from general contracting activities for which the Tenant is legally liable. The policy shall provide for cleanup costs when mandated by



governmental entities, when required by law, or as a result of third-party claims. If the project requires the transportation of any hazardous materials or regulated substances, then the policy shall provide coverage for claims resulting in bodily injury, property damage or cleanup costs associated with a pollution condition from transported cargo. Per Occurrence \$1,000,000 General Aggregate \$2,000,000 Builders' Risk Insurance or Installation Floater. In an amount equal to the initial cost for the construction of the facility. The Town, the Tenant, and subcontractors shall be Insureds on the policy. Coverage shall be written on an all risk, replacement cost basis and shall include coverage for soft costs. Policy shall be endorsed such that the insurance shall not be canceled or lapse because of any partial use or occupancy.

The policy must provide coverage from the time any covered property becomes the responsibility of the Tenant, and continue without interruption during construction, renovation, or installation, including any time during which the covered property is being transported to the construction installation site, or awaiting installation, whether on or off site.

- 8.6 Insurance Requirements - Operation Phase. The Tenant and its subcontractors shall procure and maintain, until all of their obligations have been discharged, including any warranty periods under this Agreement are satisfied, insurance against claims for injury to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the Tenant, his agents, representatives, employees, or subcontractors.
- 8.7 The insurance requirements herein are minimum requirements for this Agreement and in no way limit the indemnity covenants contained in this Agreement. The Town in no way warrants that the minimum limits contained herein are sufficient to protect the Tenant from liabilities that might arise out of the performance of the work under this Agreement by the Tenant, his agents, representatives, employees, or subcontractors.
- 8.8 Additional Insurance for Operation Phase. All of the insurance listed above shall remain in effect and full force for the term of the lease. In addition, the Tenant shall procure and maintain the following insurance:

Property Insurance - Property insurance shall be written on an all risk and replacement cost coverage. The Town shall be named as a Loss Payee.

The policy shall be in force at the time of substantial completion of the Electric Generating Facility's construction and continue until the termination of the property lease.

- 8.8.1 Business Interruption Insurance - The Tenant shall acquire Business Interruption Insurance, providing funds to cover all of the Tenant's costs to the extent that they would not be eliminated or reduced by the failure of the Electric Generating Facility to operate, (including but not limited to rent or mortgage payments, interest and principal payments on loans or



bonds and salaries and wages) for a period of at least six (6) months after a deductible period not to exceed three (3) months.

- 8.9 Insurance Requirements. All insurance policies shall include, or be endorsed to include, the following provisions:
- a. The policy shall be endorsed to include the following additional insured language: "The Town of (insert name) shall be named as an additional insured with respect to liability arising out of the activities performed by or on behalf of the Tenant". The town shall be an additional insured to the full limits of liability purchased by the Tenant even if those limits of liability are in excess of those required by this Agreement.
  - b. The Tenant's insurance coverage shall be primary insurance and non-contributory with respect to all other available sources.
  - c. The Tenant is responsible for the payment of all policy deductibles.
- 8.10 Notice of Cancellation. Each insurance policy required by the insurance provisions of this Agreement shall provide the required coverage and shall not be suspended, voided, canceled, reduced in coverage, or endorsed to lower limits except after thirty (30) days prior written notice has been given to the Town, except when cancellation is for non-payment of premium, then ten (10) days prior notice may be given.
- 8.11 Acceptability of Insurers. Insurance is to be placed with insurers which are duly licensed companies in the State of Massachusetts and with an "A.M. Best" rating of not less than B+ VI. The Town in no way warrants that the above-required minimum insurer rating is sufficient to protect the Tenant from potential insurer insolvency.
- 8.12 Verification of Coverage. The Tenant shall furnish the Town with certificates of insurance (ACORD form or equivalent) as required by this Agreement. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf.
- All certificates and endorsements are to be received and approved by the Town before work commences. Each insurance policy required by this Agreement must be in effect at or prior to commencement of work under this Agreement and remain in effect for the duration of the project. Failure to maintain the insurance policies as required by this Agreement or to provide evidence of renewal is a material breach of contract.
- 8.13 Subcontractors. Insurance certificate(s) shall include all subcontractors as additional insureds under its policies, or Contractor shall furnish to the Town separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to the minimum requirements identified above.
- 8.14 The Parties agree to reevaluate the insurance coverage limits set forth herein at least every five years and adjust as necessary to maintain adequate levels of insurance.



## ARTICLE IX - FORCE MAJEURE

- 9.1 If either Party to this Agreement is rendered wholly or partly unable to perform its obligations under this Agreement because of Force Majeure, that party shall be excused from whatever performance is affected by the Force Majeure to the extent so affected, provided that:
- a. the non-performing Party shall as soon as possible, but no later than two weeks after the occurrence of the Force Majeure, give the other party written notice describing the particulars of the occurrence;
  - b. the suspension of performance be of no greater scope and of no longer duration than is required by the Force Majeure;
  - c. no obligations of either Party which arose before the occurrence causing the suspension of performance will be excused as a result of the occurrence; and
  - d. the non-performing Party uses its best efforts to remedy its inability to perform.

## ARTICLE X. EVENTS OF AND REMEDIES OF DEFAULT

- 10.1 Lessee Events of Default - The lessee shall be in default of this agreement as a result of:
- a. Failure of the successful bidder to perform any of its obligations, covenants, or agreements under this Contract and the continuance of such failure for fifteen (15) days after written notice thereof from the Town to the lessee; provided, however, that if such default is not susceptible to cure within such fifteen (15) days and if the Contractor commences diligently to cure such default promptly after receipt of notice thereof from the Town, such period of fifteen (15) days shall be extended to a period of time necessary to cure such default with all due diligence, but in no event shall such period exceed a total of one hundred eighty (180) days.
  - b. The Lessee becomes insolvent however such insolvency may be evidenced; or makes an assignment for the benefit of creditors; or is adjudicated a bankrupt; or admits in writing its inability generally to pay its debts as they become due.
  - c. A trustee, custodian, or receiver of the Lessee's business, or any substantial portion of the Lessee's assets, is appointed by or at the behest of the Lessee, or, if appointed in a proceeding brought against the Lessee, the Lessee approves of, consents to, or acquiesces in such appointments or such trustee or receiver is not discharged within ninety (90) days.
  - d. Any proceedings involving the Lessee are commenced by or against the Lessee under any bankruptcy or reorganization, arrangement, probate, insolvency, readjustment of debt, dissolution or liquidation law of the United States, or any state, or, if such proceedings are instituted against the Lessee, the Lessee approves of, consents to, or acquiesces in such proceedings or such proceedings are not dismissed within ninety (90) days.
  - e. Any representation or warranty made by the Lessee is not true in any material respect as of the date of the issuance or making thereof as contained in this Contract, the proposal for this Contract, or any other document or instrument executed in connection herewith.
  - f. The death, dissolution, or termination of existence of the Lessee.





- 10.2. Town Events of Default. Failure of the town to pay any sums due the Lessee hereunder within forty-five (45) days after receiving an invoice for payments due from the Lessee, and the continuance of such failure for fifteen (15) days after written notice thereof from the Lessee to the Program Administrator; provided, however, that if the Project Coordinator notifies the Lessee of a dispute as to any sums within such fifteen (15) days after written notice by the Lessee to the Project Coordinator or Town Chief Financial Officer of such nonpayment, no Event of Default shall occur until a final determination of the correct amount and the failure of the Town to pay such correct amount within forty-five (45) days after receiving the statement next submitted to the Program Administrator after such determination.
- 10.3 Remedies for Successful Bidder Events of Default. Upon any default by the successful bidder, the Town may, in addition to and not in derogation of any other right or remedy available to it under this contract, at law or in equity (which rights and remedies shall be cumulative and shall not be deemed inconsistent with each other and which may be exercised at the same time to the greatest extent permitted by law), immediately terminate this Contract upon written notice thereof to the lessee. At any time following a bidder "Event of Default", the Town may (but shall not be obligated to) cure any default by the Lessee hereunder, and all costs and expenses incurred by the Town, including attorneys' fees and expenses, in curing a default shall be paid by the Lessee to the Town on demand.
- 10.4 Remedies for Town Events of Default. Upon any Town Event of Default, the successful bidder may, in addition to and not in derogation of the right to sue the Town for such sums actually due hereunder (which rights and remedies shall be cumulative and shall not be deemed inconsistent with each other and which may be exercised at the same time to the greatest extent permitted by law), immediately terminate this Contract upon written notice thereof to the Town. In no event shall the Town be liable for any indirect, special or consequential damages.

## **ARTICLE XI – TERMINATION**

- 11.1 The Town may terminate this Agreement in the event the Tenant:
- a. fails to pay the Town the Annual and Optional Payments within thirty (30) days of the date due;
  - b. fails to properly operate and maintain the Electric Generating Facility in accordance with the material terms of this Agreement, provided the Town notifies the Tenant in writing of such failure and provides the Tenant with a reasonable time in the opinion of the Town, under the circumstances in which to correct the failure;
  - c. otherwise does not materially comply with its obligations under this Agreement, provided the Town notifies the Tenant in writing of such default and provides the Tenant with a reasonable time under the circumstances in which to cure the default;
  - d. if the Tenant ceases to be in good standing with the Massachusetts Secretary of State or upon filing of an IRS or Massachusetts Tax Department lien for unpaid taxes and the Tenant shall provide written notice to the Town within five (5) days of receiving notice from the State that the Tenant is not in good standing or that a lien from the State or the IRS has been filed; provided further that the Tenant shall have ten (10) days to cure such default or provide a bond for any lien;



- e. is adjudged bankrupt or insolvent, or makes a general assignment to the benefit of the Tenant's creditors, or a trustee of receivers appointed for the Tenant or for any of its property, or files a petition to take advantage of any debtors' act, or to reorganize under bankruptcy or similar law.

11.2 The Tenant may terminate this Agreement if the Town:

- a. does not materially comply with the Town's obligations under this Agreement, provided the Tenant notifies the Town in writing of such default and provides the Town with reasonable time under the circumstances in which to cure the default;
- b. is adjudged bankrupt or insolvent, or makes a general assignment to the benefit of the Town's creditors, or a trustee or receivers appointed for the Town or for any of its property, or files a petition to take advantage of any debtor's act or to reorganize under bankruptcy or similar law.

## ARTICLE XII - MISCELLANEOUS PROVISIONS

- 12.1 This Agreement will be interpreted and construed in accordance with the laws of the State of Massachusetts.
- 12.2 The Parties hereto shall not discriminate against any person based on race, age, disability, gender, creed, color, religion, national origin, sexual orientation, place of birth, ancestry, HIV status, or veteran status. Massachusetts and federal law prohibit employment discrimination or retaliation on race, color, religion, gender, or national origin.
- 12.3 The headings of the Articles used throughout this Agreement are inserted for reference purposes only and are not to be considered or taken into account in construing the terms or provisions of any Article, or to be deemed in any way to qualify, modify or explain the effect of any such provisions or terms.
- 12.4 Unless herein provided to the contrary, any notice called for in this Agreement shall be in writing and shall be considered properly delivered if delivered by hand, or when mailed, if sent by United States registered or certified mail, return receipt requested, with all postage prepaid, in either case:

if to the Town, to:      Town Administrator  
                                    Town of Spencer  
                                    157 Main Street  
                                    Spencer, MA 01562

With a copy to:

Or if to the Tenant, to: With a copy to:

(Legal counsel to be specified) TO BE DETERMINED (Legal counsel to be specified)



- 12.5 All express or implied covenants of this Agreement shall be subject to all federal, state, and local laws, orders, rules or regulations.
- 12.6 This Agreement, the RFP dated \_\_\_\_\_, 2017, the Tenant's Proposal, and all Financial Proposals, all as attached hereto, constitutes the entire understanding and agreement between the parties and supersedes all prior understandings and agreements relating hereto.
- 12.7 If any term or provision of this Agreement or the application thereof to any person or circumstances to any extent be invalid or unenforceable, the remainder of this Agreement or the application of such terms and provisions to persons or circumstances other than those to which it is held invalid or unenforceable shall not be affected thereby and each term and provision of this Agreement shall be valid and be enforceable to the fullest extent permitted by law.
- 12.8 In the event of any breach or default by either party, the other party is entitled to all rights and remedies provided for in this Agreement, and/or available at law, in equity, by statute or otherwise, all of which rights and remedies are cumulative (and not exclusive). The failure of either party to take action as a result of a breach by the other party shall constitute neither a waiver of the particular breach involved nor a waiver of either party's right to enforce any provision of this Agreement through any remedy granted by law or this Agreement.
- 12.9 The Parties agree that, in addition to the remedies it may have at law or in equity, either party may seek recovery of all reasonable costs and expenses (including reasonable attorneys' fees) incurred as a result of having to sue to enforce such Party's rights hereunder.  
The Parties agree that this agreement may be amended from time to time, in part or in whole, at the request of either party. Either party will not unreasonably withhold action on such request. Parties agree that the terms of this agreement will be reviewed jointly at least every five years.
- 12.10 Each of the parties under this Agreement represent and warrant that they have the right, power, legal capacity, and authority to enter into and perform their respective obligations under this Agreement.
- 12.11 Both parties took part in the negotiation of this Agreement and agree that legal concepts intended to construe the Agreement against the drafter will not apply against either party.



In witness whereof, the parties have signed this Agreement, with the intent that it be a sealed instrument, as of the date of the last signature below.

In Presence Of:

Town of Spencer

By: \_\_\_\_\_ Title: Chairman, Board of

Selectmen Duly Authorized

By: \_\_\_\_\_ Title: Town Accountant

(Tenant)

By:

Title:

Duly Authorized

**EXHIBITS** *(To be provided at the time of contract development)*

**Exhibit A: Legal Description of The Landfill**

**Exhibit B: Legal Description of The Leased Property**



**ATTACHMENT D**  
**PROPERTY ASSESSMENT AND DUE DILIGENCE INVESTIGATIONS**  
**SOLAR FEASIBILITY AT SPENCER LANDFILL**

# Property Assessment and Due Diligence Investigations

## Solar Feasibility at Spencer Landfill

17 South Spencer Road  
Spencer, Massachusetts

January 2017  
Revised February 2017

*Prepared for:*  
**Landfill Solar Development Advisory Committee**  
**Town of Spencer**  
157 Main Street  
Spencer, MA 01562



317 Iron Horse Way  
Suite 204  
Providence, Rhode Island 02908

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- 1 Location Plan
- 2 Site Constraints Plan
- 3 Concept Site Plan

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- C Flood Insurance Rate Map
- D NRCS Soil Report
- E Pre-Application Report
- F Revised Solar and Combined Permitting Bylaws

## 1 Introduction

Fuss & O'Neill has prepared this report to assist the Town of Spencer in assessing the feasibility of a solar array installation at the Spencer Landfill site. Specifically, this report outlines opportunities and constraints associated with siting a solar installation on a portion of property located at 17 South Spencer Road, for the purposes of assisting with development an RFP to solicit for a solar developer. The site is owned by the Town of Spencer and operated as the Spencer Transfer Station.

A Site Location Plan is included as *Figure 1*.

## 2 Site Conditions and Constraints

The subject site is identified as Parcel R-22-2 by the Spencer Tax Assessor, and contains approximately 115 acres. Although over one hundred acres in size, the “project area” assigned to the project will be limited to the portion of the lot associated with landfill activities, and will not include the surrounding woodland or developed/graded areas fronting South Spencer Road on the west side of the lot. The limits of the onsite landfill have been approximated from as-built documents as well as from a limited number of hand-dug confirmation test holes performed previously. The portion of the parcel available for siting the solar installation project is approximately 15 acres.

The transfer station is sited in the central portions of the property and includes of a number of small buildings as well as a graded area for dumpster staging and related loading activities. A paved access drive enters the property at the north of its frontage on South Spencer Road and continues west toward and around the buildings near the center of the landfill. The existing facility and access road will remain operational during and after the installation of the proposed solar facility.

The central portion of the landfill is moderately graded, with slopes less than ten percent, which are considered suitable for ballast mounted solar panels typical of landfill installations. The areas at and around the perimeter of the landfill are much steeper, with slopes as steep as 2:1. These perimeter slopes will similarly be excluded from use for the project.

There is limited stormwater treatment and runoff control facilities at the site. A series of swales with check dams currently convey stormwater from the existing transfer station facility and landfill toward the surrounding wetland areas. An inspection of these measures did not identify significant evidence of erosion or flooding problems or concerns.

The site is served by public water and there is a single fire hydrant on the lot located west of the onsite building. The eight-inch ductile iron water main is located beneath the existing access road right of way and is not anticipated to constrain the siting of the solar array facility. There is a septic system on the south side of the transfer station building and within the operations area. The exact location and limits of the septic system are undetermined, but based on the proximity to the building are not anticipated to constrain the siting of proposed array facilities.

Based on the above, the total net solar installation “Project Area” is approximately 15 acres, which is depicted on *Figure 2*.



### 3 Siting Considerations

The following additional constraints have been identified for the project:

- The entire array shall be fenced.
- The facility entrance drive may be utilized for the array access, but permanent or construction vehicles shall not restrict public use of the transfer station (open Wednesday and Saturday).
- Maintenance/mowing responsibility of the landfill cover slopes beyond the limits of the array are anticipated to transfer to the array developer.
- A 20' wide "clear zone" is to be provided around all existing transfer station roads and facilities.
- An existing multi-use trail that is used by snowmobiles in winter formerly traversed the landfill. It has been relocated around the northwest of the facility and shall be maintained after installation of the solar facility.
- A 15 foot gravel access road is to be provided around the outside perimeter of the arrays, within the perimeter fencing and at least one (1) interior access road shall split the facility and provide for emergency access to the south through the fence.
- The western cleared portions of the site (outside the array limits) may be used for construction staging if coordinated with the Town.

### 4 Zoning Bylaws

A cursory review of the zoning bylaws and map was performed to determine permitting, dimensional and screening requirements. Based on the Town Zoning Map, the northern portion of the property, where the site is located, is zoned Industrial (I), while the southern portion is zoned as Rural Residential (RR). The Zoning Map is included as *Appendix A*.

- USE: Large Scale (greater than 200 kW) Solar Generating Installations require Special Permit approval by the Planning Board.
- DIMENSIONAL CONSIDERATIONS: The following specific provisions of the ordinance should be noted as they relate to the proposed project.
  - Section 4.3.4 - Screening with landscaping and/or fencing is required at the discretion of the Planning Board.
  - Section 4.8.9.G.1.b – No appurtenant structure facilities are permitted between the front of the principal building and the front lot line
  - Section 4.8.9.G.1.d – Maximum appurtenant structure height is 15'.
  - Section 5.1 - Maximum Impervious Coverage is 60%.
  - Sections 5.1, 5.2.7 - Industrial District Minimum Buffer is 60' along property line abutting other districts.

## 5 Wetlands

There are several resource areas located on and adjacent to the subject property.

- MassDEP and the Town's GIS mapping show a wetland to the north of the landfill, wooded marshes and bogs throughout the southern portion of the property, and the Cranberry River's extents along the south of the landfill.
- A Site Investigation and Inland Resource Area Delineation Report, prepared by Fuss & O'Neill for the Town of Spencer in 2013, identifies bordering vegetated wetlands (BVW) to the east and south of the site, as well as the delineations of the Banks of a tributary to the Cranberry River (a perennial stream), and an intermittent stream, both to east of the landfill. A portion of the BVW to the east of the landfill is also identified as Bordering Land Subject to Flooding.

The Massachusetts Wetland Protection Act defines the land within 200 feet of the perennial streams as Riverfront Area, which is considered protected resource area. Article 7 of the General Bylaws of Town of Spencer, identifies 100-foot buffer areas adjacent to the BVW's as protected resource areas. These areas are not anticipated to significantly impede the proposed project; however, any construction activities or disturbance within these resource areas will require filing of a Notice of Intent with Massachusetts DEP and the Spencer Conservation Commission.

## 6 Natural Heritage and Endangered Species Program

A review of the Natural Heritage and Endangered Species Program (NHESP) was performed using MassGIS mapping.

- No areas of critical environmental concern, certified vernal pools, Priority Habitats of Rare Species, or Estimated Habitats of Rare Wildlife within the site area.

The area surrounding the Sevenmile River to the site's west is designated as both an NHESP Priority Habitat of Rare Species and an Estimated Habitat of Rare Wildlife. There is also a vernal pool located on the property to the southeast, and a Priority Habitat area southeast of the property, which extends onto a small area of the property. The Natural Heritage and Endangered Species Program database contains records of wood turtle, a special concern species, in the immediate vicinity of the site. As a matter of environmental stewardship, the Town of Spencer Utilities and Facilities Office has agreed to implement the recommended NHESP Mowing Advisory Guidelines in Rare Turtle Habitat for vegetation management of the landfill cap to the extent possible.

- Although the site is hydrologically connected to these NHESP areas, due to the minimal impacts of the proposed construction activities on site hydrology, it is not anticipated that these NHESP areas will significantly affect project layout or increase permitting efforts. However, based on the adjacent resources, an Early Coordination Letter has been filed with

MESA/NHESP/MDFW to identify any special BMPs or guidance that should be followed for the landfill solar development to address potential concerns.

A copy of the NHESP map, response letter (dated 1/6/2017), and Mowing Advisory Guidelines in Rare Turtle Habitat (dated 2/23/2009) are attached as *Appendix B*.

## 7 Waste Management

The landfill was closed and capped under a permit from MassDEP (pursuant to 310 CMR 19; MassDEP Solid Waste Facility Regulations), and the transfer station facilities are regulated as a “post-closure use” of the landfill site. Any additional structures built or modified within the landfill footprint require a Permit Modification pursuant to 310 CMR 19. MassDEP groups these into “Minor” and “Major” Modifications. In the case of solar siting, the distinction is whether the cap and/or solid waste are fully penetrated. “Major” modifications penetrate the cap and disturb entombed solid waste, and require reconstruction of the entire cap to restore site conditions. “Minor” modifications, by contrast, either occur outside of the capped area, or solely within the cap thickness (the panel footings and infrastructure are entirely contained to the top two feet).

MassDEP has published an inventory of permits for landfill post-closure solar development (<http://www.mass.gov/eea/agencies/massdep/climate-energy/energy/landfills/landfills-with-post-closure-use-permits-for-renewables.html>). Since 2011, 10 permits have been issued for similar projects in MassDEP Central Region (the regional office governing the town of Spencer), and only 3 “Minor” permits were identified. Therefore, major modifications are more typical for this type of development, and the project will most likely require a major modification.

It may be possible to build solar arrays with pad foundations, such as the ballasted systems proposed here, with the transmission lines buried in shallow soil. Note that a major modification could still be warranted due to other triggers (e.g., use of large/heavy equipment which could damage the cap).

Permit modifications must be approved in writing by MassDEP prior to construction. Engineering plans must be submitted to MassDEP, and there is no presumptive approval process for modifications on the cap surface.

It should be noted that the landfill has had subsidence issues in the past, and the ground surface continues to settle. Shallow electrical infrastructure could potentially be at risk and any attempt to design and install systems solely within the cap thickness should consider the possibility of ground surface instability.

As a separate but related issue, the landfill property is located within a designated “Zone II” aquifer, or a zone of groundwater which may contribute flow to a public water supply well. One such supply well is located south of the Cranberry River in the vicinity of the site. MassDEP may place constraints on the disturbance of the landfill cap in order to protect groundwater against leachate-derived contamination.

## 8 Massachusetts Environmental Policy Act

A Massachusetts Environmental Policy Act (MEPA) filing may be required for a solar photovoltaic installation on a closed and capped landfill if the project exceeds certain thresholds. A MEPA filing (Environmental Notification Form or ENF) is typically triggered if any of the following thresholds are exceeded:

- Construction of a new electric generating facility with a capacity of 25 megawatts (MW) or more, or expansion of an existing facility by more than 25 MW.
- Alteration of 5,000 or more square feet of bordering or isolated vegetated wetlands or alteration of one half or more acres of any other wetlands.
- Direct alteration of 25 or more acres of land for anything other than accepted agricultural or forestry practices.
- Creation of five or more acres of impervious area.
- Alteration or disturbance of Priority Habitat or Estimated Habitat for one or more state-listed rare species of animals or plants.
- Location within a state-designated Area of Critical Environmental Concern (ACEC).

The proposed solar installation on the closed South Spencer Road Landfill is not anticipated to exceed any of these thresholds. Therefore, a MEPA filing is not anticipated to be required at this time.

## 9 Flood Zone

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map 25027C0757E depicts the 100-year flood hazard zone through the southern area of the property at the southern border of the existing landfill. This special flood hazard area, located outside of the “Project Area”, is designated as Zone A, which has no base flood elevations determined.

The Flood Insurance Rate Map is included as Appendix C.

## 10 Soils

The approved landfill cap includes twelve (12) inch minimum of impervious soil with a permeability of  $1.0 \times 10^{-7}$  cm/sec or less and a top layer of loam at least six (6) inches thick to support vegetation. Confirmation excavations and/or soil testing has not been performed as part of these investigations, but it has been assumed that the cap conforms to this standard throughout the landfill and that the as-built conditions will be an acceptable base for ballast mounted array tables.

A review of the Natural Resources Conservation Service (NRCS) Soil Survey was performed to characterize the underlying and surrounding soil conditions. The following surficial materials are identified at the site:

- Udorthents, smoothed (651) covers the majority of the landfill and the northern part of the property. These are disturbed areas where the upper soil profile has been removed, filled, or

graded. These soils are classified as Hydrologic Soil Group (HSG) A and have more than 80 inches to groundwater. These soils are generally suitable for land development.

- Scarboro and Walpole soils, 0 to 3% slopes (3A) covers the far east of the site. This complex is composed of 45 percent Scarboro soils, 35 percent Walpole soils, and 20 percent minor components. Scarboro soils consist of mucky peat underlain by mucky fine sandy loam, sand, and gravelly coarse sand. They are very poorly drained with a hydrologic soil group A/D, and have between 0 and 2 inches of depth to seasonal high groundwater. Walpole soils are also poorly drained, are classified as HSG B/D, and have 0 to 12 inches to groundwater.

The NRCS Soils Report is included as *Appendix D*.

## 11 Stormwater Management

Since the Project will disturb more than one (1) acre of land, a Notice of Intent is required to be submitted to the Environmental Protection Agency (EPA) for coverage under the National Pollution Discharge Elimination System (NPDES) Construction General Permit.

The project will be required to be designed to comply with and exceed the requirements of the Massachusetts Department of Environmental Protection (MassDEP) Stormwater Management Standards. The final design shall comply with the requirements of the Massachusetts Stormwater Handbook. A Stormwater Permit Major Project Application will also be required in compliance with the Spencer Stormwater Regulations and Stormwater Management Bylaw.

Although the solar panels are impervious, the surface condition beneath them will be largely unchanged, and stormwater will continue to travel by sheet flow and shallow concentrated flow on a pervious grass or meadow surface. Based on these conditions, water quality treatment and detention/infiltration are not anticipated to be required for the array features.

Construction of a gravel access road around the interior of the solar facility is anticipated to modestly impact the hydrologic conditions of the site and additional runoff controls are anticipated to be necessary. Based on the limitations associated with the landfill and on the intent to maintain the project within altered areas, supplementation of the existing swale network is the recommended BMP strategy to mitigate runoff from the gravel roadways, rather than new ponds or basins.

## 12 Electrical Interconnect

The site is a National Grid (NGrid) service area. There is a three-phase medium voltage feeder serving the site (assumed to be 13.2kV or 13.8kV at this time) originating at South Spencer Road. The feeder is pole mounted along the side of the access drive terminating at a pole mounted transformer which feeds the transfer station building at 480-volt, three-phase. At this point in time we do not know the voltage or capacity of this feeder however a pre-application has been filed with NGrid to obtain this information.

The proposed interconnect point would be at the final pole, identified as Pole No. 9, located just west of the transfer facility on South Spencer Road. Based upon site availability and constraints we estimate that an approximate system size of 4,200 kW DC and 3,000 kW AC.

The potential system size estimated in this report is based on the following: Preliminary racking and rack spacing we estimate approximately of 12,000 modules, utilizing 350W modules which are available and prevalent in the industry at this time we have developed the DC size of approximately 4.2 MW DC. Utilizing an industry standard DC to AC ratio of 1.4 we then determine that the approximate AC size is 3.0 MA AC. For sizing purposes we selected four 750 kW Solectria central inverters.

The Pre-Application Report was submitted to NGrid and was received and processed. The application was accepted as the first step in the process and it is now necessary to proceed to the next step which is the Interconnection Application. The Pre-Application Report is included as *Appendix E*.

## 13 Summary of Findings

Fuss & O'Neill has performed cursory investigations regarding the feasibility for constructing a photovoltaic energy system (PV array) at the Spencer Landfill. The following is a summary of the most significant findings of these investigations:

The solar array facility is proposed within the existing 25-acre landfill cap. Within the existing capped area, the available land suitable for the project is approximately 15 acres, which excludes the existing access drive and building infrastructure, areas with slopes steeper than ten percent, and wetland resource areas. Based on the constraints identified, it is anticipated that an array system comprised of approximately 700 tables can be sited on the property.

A Concept Site Plan is attached as *Figure 3*.

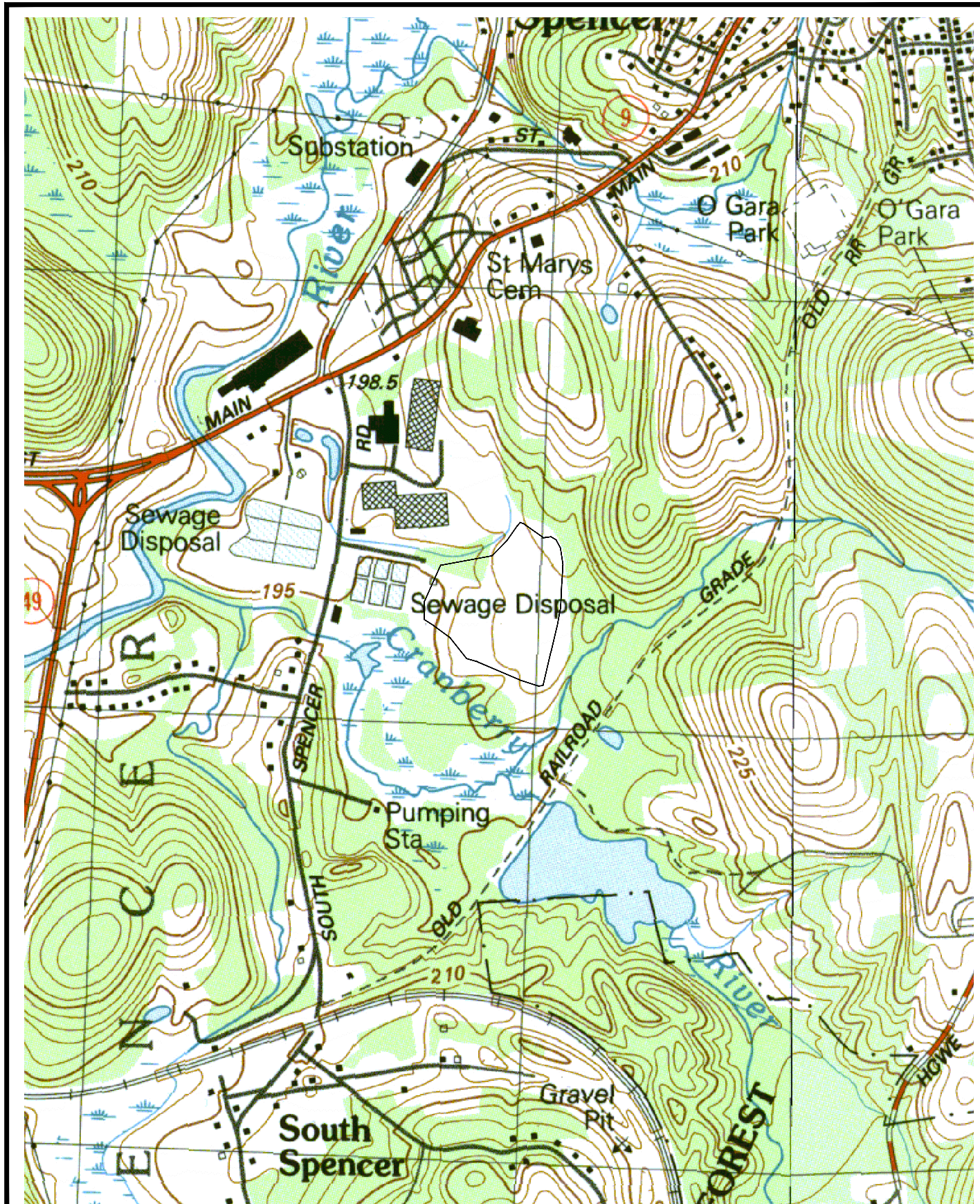
The proposed project is anticipated to require the following state and local permits:

- Permit Modification pursuant to 310 CMR 19 (MassDEP Solid Waste Facility Regulations).
- Special Permit to be reviewed by the Planning Board
- Notice of Intent (WPA Form 3) to MassDEP Bureau of Resource Protection-Wetlands
- Notice of Intent to Spencer Conservation Commission
- Town of Spencer Stormwater Permit Major Project Application to be reviewed by Spencer Conservation Commission (if Wetland Application is required) or by the Planning Board

## Figures

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SCALE:	
HORZ.: 1" = 1000'	
VERT.:	
DATUM:	
HORZ.:	
VERT.:	
0 500 1000	
GRAPHIC SCALE	



**FUSS & O'NEILL**

317 IRON HORSE WAY, SUITE 204  
 PROVIDENCE, RI 02908  
 401.861.3070  
[www.fando.com](http://www.fando.com)

TOWN OF SPENCER
SITE LOCATION MAP
SPENCER LANDFILL SOLAR RFP
SPENCER MASSACHUSETTS

PROJ. No.: 20151095A10
DATE: OCTOBER 2016
<b>FIGURE 1</b>











## Appendix A

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### Zoning Map

Zoning



Map Theme Legends

Zoning

- C - Commercial
- I - Industrial
- LR - Lake Residential
- RR - Rural Residential
- SR - Suburban Residential
- TC - Town Center Mixed Use
- VR - Village Residential

Town of Spencer



MAP FOR REFERENCE ONLY  
NOT A LEGAL DOCUMENT

Town of Spencer, MA makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Parcels updated 1/1/2016  
Properties updated 1/1/2016

## Appendix B

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National Heritage and Endangered Species Program Map,  
Response Letter, and Mowing Advisory  
Guidelines in Rare Turtle Habitat





Map Theme Legends

Natural Resource Protection

- NHESP Certified Vernal Pools
- NHESP Priority Habitats of Rare Species
- NHESP Estimated Habitats of Rare Wildlife
- Areas of Critical Environmental Concern



MAP FOR REFERENCE ONLY  
NOT A LEGAL DOCUMENT

Town of Spencer, MA makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Parcels updated 1/1/2016  
Properties updated 1/1/2016





MASSWILDLIFE

## DIVISION OF FISHERIES & WILDLIFE

1 Rabbit Hill Road, Westborough, MA 01581  
p: (508) 389-6300 | f: (508) 389-7890  
**MASS.GOV/MASSWILDLIFE**

Jack Buckley, *Director*

January 06, 2017

Steven Tyler  
Town of Spencer  
3 Old Meadow Rd  
Spencer MA 01562

RE: Project Location: 17 South Spencer Road  
Town: SPENCER  
**NHESP Tracking No.: 15-34133**

To Whom It May Concern:

Thank you for contacting the Natural Heritage and Endangered Species Program of the MA Division of Fisheries & Wildlife (the "Division") for information regarding state-listed rare species in the vicinity of the above referenced site.

Based on the information provided, the Natural Heritage has determined that at this time the site is not mapped as Priority or Estimated Habitat. The Division appreciates your reference to state-listed turtles in the vicinity of the project and suggests the implementation of the following protective measures:

- a turtle protection plan during construction (either through a time-of-year restriction or active turtle "sweeps") which includes contractor education;
- an operation and maintenance plan for the array, surrounding shadow buffer, and stormwater basins which includes measure to protect turtles (e.g. mowing time-of-year restrictions); and
- the raising of the security fence a minimum of 6 to 8 inches to allow for wildlife passage.

This evaluation is based on the most recent information available in the Natural Heritage database, which is constantly being expanded and updated through ongoing research and inventory. If you have any questions regarding this letter or desire further consultation on potential protective measures, please contact Eve Schlüter, Chief of Regulatory Review, at (508) 389-6346 or [eve.schluter@state.ma.us](mailto:eve.schluter@state.ma.us).

Sincerely,

Thomas W. French, Ph.D.  
Assistant Director

MASSWILDLIFE

## MOWING ADVISORY GUIDELINES IN RARE TURTLE HABITAT: PASTURES, SUCCESSIONAL FIELDS, AND HAYFIELDS

by

The Natural Heritage and Endangered Species Program  
Massachusetts Division of Fisheries and Wildlife



Grasslands, shrublands, pastures and hayfields are important habitats for turtles, particularly the Wood Turtle and Eastern Box Turtle. Turtles require sparsely vegetated areas with some bare soil for nesting and many prefer early successional areas as feeding areas during the late spring and summer months. The natural succession of grasslands, shrublands, old pastures, and fields reduces the availability of these critical habitat types forcing turtles to travel longer distances to find similar habitat elsewhere. As the travel distance increase so does the likelihood that they will cross roads putting them at risk of being hit and killed

by cars. Therefore, the maintenance of these habitat types is important and often requires periodic mowing, although other methods of control are possible (e.g. prescribed burns, grazing). Mowing during the spring and summer months can also cause significant turtle mortality; up to 10% of a western Massachusetts population of Wood Turtles (Jones 2007). In fact, researchers in rural areas are finding that the percent of mortality due to mowing and agricultural machinery is much higher than the mortality rate due to roads.

The following guidelines are intended to avoid or minimize any detrimental effect of habitat management on Wood Turtle or Box Turtle populations. These measures will likely also benefit other turtle species, such as the Stinkpot and Spotted Turtle. Native plant communities and all native species, particularly MESA-listed species, should be considered when developing management plans for conservation lands. These guidelines provide a suite of options, each of which we believe will help reduce turtle mortality. We recognize that all options will not be appropriate for every circumstance and that land managers may need to modify these guidelines to manage sites to accommodate the needs of other species.

For more information about Wood Turtles and Box Turtles and the types of habitat they use, see the NHESP Fact Sheets:

Wood Turtle [http://www.mass.gov/dfwele/dfw/nhsp/species\\_info/nhfacts/glyptemys\\_insculpta.pdf](http://www.mass.gov/dfwele/dfw/nhsp/species_info/nhfacts/glyptemys_insculpta.pdf)

E. Box Turtle [http://www.mass.gov/dfwele/dfw/nhsp/species\\_info/nhfacts/terrapene\\_carolina.pdf](http://www.mass.gov/dfwele/dfw/nhsp/species_info/nhfacts/terrapene_carolina.pdf)

An information request form can be submitted to the NHESP for private persons interested in finding out if they have state-listed turtle species on their property; the form may be found at [http://www.mass.gov/dfwele/dfw/nhsp\\_temp/regulatory\\_review/pdf/infreqform.pdf](http://www.mass.gov/dfwele/dfw/nhsp_temp/regulatory_review/pdf/infreqform.pdf)

For more information on management of these habitats, land managers can refer to the recently released *Managing Grasslands, Shrublands, and Young Forest Habitats for Wildlife: a Guide for the Northeast* available for download at: [http://www.wildlife.state.nh.us/Wildlife/Northeast\\_Hab\\_Mgt\\_Guide.html](http://www.wildlife.state.nh.us/Wildlife/Northeast_Hab_Mgt_Guide.html)

For more information about Habitat Management for Amphibians and Reptiles see the *Habitat Management guidelines for Amphibians and Reptiles of the Northeastern United States* available for order at [http://www.parcplace.org/habitat\\_management\\_guide.html](http://www.parcplace.org/habitat_management_guide.html)

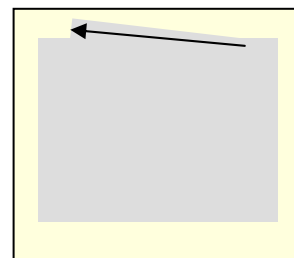
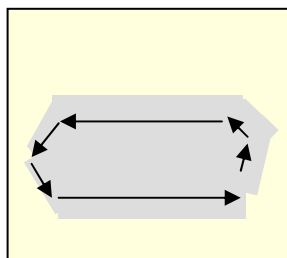
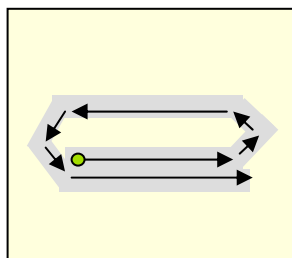


**Areas Managed as Turtle Habitat:** Lands where the primary objective is turtle habitat (such as nature preserves, wildlife refuges or private lands where the landowners wish to optimize turtle habitat and abundance).

- 1) **Timing - The best solution** is to avoiding mowing during the peak time when turtles are using fields.

Peak Time for <u>Field Use by Turtles</u>
<b>May 15<sup>th</sup> – September 15<sup>th</sup></b>

- 2) **Mowing Rotation** – Mowing to maintain field habitat for conservation reasons should only require multi-year rotations (e.g. mowing once every 2-3 years)\*. If mowing is combined with another maintenance method such as chemical control\*\* of invading woody plants, mowing during the turtle active season may not be necessary. If periodic mowing is the sole method used for maintenance, woody plant cover on the site will likely increase over the long-term, and mowing during the active season will be necessary to inhibit woody plant invasion. In some years, very frequent mowing may be required to reduce woody plant abundance. If this repeated mowing treatment is required in a given year, vegetation should be mowed frequently enough that it does not provide habitat for turtles in that year, provided that turtle habitat is present adjacent or nearby to mitigate the temporary loss of use of the site
- 3) **Percent Mowed** - For sites with > 10 acres of grassland/fields it is recommended that no more than 25%-50% be mowed in any given year. For example, when possible mowing that occurs during the active season should be limited to approximately 25% and areas mowed during the inactive season approximately 50%.
- 4) **Mower Style** – If mowing on a multi-year rotation, avoid flail mower heads with guide bars that ride along the ground. Sickle-bar mowers will likely have the least impact if mowing grassland and fields every 1-5 years. In areas with more woody vegetation >1-2” diameter a Brontosaurus-style mower will likely have the least impact on turtles.
- 5) **Mowing Height** – If mowing during the active season is necessary, retention of mowing stubble to 7 or even 12 inches will reduce mortality, reduce blade wear, and will leave important cover for animals.
- 6) **Directionality** - If mowing during the active season is necessary, start mowing from the center of the field and use a back-and-forth approach, or large circular pattern, to avoid concentrating fleeing animals where they may be killed or stranded. In addition, leave an unmowed 30 ft strip around the perimeter of the field and mow this area last. Most turtles are found in these areas and this provides time for them to react to the mowing activity and move out of the area (see diagram below).



There are three exceptions to this general rule. The first is when a stream is near the field; in these cases it is best to start mowing the side furthest from the stream's edge first and work your way towards the stream. The second exception is when the field is bordered by woodland, start mowing the sections of the field furthest from the woods and mow towards the woods. The third exception is when the field is bordered by a road; In this case start mowing the section next to the road first and work your way across the field.

7) *Mower Speed* – Mowing in low gear or at slow speeds will allow turtles to react and move out of the field.

8) *Unmowed Edge* - Leaving an unmowed field edge in high turtle use areas until after September 15<sup>th</sup>. Eastern box turtles are usually along field edges adjacent to forest and wood turtle are often in field edges closest to nearby streams.

\*We recognize that this mowing rotation may be beyond the capacity of the mowing equipment to which a land manager has access. Grant programs are available that may assist in providing funds to assist in hiring a contractor with appropriate mowing equipment, including the NRCS WHIP Program (<http://www.nrcs.usda.gov/Programs/whip/>) and MassWildlife LIP Program ([http://www.mass.gov/dfwele/dfw/habitat/grants/lip/lip\\_home.htm](http://www.mass.gov/dfwele/dfw/habitat/grants/lip/lip_home.htm)). However, these programs are often temporary and intended to recover the capacity of the landowner to manage the property on their own.

\*\* In some cases herbicide applications may be the best alternative to control woody plants and avoid impacts to turtles. Make sure that you read and follow all state and federal regulations. Use the minimum amount and least toxic herbicide possible for desired outcome. Spot application to individual woody plants is preferred. Most of the herbicides used today are amino acid inhibitors acting on amino acids found only in plants. These prevent the plant from performing metabolically.

**Land with Multiple Uses:** Land where turtles and turtle habitat management is secondary to other management objectives (such as sportsmen's clubs, farmland, recreational areas, etc).

1) *Mower Style* – If mowing on a multi-year rotation, avoid flail mower heads with guide bars that ride along the ground. Sickle-bar mowers will likely have the least impact if mowing grassland and fields every 1-5 years. In areas with more woody vegetation >1-2" diameter a Brontosaurus-style mower will likely have the least impact on turtles.

2) *Blade Height* - Elevating the mowing deck height to 7 or even 12 inches (particularly during the 1<sup>st</sup> haying of the season) will reduce mortality and will leave important cover for animals. Shorter cuts during late summer second hay harvests are less likely to impact turtles.

*Note: It is actually economically wise to mow fields using higher blade heights. The lower portions of the stem have relatively low nutritional value, it reduces blade wear, increases soil moisture retention which can increase yield of the second harvest, and reduces soil erosion (Saumure 2006).*

- 3) *Directionality* - If mowing during the active season is necessary, start mowing from the center of the field and use a back-and-forth approach, or large circular pattern, to avoid concentrating fleeing animals where they may be killed or stranded. In addition, leave an unmowed 10m strip around the perimeter of the field and mow this area last (see diagram in #5 above). Most turtles are found in these areas and this provides time for them to react to the mowing activity and move out of the area.

There are three exceptions to this rule. The first is when a stream is within 100 m; in these cases it is best to start mowing the side furthest from the stream's edge first and work your way towards the stream. The second exception is when the field is bordered by woodland, start mowing the sections of the field furthest from the woods and mow towards the woods. The third exception is when the field is bordered by a road; In this case start mowing the section next to the road first and work your way across the field.

- 4) *Mower Speed* – Mowing in low gear or at slow speeds will allow turtles to react and move out of the field.
- 5) *Unmowed Edge* - Leaving an unmowed field edge in high turtle use areas until after September 15<sup>th</sup>. Eastern box turtles are usually along field edges adjacent to forest and wood turtle are often in field edges closest to nearby streams.

#### **Research Needs:**

- 1) Behavior Data – We need data on the behavioral responses of turtles in reaction to mowers.
- 2) Blade Height Tests During Actual Field Mowing Events – We need to do tests on the blade height in fields as they are actually being mowed as part of regular maintenance at various sites.
- 3) The optimum mowing rotation for turtle habitat management.

#### **References:**

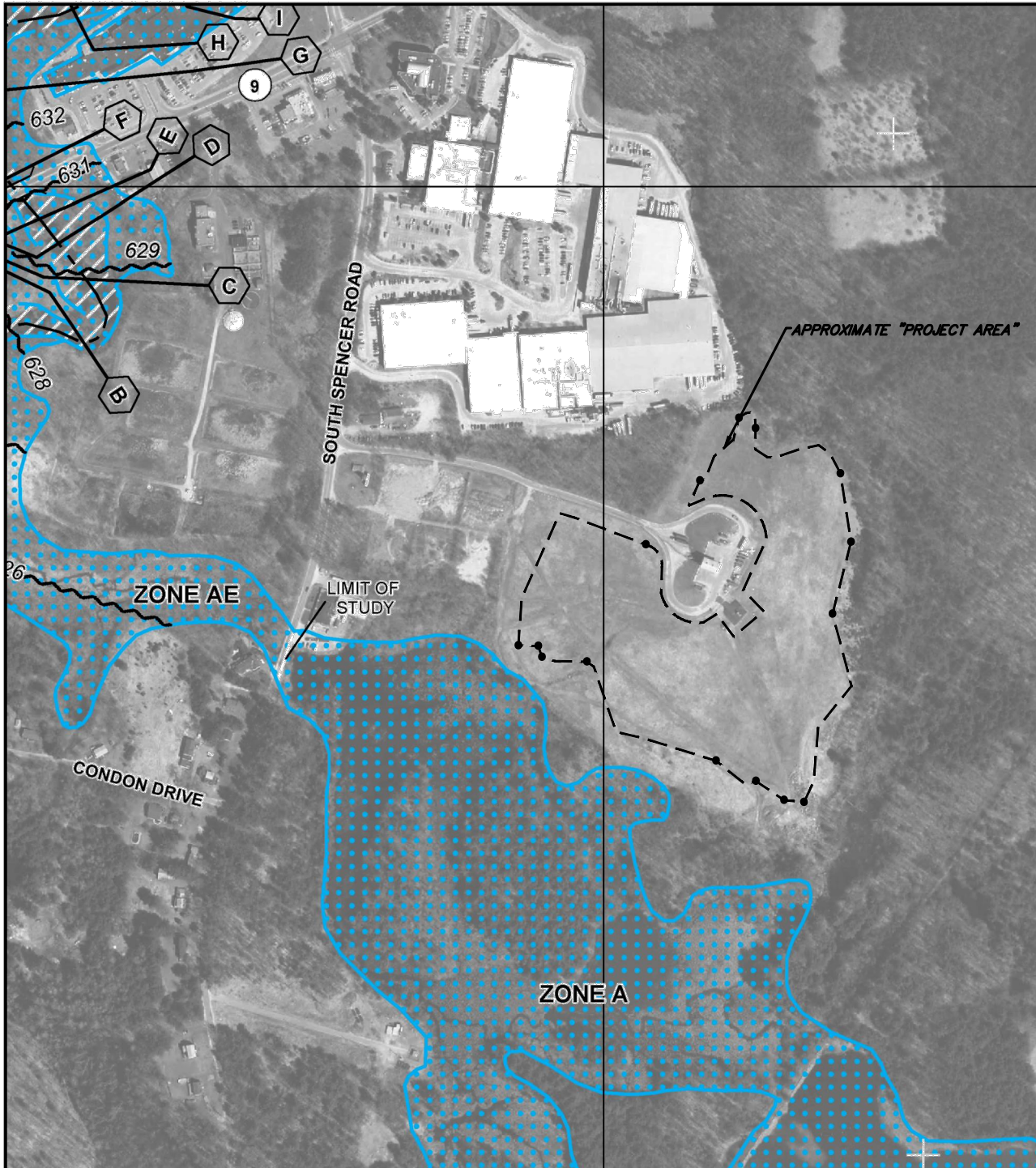
- Jones, M. 2006. Personal Communication. University of Massachusetts, Amherst, MA
- Parren, S. Personal Communication. Vermont Fish and Wildlife
- Saumure, R.A., and J.R. Bider. 1998. Impact of agricultural development on a population of wood turtles (*Clemmys insculpta*) in southern Québec, Canada. *Chelonian Conservation and Biology* 3: 37-45.
- Saumure, R.A., Herman, T.B., and R.D. Titman. 2006. Effects of haying and agricultural practices on a declining species: The North American wood turtle, *Glyptemys insculpta*. *Biological Conservation* *in press*

## Appendix C

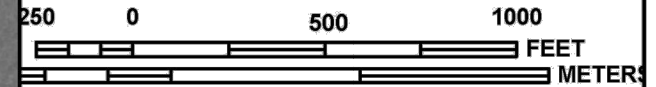
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### Flood Insurance Rate Map





MAP SCALE 1" = 500'



NFP

PANEL 0757E

# FIRM

FLOOD INSURANCE RATE MAP  
WORCESTER COUNTY,  
MASSACHUSETTS  
(ALL JURISDICTIONS)

PANEL 757 OF 1075

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

## CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
EAST BROOKFIELD, TOWN OF	250303	0757	E
NORTH BROOKFIELD, TOWN OF	250323	0757	E
SPENCER, TOWN OF	250335	0757	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



MAP NUMBER  
25027C0757E  
EFFECTIVE DATE  
JULY 4, 2011

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

## Appendix D

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### NRCS Soil Report





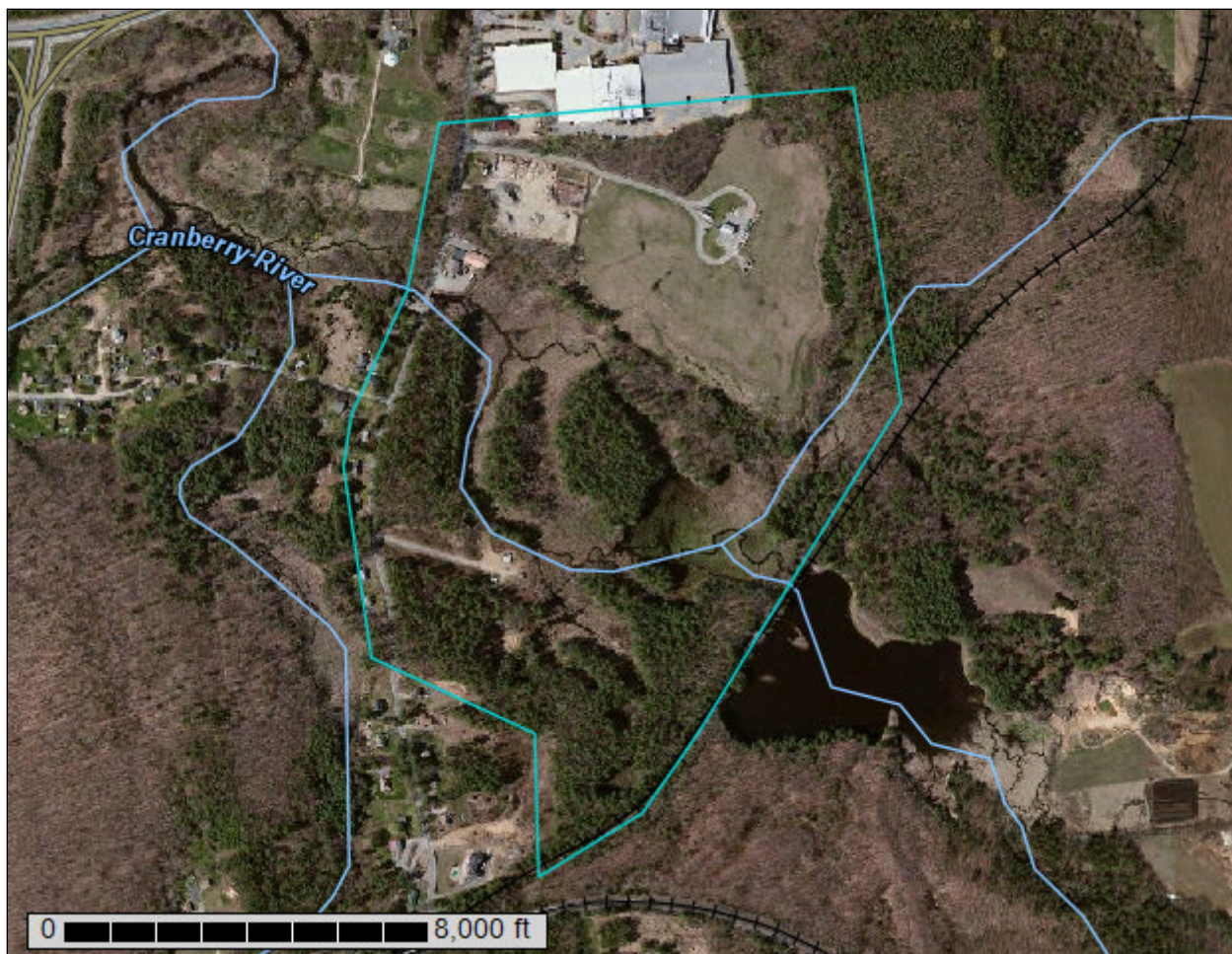
United States  
Department of  
Agriculture

**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 Worcester County, Massachusetts, Southern Part



October 5, 2016

# Preface

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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 (<http://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](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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# Soil Map

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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





# Custom Soil Resource Report


## 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 1:25,000.

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: <http://websoilsurvey.nrcs.usda.gov>  
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: Worcester County, Massachusetts, Southern Part  
Survey Area Data: Version 8, Sep 28, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 9, 2011—May 12, 2011

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

Worcester County, Massachusetts, Southern Part (MA615)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
3A	Scarboro and Walpole soils, 0 to 3 percent slopes	7.2	5.1%
52A	Freetown muck, 0 to 1 percent slopes	31.1	22.2%
245B	Hinckley loamy sand, 3 to 8 percent slopes	38.2	27.3%
245C	Hinckley loamy sand, 8 to 15 percent slopes	21.9	15.7%
305B	Paxton fine sandy loam, 3 to 8 percent slopes	0.0	0.0%
307E	Paxton fine sandy loam, 15 to 35 percent slopes, extremely stony	0.9	0.7%
651	Udorthents, smoothed	40.7	29.1%
<b>Totals for Area of Interest</b>		<b>140.0</b>	<b>100.0%</b>

## 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 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.

## Worcester County, Massachusetts, Southern Part

### 3A—Scarboro and Walpole soils, 0 to 3 percent slopes

#### Map Unit Setting

*National map unit symbol:* 2svks  
*Elevation:* 160 to 480 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

*Scarboro and similar soils:* 45 percent  
*Walpole and similar soils:* 35 percent  
*Minor components:* 20 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Scarboro

##### Setting

*Landform:* Depressions, outwash terraces, drainageways, outwash deltas  
*Landform position (two-dimensional):* Toeslope  
*Landform position (three-dimensional):* Base slope, tread, dip  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Parent material:* Sandy glaciofluvial deposits derived from schist and/or sandy glaciofluvial deposits derived from gneiss and/or sandy glaciofluvial deposits derived from granite

##### Typical profile

*Oe - 0 to 3 inches:* mucky peat  
*A - 3 to 11 inches:* mucky fine sandy loam  
*Cg1 - 11 to 21 inches:* sand  
*Cg2 - 21 to 65 inches:* gravelly coarse sand

##### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Very poorly drained  
*Runoff class:* Negligible  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (1.42 to 14.17 in/hr)  
*Depth to water table:* About 0 to 2 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* Frequent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water storage in profile:* Low (about 4.7 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 5w  
*Hydrologic Soil Group:* A/D  
*Hydric soil rating:* Yes



## Description of Walpole

### Setting

*Landform:* Drainageways on outwash terraces, depressions on outwash plains  
*Landform position (two-dimensional):* Toeslope  
*Landform position (three-dimensional):* Base slope, tread, dip, talf  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Parent material:* Sandy and gravelly glaciofluvial deposits derived from granite and/or schist and/or gneiss

### Typical profile

*O - 0 to 2 inches:* muck  
*A - 2 to 11 inches:* fine sandy loam  
*Bg - 11 to 24 inches:* fine sandy loam  
*Bw - 24 to 28 inches:* sandy loam  
*Cg - 28 to 65 inches:* sand

### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Poorly drained  
*Runoff class:* Negligible  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to high (0.14 to 14.17 in/hr)  
*Depth to water table:* About 0 to 12 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* Moderate (about 6.9 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 4w  
*Hydrologic Soil Group:* B/D  
*Hydric soil rating:* Yes

## Minor Components

### Swansea

*Percent of map unit:* 10 percent  
*Landform:* Bogs, swamps  
*Landform position (three-dimensional):* Dip  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Hydric soil rating:* Yes

### Wareham

*Percent of map unit:* 10 percent  
*Landform:* Depressions  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Hydric soil rating:* Yes

## 52A—Freetown muck, 0 to 1 percent slopes

### Map Unit Setting

*National map unit symbol:* 2t2q9

*Elevation:* 0 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:* Farmland of unique importance

### Map Unit Composition

*Freetown and similar soils:* 85 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Freetown

#### Setting

*Landform:* Bogs, depressions, depressions, kettles, marshes, swamps

*Landform position (two-dimensional):* Toeslope

*Landform position (three-dimensional):* Tread, dip

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Parent material:* Highly decomposed organic material

#### Typical profile

*Oe - 0 to 2 inches:* mucky peat

*Oa - 2 to 79 inches:* muck

#### Properties and qualities

*Slope:* 0 to 1 percent

*Percent of area covered with surface fragments:* 0.0 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Very poorly drained

*Runoff class:* Negligible

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to high  
(0.14 to 14.17 in/hr)

*Depth to water table:* About 0 to 6 inches

*Frequency of flooding:* Rare

*Frequency of ponding:* Frequent

*Available water storage in profile:* Very high (about 19.2 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 5w

*Hydrologic Soil Group:* B/D

*Hydric soil rating:* Yes

## Minor Components

### Swansea

*Percent of map unit:* 5 percent  
*Landform:* Marshes, swamps, bogs, depressions, depressions, kettles  
*Landform position (two-dimensional):* Toeslope  
*Landform position (three-dimensional):* Tread, dip  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Hydric soil rating:* Yes

### Scarboro

*Percent of map unit:* 5 percent  
*Landform:* Depressions, drainageways  
*Landform position (two-dimensional):* Toeslope  
*Landform position (three-dimensional):* Base slope, tread, dip  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Hydric soil rating:* Yes

### Whitman

*Percent of map unit:* 5 percent  
*Landform:* Depressions, drainageways  
*Landform position (two-dimensional):* Toeslope  
*Landform position (three-dimensional):* Base slope  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Hydric soil rating:* Yes

## 245B—Hinckley loamy sand, 3 to 8 percent slopes

### Map Unit Setting

*National map unit symbol:* 2svm8  
*Elevation:* 0 to 1,430 feet  
*Mean annual precipitation:* 36 to 53 inches  
*Mean annual air temperature:* 39 to 55 degrees F  
*Frost-free period:* 140 to 250 days  
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Hinckley and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Hinckley

#### Setting

*Landform:* Eskers, outwash deltas, moraines, outwash terraces, outwash plains, kame terraces, kames  
*Landform position (two-dimensional):* Summit, shoulder, backslope, footslope

## Custom Soil Resource Report

*Landform position (three-dimensional):* Base slope, crest, nose slope, side slope, riser, tread  
*Down-slope shape:* Linear, convex, concave  
*Across-slope shape:* Convex, linear, concave  
*Parent material:* Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

### Typical profile

*Oe - 0 to 1 inches:* moderately decomposed plant material  
*A - 1 to 8 inches:* loamy sand  
*Bw1 - 8 to 11 inches:* gravelly loamy sand  
*Bw2 - 11 to 16 inches:* gravelly loamy sand  
*BC - 16 to 19 inches:* very gravelly loamy sand  
*C - 19 to 65 inches:* very gravelly sand

### Properties and qualities

*Slope:* 3 to 8 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Excessively drained  
*Runoff class:* Very 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 to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water storage in profile:* Very low (about 3.0 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3s  
*Hydrologic Soil Group:* A  
*Hydric soil rating:* No

## Minor Components

### Windsor

*Percent of map unit:* 8 percent  
*Landform:* Moraines, outwash terraces, outwash plains, kame terraces, kames, eskers, outwash deltas  
*Landform position (two-dimensional):* Summit, shoulder, backslope, footslope  
*Landform position (three-dimensional):* Nose slope, side slope, base slope, crest, riser, tread  
*Down-slope shape:* Linear, convex, concave  
*Across-slope shape:* Convex, linear, concave  
*Hydric soil rating:* No

### Sudbury

*Percent of map unit:* 5 percent  
*Landform:* Kame terraces, outwash deltas, moraines, outwash terraces, outwash plains  
*Landform position (two-dimensional):* Backslope, footslope  
*Landform position (three-dimensional):* Side slope, base slope, head slope, tread  
*Down-slope shape:* Concave, linear  
*Across-slope shape:* Linear, concave  
*Hydric soil rating:* No

**Agawam**

*Percent of map unit:* 2 percent

*Landform:* Kames, eskers, outwash deltas, moraines, outwash terraces, outwash plains, kame terraces

*Landform position (two-dimensional):* Summit, shoulder, backslope, footslope

*Landform position (three-dimensional):* Nose slope, side slope, base slope, crest, riser, tread

*Down-slope shape:* Linear, convex, concave

*Across-slope shape:* Convex, linear, concave

*Hydric soil rating:* No

**245C—Hinckley loamy sand, 8 to 15 percent slopes**

**Map Unit Setting**

*National map unit symbol:* 2svm9

*Elevation:* 0 to 1,480 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**

*Hinckley and similar soils:* 85 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Hinckley**

**Setting**

*Landform:* Outwash terraces, outwash plains, kame terraces, kames, eskers, outwash deltas, moraines

*Landform position (two-dimensional):* Shoulder, toeslope, footslope, backslope

*Landform position (three-dimensional):* Nose slope, side slope, crest, head slope, riser

*Down-slope shape:* Linear, concave, convex

*Across-slope shape:* Convex, linear, concave

*Parent material:* Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

**Typical profile**

*Oe - 0 to 1 inches:* moderately decomposed plant material

*A - 1 to 8 inches:* loamy sand

*Bw1 - 8 to 11 inches:* gravelly loamy sand

*Bw2 - 11 to 16 inches:* gravelly loamy sand

*BC - 16 to 19 inches:* very gravelly loamy sand

*C - 19 to 65 inches:* very gravelly sand

**Properties and qualities**

*Slope:* 8 to 15 percent

*Depth to restrictive feature:* More than 80 inches

## Custom Soil Resource Report

*Natural drainage class:* Excessively drained

*Runoff class:* Very 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 to very slightly saline (0.0 to 2.0 mmhos/cm)

*Available water storage in profile:* Low (about 3.1 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 4e

*Hydrologic Soil Group:* A

*Hydric soil rating:* No

### Minor Components

#### Windsor

*Percent of map unit:* 5 percent

*Landform:* Outwash plains, kame terraces, kames, eskers, outwash deltas, moraines, outwash terraces

*Landform position (two-dimensional):* Shoulder, backslope, footslope, toeslope

*Landform position (three-dimensional):* Nose slope, side slope, crest, head slope, riser

*Down-slope shape:* Convex, linear, concave

*Across-slope shape:* Linear, convex, concave

*Hydric soil rating:* No

#### Merrimac

*Percent of map unit:* 5 percent

*Landform:* Outwash plains, kames, eskers, moraines, outwash terraces

*Landform position (two-dimensional):* Shoulder, backslope, footslope, toeslope

*Landform position (three-dimensional):* Side slope, crest, head slope, nose slope, riser

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Hydric soil rating:* No

#### Sudbury

*Percent of map unit:* 5 percent

*Landform:* Moraines, outwash terraces, outwash plains, kame terraces, outwash deltas

*Landform position (two-dimensional):* Backslope, footslope

*Landform position (three-dimensional):* Base slope, tread

*Down-slope shape:* Concave, linear

*Across-slope shape:* Linear, concave

*Hydric soil rating:* No

### **305B—Paxton fine sandy loam, 3 to 8 percent slopes**

#### **Map Unit Setting**

*National map unit symbol:* 2t2qp  
*Elevation:* 0 to 1,570 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:* All areas are prime farmland

#### **Map Unit Composition**

*Paxton and similar soils:* 80 percent  
*Minor components:* 20 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### **Description of Paxton**

##### **Setting**

*Landform:* Ground moraines, hills, drumlins  
*Landform position (two-dimensional):* Shoulder, summit, backslope  
*Landform position (three-dimensional):* Side slope, crest, nose slope  
*Down-slope shape:* Linear, convex  
*Across-slope shape:* Convex  
*Parent material:* Coarse-loamy lodgment till derived from gneiss, granite, and/or schist

##### **Typical profile**

*Ap - 0 to 8 inches:* fine sandy loam  
*Bw1 - 8 to 15 inches:* fine sandy loam  
*Bw2 - 15 to 26 inches:* fine sandy loam  
*Cd - 26 to 65 inches:* gravelly fine sandy loam

##### **Properties and qualities**

*Slope:* 3 to 8 percent  
*Depth to restrictive feature:* 18 to 39 inches to densic material  
*Natural drainage class:* Well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.14 in/hr)  
*Depth to water table:* About 18 to 37 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water storage in profile:* Low (about 3.1 inches)

##### **Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2s  
*Hydrologic Soil Group:* C  
*Hydric soil rating:* No

## Minor Components

### Woodbridge

*Percent of map unit:* 9 percent  
*Landform:* Drumlins, ground moraines, hills  
*Landform position (two-dimensional):* Summit, footslope, backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

### Ridgebury

*Percent of map unit:* 6 percent  
*Landform:* Depressions, ground moraines, drainageways, hills  
*Landform position (two-dimensional):* Toeslope, footslope, backslope  
*Landform position (three-dimensional):* Base slope, head slope, dip  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Hydric soil rating:* Yes

### Charlton

*Percent of map unit:* 5 percent  
*Landform:* Hills  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

## 307E—Paxton fine sandy loam, 15 to 35 percent slopes, extremely stony

### Map Unit Setting

*National map unit symbol:* 2w67m  
*Elevation:* 310 to 1,130 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:* Not prime farmland

### Map Unit Composition

*Paxton, extremely stony, and similar soils:* 75 percent  
*Minor components:* 25 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Paxton, Extremely Stony

#### Setting

*Landform:* Hills, ground moraines, drumlins  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Linear, convex  
*Across-slope shape:* Convex, linear



## Custom Soil Resource Report

*Parent material:* Coarse-loamy lodgment till derived from gneiss, granite, and/or schist

### Typical profile

*Oe - 0 to 2 inches:* moderately decomposed plant material  
*A - 2 to 10 inches:* fine sandy loam  
*Bw1 - 10 to 17 inches:* fine sandy loam  
*Bw2 - 17 to 28 inches:* fine sandy loam  
*Cd - 28 to 67 inches:* gravelly fine sandy loam

### Properties and qualities

*Slope:* 15 to 35 percent  
*Percent of area covered with surface fragments:* 9.0 percent  
*Depth to restrictive feature:* 20 to 43 inches to densic material  
*Natural drainage class:* Well drained  
*Runoff class:* High  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.14 in/hr)  
*Depth to water table:* About 18 to 37 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water storage in profile:* Low (about 4.7 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7s  
*Hydrologic Soil Group:* C  
*Hydric soil rating:* No

### Minor Components

#### Charlton, extremely stony

*Percent of map unit:* 20 percent  
*Landform:* Hills  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Hydric soil rating:* No

#### Woodbridge, extremely stony

*Percent of map unit:* 4 percent  
*Landform:* Drumlins, hills, ground moraines  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

#### Ridgebury, extremely stony

*Percent of map unit:* 1 percent  
*Landform:* Ground moraines, drumlins, depressions, hills, drainageways  
*Landform position (two-dimensional):* Toeslope, footslope  
*Landform position (three-dimensional):* Head slope, base slope  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave

*Hydric soil rating: Yes*

## **651—Udorthents, smoothed**

### **Map Unit Setting**

*National map unit symbol: 9bfc*

*Elevation: 0 to 3,000 feet*

*Mean annual precipitation: 32 to 50 inches*

*Mean annual air temperature: 45 to 50 degrees F*

*Frost-free period: 145 to 240 days*

*Farmland classification: Not prime farmland*

### **Map Unit Composition**

*Udorthents and similar soils: 80 percent*

*Urban land: 20 percent*

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Udorthents**

#### **Setting**

*Parent material: Made land over firm coarse-loamy basal till and/or dense coarse-loamy lodgment till*

#### **Typical profile**

*H1 - 0 to 6 inches: variable*

*H2 - 6 to 60 inches: variable*

#### **Properties and qualities**

*Slope: 0 to 25 percent*

*Depth to restrictive feature: More than 80 inches*

*Runoff class: Low*

*Capacity of the most limiting layer to transmit water (Ksat): Moderately low to very high (0.06 to 20.00 in/hr)*

*Depth to water table: More than 80 inches*

*Frequency of flooding: None*

*Frequency of ponding: None*

#### **Interpretive groups**

*Land capability classification (irrigated): None specified*

*Land capability classification (nonirrigated): 6s*

*Hydrologic Soil Group: A*

*Hydric soil rating: No*

## Appendix E

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### Pre-Application Report

<b>Pre-Application Report</b>	Applicant:	Town of Spencer		
	Pre-Application Request Date:	11/15/2016	Preparation Date:	11/28/2016
	Prepared by:	Andy Garsils	Revision # (if any):	0

### I. Executive Summary:

- A. Interconnection Application:** The Applicant (noted above), has submitted a request for a Pre-Application Report (Report) for the interconnection of a generation system (located at the proposed location(s) noted below) to the National Grid (Company) Electric Power System (EPS).
- B. Pre-Application Process:** The proposed location was reviewed (as per the Standards for Interconnecting Distributed Generation referenced below) to: (1) determine the characteristics of the existing Company EPS near the proposed location(s), (2) identify the aggregate amount of other proposed and existing generation capacity connected to the nearby Company EPS, and (3) identify other potential system constraints or critical items that may impact the proposed generation system(s).
- C. Further Inquiries:** All additional questions and comments related to this report should be directed to National Grid's Distributed Generation Services email account: Distributed.Generation@nationalgrid.com.

### II. Proposed Location Information:

The proposed location information provided in the table below is based on the information provided by the Applicant (i.e. Interconnecting Customer) in the **Exhibit B** - Pre-Application Report Form, which has been attached to this Report.

<b>Table of Proposed Location Information</b>		Proposed kW(AC):	3,000	Phase:	3
Proposed Energy Source:	Solar	Existing Account (if applicable):			
Street Address:	17 South Spencer Rd				
City:	Spencer	State:	MA	Zip Code:	01562
GPS (North):		GPS (West):			

### III. The Company's Electric Power System (EPS):

- A.** As required by the Standards for Interconnecting Distributed Generation (referenced below), the Company must identify feeders within ¼ mile of the proposed interconnection site. Since many locations may not have any adequate feeders within ¼ mile, the Company may elect to provide information for the nearest adequate feeder(s) to the proposed location.

<b>Table of Information for Nearest Feeder</b>					
Feeder Number:	01-552L3	Radial or Network?	radial		
Substation:	Meadow Street	Voltage at Substation:	13.2 kV		
Voltage (near location):	13.2 kV	Phase (near location):	2		
Distance to three-phase (if not within 1/4 mile of proposed location):					
DG on Feeder:	368 kW	Pending DG:	51 kW	Existing DG:	317 kW
Included in total above:		Pending PV:	51 kW	Existing PV:	317 kW

<b>Table of Information for Second Nearest Feeder (if available)</b>					
Feeder Number:		Radial or Network?			
Substation:		Voltage at Substation:	kV		
Voltage (near location):	kV	Phase (near location):			
Distance to three-phase (if not within 1/4 mile of proposed location):					
DG on Feeder:	kW	Pending DG:	kW	Existing DG:	kW
Included in total above:		Pending PV:	kW	Existing PV:	kW

### **B. Other Known System Constraints:**

- Recent changes in the Massachusetts net metering rules may have further restrictions regarding the size of a distributed generation system that can be offered Net Metering Services on any one single parcel of land. Refer to:

<http://www.env.state.ma.us/dpu/docs/electric/11-11/82412dpuord.pdf>

2. A conceptual grade cost estimate of the required system modifications will be determined during the System Impact Study (SIS). The cost for line extensions / re-conductoring of radial feeders can approach or exceed \$500,000/mile depending on the level of complexity. State and Federal taxes apply to payments for system modifications, including feeder line extensions. The Point of Interconnection, circuit characteristics, and/or other projects may affect feasibility of installing the proposed generation capacity on this circuit at the proposed location. Also, the available distributed generation capacity is open to other project proponents unless and until a complete application is received.

3. Additional system constraints particular to the proposed location (if applicable):



4. This Pre-Application Report is a non-binding report of existing National Grid electrical facilities in the area of your proposed project. This report shall not be used to infer the ability to interconnect any project to any of the existing National Grid facilities. That determination can only be made following receipt of a completed Interconnection Application and National Grid completing the applicable review process as outlined in the Tariff.

#### **IV. References:**

- A. National Grid's Massachusetts Distributed Generation Websites:
  - 1. Commercial: [http://www.nationalgridus.com/masselectric/business/energyeff/distributed\\_generation.asp](http://www.nationalgridus.com/masselectric/business/energyeff/distributed_generation.asp)
  - 2. Residential: [http://www.nationalgridus.com/masselectric/home/energyeff/distributed\\_generation.asp](http://www.nationalgridus.com/masselectric/home/energyeff/distributed_generation.asp)
- B. National Grid's Nantucket Distributed Generation Websites:
  - 1. Commercial: [http://www.nationalgridus.com/nantucket/business/energyeff/distributed\\_generation.asp](http://www.nationalgridus.com/nantucket/business/energyeff/distributed_generation.asp)
  - 2. Residential: [http://www.nationalgridus.com/nantucket/home/energyeff/distributed\\_generation.asp](http://www.nationalgridus.com/nantucket/home/energyeff/distributed_generation.asp)
- C. National Grid's Massachusetts Standards for Interconnecting Distributed Generation:
  - [http://www.nationalgridus.com/non\\_html/Interconnect\\_stds\\_MA.pdf](http://www.nationalgridus.com/non_html/Interconnect_stds_MA.pdf)
- D. Design Standards:
  - 1. ESB 756 (Appendix C) - Requirements for Parallel Generation (Massachusetts):  
[http://www.nationalgridus.com/non\\_html/shared\\_constr\\_esb756.pdf](http://www.nationalgridus.com/non_html/shared_constr_esb756.pdf)
  - 2. ESB 750 - Specifications for Electrical Installations:  
[http://www.nationalgridus.com/non\\_html/shared\\_constr\\_esb750.pdf](http://www.nationalgridus.com/non_html/shared_constr_esb750.pdf)
  - 3. National Grid's Phone Line Installation Guide:  
[http://www.nationalgridus.com/non\\_html/Expedited%20Standard%20Interconnection/Phone%20Line%20Installation.pdf](http://www.nationalgridus.com/non_html/Expedited%20Standard%20Interconnection/Phone%20Line%20Installation.pdf)
- E. Other Guidance Documents:
  - 1. National Grid's Massachusetts Distributed Generation QuickGuide:  
[http://www.nationalgridus.com/non\\_html/MA\\_DG\\_Design\\_QuickGuide.pdf](http://www.nationalgridus.com/non_html/MA_DG_Design_QuickGuide.pdf)
  - 2. National Grid's Witness Test Procedure Guideline:  
[http://www.nationalgridus.com/non\\_html/Expedited%20Standard%20Interconnection/NGrid%20Witness%20Test%20Guidelines%20Feb%202012.pdf](http://www.nationalgridus.com/non_html/Expedited%20Standard%20Interconnection/NGrid%20Witness%20Test%20Guidelines%20Feb%202012.pdf)

## Appendix F

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### Revised Solar and Combined Permitting Bylaws

**ARTICLE 2 DEFINITIONS****2.2 Definitions.**

UTILITY, MAJOR: Infrastructure services providing Town-wide service, such as but not limited to public water supply wells, water towers, waste treatment plants, communication towers, electrical substations, and renewable energy sources (such as hydro but excluding wind and solar).

**ARTICLE 4.2 USE TABLE**

Principal Uses	RR	SR	LR	VR	TC	C	I
Roof Mounted Solar Photovoltaic Generating Installation	P	P	P	P	P	P	P
Small Scale (15kW or less) DC Photovoltaic Generating Installation	SPP/SPR	SPP/SPR	-	-	-	SPR	SPR
Medium Scale (greater than 15kW to 200kW) DC Solar Photovoltaic Generating Installation	SPP/SPR	-	-	-	-	SPP/SPR	SPR
Large Scale (greater than 200kW) Solar Photovoltaic Generating Installation	SPP/SPR	-	-	-	-	-	SPP/SPR

**ARTICLE 4.8.9 SOLAR PHOTOVOLTAIC GENERATING INSTALLATIONS**

- A. Purpose - The purpose of this bylaw is to facilitate the creation of new Solar Photovoltaic Generating Installations by providing standards for the placement, design, construction, operation, monitoring, modification and removal of such installations that address public safety, minimize impacts on the environment, scenic, natural and historic resources and to provide adequate financial assurance for the eventual decommissioning of such installations consistent with the intent of Chapter 40A Section 3 of the Massachusetts General Laws.
- B. Applicability - The provisions set forth in this section shall apply to the construction, operation, repair and/or removal of Photovoltaic Generating Installations as permitted in Article 4.2. Use Regulations. All such facilities require a building permit and must comply with all applicable local, state and federal requirements, including but not limited to all applicable safety, construction, electrical, and communications requirements and other applicable provisions of Spencer's Zoning Bylaws.

### C. Definitions

Photovoltaic System (also referred to as Photovoltaic Installation): An active solar energy system that converts solar energy directly into electricity.

Solar Energy System, Grid-Intertie: A photovoltaic system that is connected to an electric circuit served by an electric utility.

Solar Energy System, Ground-Mounted: An Active Solar Energy System that is structurally mounted to the ground and is not roof-mounted; may be of any size (small-, medium- or large-scale).

Solar Energy System, Off-Grid: A photovoltaic solar energy system in which the circuits energized by the solar energy system are not electrically connected in any way to electric circuits that are served by an electric utility.

### D. General Requirements

1. The construction and operation of all Photovoltaic Generating Installations shall be consistent with all applicable local, state and federal requirements, including but not limited to all applicable safety, construction, electrical, and communications requirements. All buildings and fixtures forming part of a Photovoltaic Generating Installation shall be constructed in accordance with the Massachusetts State Building Code.
2. Photovoltaic Generating Installations shall not be constructed, installed or modified as provided in this section without first obtaining a building permit and paying any required fees.
3. Noise generated by Photovoltaic Generating Installations and associated equipment and machinery shall conform to applicable state and local noise regulations, including the DEP's Division of Air Quality noise regulations, 310 CMR 7.10. A source of sound will be considered in violation of said regulations if the source:
  - (a) Increases the broadband sound level by more than 10 db(A) above ambient, or
  - (b) Produces a "pure tone" condition, when an octave band center frequency sound pressure level exceeds the two (2) adjacent center frequency sound pressure levels by three (3) decibels or more.

Said criteria are measured both at the property line and at the nearest inhabited residence. "Ambient" is defined as the background A-weighted sound level that is exceeded 90% of the time measured during equipment hours, unless established by



other means with the consent of the DEP.

- E. The Photovoltaic Generating Installation's owner or operator shall maintain the facility in good condition. Maintenance shall include, but not be limited to, painting, structural repairs, and integrity of security measures. Site access shall be maintained to a level acceptable to the local Fire Chief and Emergency Management Director. The owner or operator shall be responsible for the cost of maintaining the Solar Electric Generating Facilities and any access road(s).
- F. Required Submission Documents – Special Permit And/or Site Plan Review Applications shall include:
  - 1. A properly completed and executed application form and application fee.
  - 2. Any requested Waivers
  - 3. Name, address, phone number and signature of the project proponent, as well as all co-proponents or property owners, if any.
  - 4. Name, contact information and signature of any agents representing the project proponent.
  - 5. Name, address, and contact information for proposed system installer.
  - 6. Documentation of actual or prospective access and control of the project site sufficient to allow for construction and operation of the proposed solar electric installation.
  - 7. Proposed Hours of Operation
  - 8. Route by which construction materials and equipment will be delivered to site.
  - 9. Blueprints or drawings of the solar electric installation signed by a Professional Engineer licensed to practice in the Commonwealth of Massachusetts showing the proposed layout of the system and any potential shading from nearby structures.
  - 10. Utility Notification - evidence that the utility company that operates the electrical grid where the installation is to be located has been informed of the solar electric installation owner or operator's intent to install an interconnected facility and acknowledges receipt of such notification. A copy of an Interconnection Application filed with the utility including a one or three line electrical diagram detailing the solar electric installation, associated components, and electrical interconnection methods, with all National Electrical Code compliant disconnects and overcurrent devices. Off-grid systems shall be exempt from this requirement.
  - 11. Documentation of the major system components to be used, including the electric

generating components, transmission systems, mounting system, inverter, etc. If the proposed system is located in Aquifer Protection District, documentation must include information on elements of the system that use materials that are in any way either hazardous or toxic.

12. Documentation by an acoustical engineer of the noise levels projected to be generated by the installation.
13. Operation & Maintenance Plan for the operation and maintenance of the Photovoltaic Generating Installation, which shall include measures for maintaining safe access to the installation, storm water and vegetation controls, and general procedures for operational maintenance of the installation.
14. Abandonment & Decommissioning Plan - Any Photovoltaic Generating Installation which has reached the end of its useful life or has been abandoned (i.e. when it fails to operate for more than one year without the written consent of the Planning Board) shall be removed. The owner or operator shall physically remove the installation within 150 days of abandonment or the proposed date of decommissioning. The owner or operator shall notify the Planning Board by certified mail of the proposed date of discontinued operations and plans for removal. The Abandonment & Decommissioning Plan shall include a detailed description of how all of the following will be addressed:
  - (a) Physical removal of all structures; equipment, building, security barriers and transmission lines from the site, including any materials used to limit vegetation.
  - (b) Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.
  - (c) Stabilization or re-vegetation of the site as necessary to minimize erosion. The Planning Board may allow the owner or operator to leave landscaping or designated below-grade foundations in order to minimize erosion and disruption to vegetation.
  - (d) Description of financial surety for decommissioning - Proponents of Solar Electric Generating Facilities shall provide a form of surety, either through escrow account, bond or other form of surety approved by the Planning Board to cover the cost of removal in the event the Town must remove the installation and remediate the landscape, in an amount and form determined to be reasonable by the Planning Board, but in no event to exceed more than 125 percent of the cost of removal and compliance with the additional requirements set forth herein, as determined by the project proponent and the Town. Such surety will not be required for municipal or state-owned facilities. The project proponent shall submit a fully inclusive estimate of

the costs associated with removal, prepared by a qualified engineer. The amount shall include a mechanism for calculating increased removal costs due to inflation.

- (e) All legal documents required to enable the Town to exercise its rights and responsibilities under the plan to decommission the site, enter the property and physically remove the installation.

15. Proof of liability insurance

16. A Site Plan with stamp and signature of Professional Engineer licensed to practice in Massachusetts that prepared the plans including;

- (a) Everything required under Section 7.4 Site Plan Review, plus all of the following;
- (b) Existing Conditions Plan, showing property lines, map and lot from the Assessor's records, and physical features, including roads and topography, for the entire project site signed and sealed by a Registered Massachusetts Land Surveyor;
- (c) Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, screening vegetation, fencing or structures including their height and placement of system signed and including, solar arrays and required appurtenances;
- (d) An estimate of earthwork operations listing the amount of soil material to be imported or exported from the site.
- (e) Locations of wetlands and Priority Habitat Areas defined by the Natural Heritage & Endangered Species Program (NHESP);
- (f) Locations of Floodplain area, as well as Aquifer Protection District (Zone 2)
- (g) Existing isolated trees 10" caliper or larger and shrubs.
- (h) Zoning district designation for the parcel(s) of land comprising the project site (submission of a copy of a zoning map with the parcel(s) identified is suitable for this purpose).
- (i) Materials, delivery, equipment staging area.
- (j) Proposed installation of screening vegetation or structures

G. Design and Performance Standards

1. Minimum Dimensional and Setback Requirements For Solar Electric Generating Facilities Appurtenant Structures (including but not limited to, equipment shelters, storage facilities, transformers, fencing, parking and substations):

- (a) Lot size and frontage: Solar Electric Generating Facilities are considered a principal use and require the minimum lot size, lot width and frontage required for principal structures in the underlying district.
- (b) Front yard: The same as in the underlying district except that no facilities are

permitted between the front of the principal building and the front lot line.

(c) Side and Rear yard

- Small Scale: equal to its height
- Medium/Intermediate/Large Scale: same as required for underlying district

(d) Maximum Height of Structures

- Residential Districts: 10'
- Non-Residential Districts: 15'

2. All appurtenant structures to Solar Electric Generating Facilities shall be architecturally compatible with each other. Whenever reasonable, structures should be screened from view by vegetation and/or joined or clustered to avoid adverse visual impacts.
3. Visual Impact Mitigation - The plan for a ground-mounted solar photovoltaic installation shall be designed to maximize the preservation of on-site and abutting natural and developed features. In natural (undeveloped) areas, existing vegetation shall be retained to the greatest extent possible, especially where such vegetation provides a benefit to the natural environment. In developed areas, the design of the installation shall consider and incorporate human-designed landscape features to the greatest extent, including contextual landscaping and landscape amenities that complement the physical features of the site and abutting properties. Whenever reasonable, structures should be screened from view by vegetation and/or joined or clustered to avoid adverse visual impacts and be architecturally compatible with each other. Vegetation shall be of varieties native to New England and a mix of deciduous and evergreen species. Vegetative screening shall reach a mature form to effectively screen the installation within five years of installation. The mature height of the vegetated screening shall be such that the installation's structures are not apparent to a person upon any public road and viewing the installation from a height of 10 feet. Planting of the vegetative screening shall be completed prior to final approval of the photovoltaic installation by the Building Inspector.
4. Lighting - Lighting of Solar Electric Generating Facilities shall be consistent with local, state and federal law. Lighting of other parts of the installation, such as appurtenant structures, shall be limited to that required for safety and operational purposes, and shall be reasonably shielded from abutting properties. Lighting of the Photovoltaic Generating Installation shall be directed downward and shall incorporate full cut-off fixtures to reduce light pollution.
5. Signage - Solar Electric Generating Facilities shall not be used for displaying any advertising signage except for reasonable identification of the manufacturer or operator of the solar electric installation. Signs on Solar Electric Generating Facilities shall comply with Spencer's sign bylaw. A sign consistent with Spencer's sign bylaw shall be required to identify the owner, operator and interconnected utility and provide a 24-hour emergency contact phone number.

6. Utility Connections - Reasonable efforts, as determined by the Planning Board, shall be made to place all utility connections from the Photovoltaic Generating Installation underground, depending on appropriate soil conditions, shape, and topography of the site and any requirements of the utility provider. Electrical transformers for utility interconnections may be above ground if required by the utility provider.
7. Roads - Access roads shall be constructed to minimize grading, removal of stone walls or trees and minimize impacts to environmental or historic resources.
8. Vegetation Management - Herbicides, pesticides, or chemical fertilizers shall not be used to manage vegetation at the Photovoltaic Generating Installation. Mowing, grazing or using geotextile materials underneath the solar array are possible alternatives. In the Aquifer Protection District, low growing grasses are optimal. Other grasses must be regularly mowed or grazed so as to minimize the amount and height of "fuel" available in case of fire.

All land associated with the ground-mounted solar installation shall be covered and grown in natural vegetation. All ground surface areas beneath solar arrays and setback areas shall be pervious to maximize on-site infiltration of stormwater. Impervious paving of areas beneath solar arrays is prohibited. To the greatest extent possible, a diversity of plant species shall be used, with preference given to species that are native to New England. Use of plants identified by the most recent copy of the "Massachusetts Prohibited Plant List" maintained by the Massachusetts Department of Agricultural Resources is prohibited. Herbicides shall be applied only by properly licensed personnel in conformance with all applicable state regulations.

9. Hazardous Materials - If hazardous materials are utilized within the solar electric equipment then impervious containment areas capable of controlling any release to the environment and to prevent potential contamination of ground water are required. Hazardous materials stored, used, or generated on site shall not exceed the amount for a Very Small Quantity Generator of Hazardous Waste as defined by the DEP pursuant to Mass DEP regulations 310 CMR 30.000 and shall meet all requirements of the DEP including storage of hazardous materials in a building with an impervious floor that is not adjacent to any floor drains to prevent discharge to the outdoor environment.
10. Impact on Agricultural and Environmentally Sensitive Land - The Photovoltaic Generating Installation shall be designed to minimize impacts to agricultural and environmentally sensitive land and to be compatible with continued agricultural use of the land whenever possible. No more than 50-percent of the total land area proposed for the solar electric field may be occupied by the solar panels, with the remainder of the land remaining as undeveloped open space left in its natural state.
11. Drainage - The design shall minimize the use of concrete and other impervious materials to the greatest extent possible, to minimize erosion and transport of

sediment, and prevent contamination of surface water and groundwater from operations on the premises involving the use, storage, handling, or containment of hazardous substances. A permit in accordance with the Spencer Erosion and Sediment Control for Stormwater Management shall be required and can be run concurrent with the approval process under this section.

12. Projects shall be designed to:

- (a) minimize the volume of cut and fill, the number of removed trees 10" caliper or larger, the length of removed stone walls, the area of wetland vegetation displaced, the extent of stormwater flow increase from the site, soil erosion, and threat of air and water pollution
- (b) maximize pedestrian and vehicular safety both on the site and entering and exiting the site;
- (c) minimize obstruction of scenic views from publicly accessible locations;
- (d) minimize visual intrusion by controlling the visibility of parking, storage, or other outdoor service areas viewed from public ways or premises residentially used or zoned;
- (e) minimize glare from headlights and light trespass;
- (f) Ensure adequate access to each structure for fire and service equipment and adequate provision for utilities and stormwater drainage.

13. Emergency Services - The Photovoltaic Generating Installation's owner or operator shall provide a copy of the project summary, electrical schematic, and site plan to the local Fire Chief. Upon request the owner or operator shall cooperate with local emergency services in developing an emergency response plan. All means of shutting down the Photovoltaic Generating Installation shall be clearly marked. The owner or operator shall identify a responsible person for public inquiries throughout the life of the installation.

14. Land Clearing, Soil Erosion and Habitat Impacts - Clearing of natural vegetation shall be limited to what is necessary for the construction, operation and maintenance of the Photovoltaic Generating Installation or otherwise prescribed by applicable laws, regulations, and bylaws. Such installations shall not occur on any slopes greater than 15% in order to minimize erosion. No more than 50% of the land parcel utilized for Solar Electric Generating Facilities shall contain land requiring clearing of forest.

15. No topsoil shall be removed from the land parcel under consideration for Solar Electric Generating Facilities. If earthworks operations are required, topsoil shall be

stockpiled within the property bounds and protected against erosion until such time earthwork operations are completed and topsoil can be re-spread over parcel. Earthworks shall be planned to limit export of soil material (non-topsoil) to 1000 cubic yards per acre affected by installation. A detailed earthworks estimate is a required submittal component proving this quantity is maintained.

- H. Waivers - The Planning Board may, upon the prior written request of the applicant, waive any of the requirements of this sub-section, but must state their reasons for doing so in writing as part of their decision.

## Proposed COMBINED PERMITTING Zoning Bylaw Revisions

(6-21-16)

The intent of these revisions is to consolidate multiple zoning permits into a single application and permitting process before a single Board. Currently most Special Permits are issued by the Zoning Board of Appeals and all Site Plan Reviews are issued by the Planning Board. This requires two separate applications, two separate filing fees and two sets of Public Hearings the applicant and abutters have to attend for the same project. These proposed revisions include changes requiring that whichever Board issues the Special Permit also issues the Site Plan Review, and redistributing the Special Permit responsibilities between the Planning Board and Zoning Board of Appeals.

### 4.1 Use Designations

Uses allowed in each zoning district are specified in Section 4.2. Designations in the Tables are as follows:

- A. Uses Permitted By Right: "Y" indicates that a use is allowed by right in the district. See also Section 4.6, Exempt Uses.
- B. Special Permit Uses: "SPP" indicates that a use is allowed only if approved by the Planning Board and "SPZ" indicates that a use is allowed only if approved by the Zoning Board of Appeals, all in accordance with the special permit review procedures of Section 7.2. All conditions listed in the applicable sub-section of Section 4.3 must be met for a special permit to be granted.
- C. Uses Not Permitted: "N" indicates that a use is not allowed in the district. See also Section 4.7, Prohibited Uses.

### 4.2 Use Table, Principal Uses

ZONING DISTRICTS		RR	SR	LR	VR	TC	C	I	Refer to Section
<b>A. Residential Uses</b>									
1	Single-family	Y	Y	Y	Y	N	N	N	
2	Two-family	SPP	SPP	N	Y	Y	N	N	4.3.1
3	Multi-Family	N	SPP	N	SPP	Y	N	N	4.3.2
4	Conversion of an existing Single-family Dwelling to a Two-family	N	SPZ		SPZ	Y	N	N	4.3.3
5	Single-family Attached	SPP	SPP	N	SPP	Y	N	N	4.3.2
6	Accessory Apartment	SPZ	SPZ	SPZ	SPZ	SPZ	N	N	4.8.1
7	Open Space Residential Development	Y	Y	N	Y	N	N	N	4.8.2
8	Mixed Uses in a Single Building	N	N	N	SPZ	Y	N	N	4.3.9
<b>B. Public &amp; Civic Uses</b>									
1	Cemetery	SPZ	SPZ	N	N	N	SPZ	N	





<i>E. Retail Business and Consumer Service</i>									
1	Small scale retail sales and service with no outside storage	N	N	N	SPZ	Y	Y	N	
2	Small scale retail sales and service with outside storage	N	N	N	N	SPZ	Y	N	
3	Large scale retail sales and service with no outside storage	N	N	N	N	SPP	Y	N	
<b>ZONING DISTRICTS</b>		<b>RR</b>	<b>SR</b>	<b>LR</b>	<b>VR</b>	<b>TC</b>	<b>C</b>	<b>I</b>	
<i>E. Retail Business and Consumer Service continued</i>									
4	Large scale retail sales and service with outside storage	N	N	N	N	N	Y	N	
5	Sales of flowers, garden supplies, or agricultural products partly or wholly outdoors, which are not associated with an agricultural use (item C1 above).	SPZ	SPZ	N	N	SPZ	Y	N	
6	Shopping Center	N	N	N	N	SPP	SPP	N	4.3.10
7	Flea market	N	SPZ	N	N	N	SPZ	N	
8	Eating establishment, high turnover	N	N	SPZ	N	Y	Y	N	4.3.11
9	Eating establishment, low turnover	SPZ	N	SPZ	SPZ	Y	Y	N	4.3.11
10	Eating establishment, drive in/drive thru	SPZ	N	N	N	Y	Y	N	4.3.11
11	Eating establishment, specializing in serving alcoholic beverages	N	N	N	N	SPZ	N	N	
12	Personal service business such as but not limited to barber shops, beauty shops, tanning salons, nail salons.	N	N	N	N	Y	Y	N	
13	Dry cleaning, shoe repair, tailoring, or other similar uses	N	N	N	N	SPZ	N	N	4.3.12
14	Veterinary establishment or pet grooming establishment	SPZ	N	N	N	SPZ	SPZ	N	4.3.13
15	Dog Kennel	SPZ	N	N	N	N	N	N	
16	Bed & Breakfast, Inn	SPZ	SPZ	SPZ	SPZ	Y	Y	N	4.3.14
17	Hotel, motel	N	N	N	SPZ	SPZ	SPZ	N	4.3.15
18	Camp	SPP	N	N	N	N	N	N	4.3.16
19	Private membership club or lodge	SPZ	SPZ	SPZ	SPZ	SPZ	N	N	4.3.17
20	Indoor swimming, tennis or other recreational facility	SPZ	N	N	N	N	SPZ	N	
21	Indoor entertainment and recreational facility, including but not limited to bowling alley, theatre, or sports arena	N	N	N	N	SP	SPZ	N	4.3.18
22	Outdoor sports facility for non-motorized sports such as a golf course, country club, tennis club	SPZ	SPZ	SPZ	N	N	SPZ	N	4.3.19

23	Mortuary, undertaking or funeral establishment.	SPZ	N	N	N	N	Y	N	
24	Tattoo parlor, body piercing studio	N	N	N	N	SPZ	SPZ	N	4.3.20
25	Adult oriented establishment	N	N	N	N	N	SPZ	N	4.3.21
26	Registered Marijuana Dispensary	N	N	N	N	N	Y	Y	4.8.8
<b>ZONING DISTRICTS</b>		<b>RR</b>	<b>SR</b>	<b>LR</b>	<b>VR</b>	<b>TC</b>	<b>C</b>	<b>I</b>	
<b><i>F. Automotive Service</i></b>									
1	Gasoline service station	N	N	N	N	N	Y	N	
2	Sale or rental of automobiles, boats and other motor vehicles	N	N	N	N	N	SPZ	N	4.3.22
3	Automobile repair shop, autobody shop	N	N	N	N	SPZ	SPZ	SPZ	4.3.23
4	Car washing establishment	N	N	N	N	N	SPZ	N	
<b><i>G. Industrial, Wholesale and Transportation Uses</i></b>									
1	Laundry and dry cleaning plant	N	N	N	N	N	N	Y	
2	Printing, binding, publishing and related arts and trades	N	N	N	N	SPZ	Y	Y	
3	Bottling of beverages	N	N	N	N	N	Y	Y	
4	Small engine repair, or other similar service or repair establishment	N	N	N	N	N	SPZ	Y	4.3.24
5	Construction trades	SPP	N	N	N	N	SPP	Y	4.3.25
6	Manufacturing, assembling or packaging of goods	N	N	N	N	SPZ	SPZ	SPZ	4.3.26
7	Wholesale business and storage in a roofed structure	N	N	N	N	N	Y	Y	
8	Recycling facility	N	N	N	N	N	N	SPZ	4.3.27
9	Processing of wood	SPZ	N	N	N	N	N	Y	4.3.28
10	Trucking terminal	N	N	N	N	N	N	Y	
11	Freight terminal	N	N	N	N	N	N	Y	
12	Automotive processing facility, for the service to and repair of automobiles for automotive manufacturers	N	N	N	N	N	N	SPZ	
13	Open lot storage or sale of junk or salvaged materials	N	N	N	N	N	N	SPZ	
14	Storage Warehouse Buildings	N	N	N	N	N	Y	Y	
<b><i>H. Other Principal Uses (Amended 10/29/2009 Article 9)</i></b>									
1	The stripping of loam, peat, sand or gravel or other material except for reuse on the same property	SPZ	N	N	N	N	SPZ	SPZ	4.8.6

2	Wind Monitoring or Meteorological Tower	Y	Y	Y	Y	Y	Y	Y	4.8.7
3	Small Scale Wind Energy Conversion Devices	Y/SPP	Y/SPP	Y/SPP	Y/SPP	Y/SPP	Y/SPP	Y/SPP	4.8.7
4	Large Scale Wind Energy Conversion Devices	SPP	SPP	SPP	SPP	SPP	SPP	SPP	4.8.7
5	Wireless Data Transfer Facilities	Y/SPZ	Y/SPZ	Y/SPZ	Y/SPZ	Y/SPZ	Y/SPZ	Y/SPZ	4.85

### Other required amended Articles:

#### 3.4 Overlay District

##### 3.4.1 Aquifer Protection District

- B. Scope of Authority. The Aquifer Protection District is an overlay district superimposed on the zoning districts. This overlay district shall apply to all new construction, reconstruction, or expansion of existing buildings and new or expanded uses. Applicable activities and uses in a portion of one of the underlying zoning districts that fall within the Aquifer Protection District must additionally comply with the requirements of the Aquifer Protection District regulations. Uses prohibited in the underlying zoning districts shall not be permitted in the Aquifer Protection District. All Special Permits required under this section shall be issued by the Zoning Board of Appeals except that the Planning Board shall issue them in cases where Site Plan Review and/or a Planning Board Special Permit in Section 4.2 Use Table, Principal Uses is required.

##### 3.4.2. Floodplain District

- H. Special Permits. No structure or building shall be erected, constructed, substantially improved, reconstructed (except as provided in Paragraph F above), or otherwise created or moved; no earth or other materials dumped, filled, excavated, or transferred, unless a special permit is granted. All Special Permits required under this section shall be issued by the Zoning Board of Appeals except that the Planning Board shall issue them in cases where Site Plan Review and/or a Planning Board Special Permit in Section 4.2 Use Table, Principal Uses is required. Said Board may issue a special permit hereunder (subject to other provisions of this bylaw) if the application is compliant with the following provisions:

#### 4.3 Performance Standards

##### 4.3.25 Construction trades (G-5)

- A. Are permitted in the RR district provided the parcel is a minimum of five acres in size, the building or outside area used for storage of equipment or materials is a minimum of 100 feet from any lot line and 300 feet from any existing dwelling, and the area between any



abutting property and the storage area is vegetated with either dense natural vegetation or landscaped to provide a dense buffer. A site plan in compliance with Section 7.4 shall be submitted along with the special permit application.

#### 4.4 Accessory Uses

4.4.1 *The following uses are permitted as indicated below as accessory uses to the primary use of the property.* In no case shall such uses exceed 40% of the property, determined by square footage of the structure in which it is located or square footage of the area of the parcel, whichever is the appropriate measure. All Special Permits required under this section shall be issued by the Zoning Board of Appeals except that the Planning Board shall issue them in cases where Site Plan Review and/or a Planning Board Special Permit in Section 4.2 Use Table, Principal Uses is required.

- B. A private garage may be located on an abutting legal non-conforming parcel, including a parcel in the same ownership which is directly across the street from the residence, upon the granting of a special permit. Setbacks required in Section 5.1 of this Zoning Bylaw shall be met to the greatest extent practicable. In determining what is practicable, consideration shall be given to a typical two car garage as the normal size, and conditions may be imposed relative to size restrictions on the proposed structure to minimize setback encroachments.

#### 4.5 Temporary Uses.

4.5.2 *Occupancy of an existing single-family dwelling during construction of a new single-family dwelling* on the same parcel is allowed by Special Permit issued by the Zoning Board of Appeals for a period to be determined based on a construction schedule to be submitted with the application. The special permit shall specify the timeframe within which the existing single-family dwelling shall be demolished.

4.5.3 *Placement and occupancy of a mobile home during reconstruction of an existing single-family dwelling* on the same parcel is allowed by Special Permit issued by the Zoning Board of Appeals for a period to be determined based on a construction schedule to be submitted with the application. The ZBA may authorize placement of the mobile home within the required setbacks if necessary.

#### 5.2 Interpretation notes for area. The following shall be used to interpret the table of area requirements:

5.2.6 *Detached Accessory Structures*, including garages, sheds, swimming pools, etc. (see Section 4.4.1.A), on residential lots shall have a 10 foot setback from the side or rear lot line, provided said structure is located within the rear yard (i.e. anywhere behind the house from one side property line to the other). Any future connection of an accessory structure to a primary structure that creates nonconformity with regard to setbacks may be allowed by Special Permit issued by the Zoning Board of Appeals.

#### 5.3 Specific provisions for area requirements:

All Special Permits required under this section shall be issued by the Zoning Board of Appeals except that the Planning Board shall issue them in cases where Site Plan Review and/or a Planning Board Special Permit in Section 4.2 Use Table, Principal Uses is required.

## 6.1 Off Street Parking & Loading Requirements

### 6.1.1 Number of Spaces

#### H. Table of Parking Requirements

1. The permitting authority is the Building Inspector/Zoning Enforcement Officer for projects only requiring a building permit or a business certificate. All Special Permits required under this section shall be issued by the Zoning Board of Appeals except that the Planning Board shall issue them in cases where Site Plan Review and/or a Planning Board Special Permit in Section 4.2 Use Table, Principal Uses is required.

## 6.5 Signage (All Special Permits required under this section shall be issued by the Zoning Board of Appeals except that the Planning Board shall issue them in cases where Site Plan Review and/or a Planning Board Special Permit in Section 4.2 Use Table, Principal Uses is required.)

### 6.5.5. Administration

- B. Relief from these regulations. Relief from the restrictions in Section 6.5.3 may be granted by Special Permit, provided the Sign Advisory Committee submits their written report prior to or at the public hearing on the application. Failure of the Committee to submit a written report shall constitute a recommendation for approval with no modifications to the proposed sign by the Committee.

## 7.2 Special Permits

### 7.2.1 Special Permit Granting Authority – (Reserved for future use)

## 7.4 Site Plan Review

7.4.3 Procedure. - Site Plan Review shall be administered by the Planning Board except, in cases where the project also requires a Special Permit, said Site Plan Approval shall be issued by the same Special Permit Granting Authority and shall be included as part of that Special Permit Application. In such cases the Site Plan Approval and Special Permit reviews and procedures shall be consolidated into a single process and any approval, findings and conditions for said Site Plan Approval shall be in addition to and incorporated as a part of the findings and conditions of the Special Permit.

E. (reserved for future use)

F. (reserved for future use)

- H. No deviation from an approved site plan shall be permitted without approval by the permitting authority.



**ATTACHMENT E  
PREVAILING WAGE RATES**



CHARLES D. BAKER  
Governor

KARYN E. POLITO  
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT  
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the  
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

ROSALIN ACOSTA  
Secretary  
WILLIAM D MCKINNEY  
Director

**Awarding Authority:** Town of Spencer  
**Contract Number:** 2017SOLAR **City/Town:** SPENCER  
**Description of Work:** Construct a Solar Array on the Town of Spencer Landfill  
**Job Location:** 17 S. Spencer Road, Spencer, MA

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Information about Prevailing Wage Schedules for Awarding Authorities and Contractors

- This wage schedule applies only to the specific project referenced at the top of this page and uniquely identified by the "Wage Request Number" on all pages of this schedule.
- An Awarding Authority must request an updated wage schedule from the Department of Labor Standards ("DLS") if it has not opened bids or selected a contractor within 90 days of the date of issuance of the wage schedule. For CM AT RISK projects (bid pursuant to G.L. c.149A), the earlier of: (a) the execution date of the GMP Amendment, or (b) the bid for the first construction scope of work must be within 90-days of the wage schedule issuance date.
- The wage schedule shall be incorporated in any advertisement or call for bids for the project as required by M.G.L. c. 149, § 27. The wage schedule shall be made a part of the contract awarded for the project. The wage schedule must be posted in a conspicuous place at the work site for the life of the project in accordance with M.G.L. c. 149 § 27. The wages listed on the wage schedule must be paid to employees performing construction work on the project whether they are employed by the prime contractor, a filed sub-bidder, or any sub-contractor.
- All apprentices working on the project are required to be registered with the Massachusetts Department of Labor Standards, Division of Apprentice Standards (DLS/DAS). Apprentice must keep his/her apprentice identification card on his/her person during all work hours on the project. An apprentice registered with DAS may be paid the lower apprentice wage rate at the applicable step as provided on the prevailing wage schedule. **Any apprentice not registered with DLS/DAS regardless of whether or not they are registered with any other federal, state, local, or private agency must be paid the journeyworker's rate for the trade.**
- The wage rates will remain in effect for the duration of the project, except in the case of multi-year public construction projects. For construction projects lasting longer than one year, awarding authorities must request an updated wage schedule. Awarding authorities are required to request these updates no later than two weeks before the anniversary of the date the contract was executed by the awarding authority and the general contractor. For multi-year CM AT RISK projects, awarding authority must request an annual update no later than two weeks before the anniversary date, determined as the earlier of: (a) the execution date of the GMP Amendment, or (b) the execution date of the first amendment to permit procurement of construction services. Contractors are required to obtain the wage schedules from awarding authorities, and to pay no less than these rates to covered workers. The annual update requirement is not applicable to 27F "rental of equipment" contracts.
- Every contractor or subcontractor which performs construction work on the project is required to submit weekly payroll reports and a Statement of Compliance directly to the awarding authority by mail or email and keep them on file for three years. Each weekly payroll report must contain: the employee's name, address, occupational classification, hours worked, and wages paid. Do not submit weekly payroll reports to DLS. A sample of a payroll reporting form may be obtained at <http://www.mass.gov/dols/pw>.
- Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at (617) 626-6953.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may report the violation to the Fair Labor Division of the office of the Attorney General at (617) 727-3465.
- Failure of a contractor or subcontractor to pay the prevailing wage rates listed on the wage schedule to all employees who perform construction work on the project is a violation of the law and subjects the contractor or subcontractor to civil and



Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
<b>Construction</b>						
(2 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2016	\$32.15	\$10.91	\$10.89	\$0.00	\$53.95
(3 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2016	\$32.22	\$10.91	\$10.89	\$0.00	\$54.02
(4 & 5 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2016	\$32.34	\$10.91	\$10.89	\$0.00	\$54.14
ADS/SUBMERSIBLE PILOT <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2015	\$90.51	\$9.80	\$18.17	\$0.00	\$118.48
For apprentice rates see "Apprentice- PILE DRIVER"						
AIR TRACK OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2017	\$33.15	\$7.60	\$13.50	\$0.00	\$54.25
	12/01/2017	\$33.78	\$7.60	\$13.50	\$0.00	\$54.88
	06/01/2018	\$34.62	\$7.60	\$13.50	\$0.00	\$55.72
	12/01/2018	\$35.46	\$7.60	\$13.50	\$0.00	\$56.56
	06/01/2019	\$36.33	\$7.60	\$13.50	\$0.00	\$57.43
	12/01/2019	\$37.19	\$7.60	\$13.50	\$0.00	\$58.29
For apprentice rates see "Apprentice- LABORER"						
ASBESTOS WORKER (PIPES & TANKS) <i>HEAT &amp; FROST INSULATORS LOCAL 6 (WORCESTER)</i>	06/01/2017	\$34.90	\$11.50	\$7.10	\$0.00	\$53.50
	12/01/2017	\$35.90	\$11.50	\$7.10	\$0.00	\$54.50
	06/01/2018	\$36.90	\$11.50	\$7.10	\$0.00	\$55.50
	12/01/2018	\$37.90	\$11.50	\$7.10	\$0.00	\$56.50
	06/01/2019	\$38.90	\$11.50	\$7.10	\$0.00	\$57.50
	12/01/2019	\$39.90	\$11.50	\$7.10	\$0.00	\$58.50
	06/01/2020	\$40.90	\$11.50	\$7.10	\$0.00	\$59.50
	12/01/2020	\$41.90	\$11.50	\$7.10	\$0.00	\$60.50
ASPHALT RAKER <i>LABORERS - ZONE 2</i>	06/01/2017	\$32.65	\$7.60	\$13.50	\$0.00	\$53.75
	12/01/2017	\$33.28	\$7.60	\$13.50	\$0.00	\$54.38
	06/01/2018	\$34.12	\$7.60	\$13.50	\$0.00	\$55.22
	12/01/2018	\$34.96	\$7.60	\$13.50	\$0.00	\$56.06
	06/01/2019	\$35.83	\$7.60	\$13.50	\$0.00	\$56.93
	12/01/2019	\$36.69	\$7.60	\$13.50	\$0.00	\$57.79
For apprentice rates see "Apprentice- LABORER"						
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2017	\$46.38	\$10.00	\$15.25	\$0.00	\$71.63
	12/01/2017	\$47.38	\$10.00	\$15.25	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BACKHOE/FRONT-END LOADER <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2017	\$46.38	\$10.00	\$15.25	\$0.00	\$71.63
	12/01/2017	\$47.38	\$10.00	\$15.25	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BARCO-TYPE JUMPING TAMPER <i>LABORERS - ZONE 2</i>	06/01/2017	\$32.65	\$7.60	\$13.50	\$0.00	\$53.75
	12/01/2017	\$33.28	\$7.60	\$13.50	\$0.00	\$54.38
	06/01/2018	\$34.12	\$7.60	\$13.50	\$0.00	\$55.22
	12/01/2018	\$34.96	\$7.60	\$13.50	\$0.00	\$56.06
	06/01/2019	\$35.83	\$7.60	\$13.50	\$0.00	\$56.93
	12/01/2019	\$36.69	\$7.60	\$13.50	\$0.00	\$57.79
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
BLOCK PAVER, RAMMER / CURB SETTER <i>LABORERS - ZONE 2</i>	06/01/2017	\$33.15	\$7.60	\$13.50	\$0.00	\$54.25
	12/01/2017	\$33.78	\$7.60	\$13.50	\$0.00	\$54.88
	06/01/2018	\$34.62	\$7.60	\$13.50	\$0.00	\$55.72
	12/01/2018	\$35.46	\$7.60	\$13.50	\$0.00	\$56.56
	06/01/2019	\$36.33	\$7.60	\$13.50	\$0.00	\$57.43
	12/01/2019	\$37.19	\$7.60	\$13.50	\$0.00	\$58.29

For apprentice rates see "Apprentice- LABORER"

BOILER MAKER <i>BOILERMAKERS LOCAL 29</i>	01/01/2017	\$42.92	\$6.97	\$16.21	\$0.00	\$66.10
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**Apprentice - BOILERMAKER - Local 29**

**Effective Date -** 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	\$27.90	\$6.97	\$10.54	\$0.00	\$45.41
2	65	\$27.90	\$6.97	\$10.54	\$0.00	\$45.41
3	70	\$30.04	\$6.97	\$11.35	\$0.00	\$48.36
4	75	\$32.19	\$6.97	\$12.16	\$0.00	\$51.32
5	80	\$34.34	\$6.97	\$12.97	\$0.00	\$54.28
6	85	\$36.48	\$6.97	\$13.78	\$0.00	\$57.23
7	90	\$38.63	\$6.97	\$14.59	\$0.00	\$60.19
8	95	\$40.77	\$6.97	\$15.40	\$0.00	\$63.14

**Notes:**

**Apprentice to Journeyworker Ratio:1:5**

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING) <i>BRICKLAYERS LOCAL 3 (WORCESTER)</i>	03/01/2017	\$48.66	\$10.75	\$18.62	\$0.00	\$78.03
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**Apprentice - BRICK/PLASTER/CEMENT MASON - Local 3 Worcester**

**Effective Date -** 03/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.33	\$10.75	\$18.62	\$0.00	\$53.70
2	60	\$29.20	\$10.75	\$18.62	\$0.00	\$58.57
3	70	\$34.06	\$10.75	\$18.62	\$0.00	\$63.43
4	80	\$38.93	\$10.75	\$18.62	\$0.00	\$68.30
5	90	\$43.79	\$10.75	\$18.62	\$0.00	\$73.16

**Notes:**

**Apprentice to Journeyworker Ratio:1:5**

BULLDOZER/GRADER/SCRAPER <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2017	\$45.93	\$10.00	\$15.25	\$0.00	\$71.18
	12/01/2017	\$46.92	\$10.00	\$15.25	\$0.00	\$72.17

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CAISSON & UNDERPINNING BOTTOM MAN <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2016	\$37.45	\$7.60	\$14.35	\$0.00	\$59.40
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2016	\$36.30	\$7.60	\$14.35	\$0.00	\$58.25
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING TOP MAN <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2016	\$36.30	\$7.60	\$14.35	\$0.00	\$58.25
For apprentice rates see "Apprentice- LABORER"						
CARBIDE CORE DRILL OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2017	\$32.65	\$7.60	\$13.50	\$0.00	\$53.75
	12/01/2017	\$33.28	\$7.60	\$13.50	\$0.00	\$54.38
	06/01/2018	\$34.12	\$7.60	\$13.50	\$0.00	\$55.22
	12/01/2018	\$34.96	\$7.60	\$13.50	\$0.00	\$56.06
	06/01/2019	\$35.83	\$7.60	\$13.50	\$0.00	\$56.93
	12/01/2019	\$36.69	\$7.60	\$13.50	\$0.00	\$57.79
For apprentice rates see "Apprentice- LABORER"						
CARPENTER <i>CARPENTERS -ZONE 2 (Eastern Massachusetts)</i>	03/01/2017	\$38.77	\$9.90	\$17.00	\$0.00	\$65.67
	09/01/2017	\$39.78	\$9.90	\$17.00	\$0.00	\$66.68
	03/01/2018	\$40.78	\$9.90	\$17.00	\$0.00	\$67.68
	09/01/2018	\$41.82	\$9.90	\$17.00	\$0.00	\$68.72
	03/01/2019	\$42.85	\$9.90	\$17.00	\$0.00	\$69.75

**Classification**

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

**Apprentice - CARPENTER - Zone 2 Eastern MA**
**Effective Date - 03/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.39	\$9.90	\$1.63	\$0.00	\$30.92
2	60	\$23.26	\$9.90	\$1.63	\$0.00	\$34.79
3	70	\$27.14	\$9.90	\$12.11	\$0.00	\$49.15
4	75	\$29.08	\$9.90	\$12.11	\$0.00	\$51.09
5	80	\$31.02	\$9.90	\$13.74	\$0.00	\$54.66
6	80	\$31.02	\$9.90	\$13.74	\$0.00	\$54.66
7	90	\$34.89	\$9.90	\$15.37	\$0.00	\$60.16
8	90	\$34.89	\$9.90	\$15.37	\$0.00	\$60.16

**Effective Date - 09/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.89	\$9.90	\$1.63	\$0.00	\$31.42
2	60	\$23.87	\$9.90	\$1.63	\$0.00	\$35.40
3	70	\$27.85	\$9.90	\$12.11	\$0.00	\$49.86
4	75	\$29.84	\$9.90	\$12.11	\$0.00	\$51.85
5	80	\$31.82	\$9.90	\$13.74	\$0.00	\$55.46
6	80	\$31.82	\$9.90	\$13.74	\$0.00	\$55.46
7	90	\$35.80	\$9.90	\$15.37	\$0.00	\$61.07
8	90	\$35.80	\$9.90	\$15.37	\$0.00	\$61.07

**Notes:**
**Apprentice to Journeyworker Ratio:1:5**

CEMENT MASONRY/PLASTERING	07/01/2017	\$44.39	\$12.20	\$19.41	\$1.30	\$77.30
BRICKLAYERS LOCAL 3 (WORCESTER)	01/01/2018	\$44.58	\$12.20	\$19.41	\$1.30	\$77.49
	07/01/2018	\$44.77	\$12.20	\$19.41	\$1.30	\$77.68
	01/01/2019	\$44.97	\$12.20	\$19.41	\$1.30	\$77.88
	07/01/2019	\$45.16	\$12.20	\$19.41	\$1.30	\$78.07
	01/01/2020	\$46.05	\$12.20	\$19.41	\$1.30	\$78.96



**Apprentice - CEMENT MASONRY/PLASTERING - Worcester**

**Effective Date - 07/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.20	\$12.20	\$12.41	\$0.00	\$46.81
2	60	\$26.63	\$12.20	\$14.41	\$1.30	\$54.54
3	65	\$28.85	\$12.20	\$15.41	\$1.30	\$57.76
4	70	\$31.07	\$12.20	\$16.41	\$1.30	\$60.98
5	75	\$33.29	\$12.20	\$17.41	\$1.30	\$64.20
6	80	\$35.51	\$12.20	\$18.41	\$1.30	\$67.42
7	90	\$39.95	\$12.20	\$19.41	\$1.30	\$72.86

**Effective Date - 01/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.29	\$12.20	\$12.41	\$0.00	\$46.90
2	60	\$26.75	\$12.20	\$14.41	\$1.30	\$54.66
3	65	\$28.98	\$12.20	\$15.41	\$1.30	\$57.89
4	70	\$31.21	\$12.20	\$16.41	\$1.30	\$61.12
5	75	\$33.44	\$12.20	\$17.41	\$1.30	\$64.35
6	80	\$35.66	\$12.20	\$18.41	\$1.30	\$67.57
7	90	\$40.12	\$12.20	\$19.41	\$1.30	\$73.03

**Notes:**

Steps 3,4 are 500 hrs. All other steps are 1,000 hrs.

**Apprentice to Journeyworker Ratio:1:3**

CHAIN SAW OPERATOR	06/01/2017	\$32.65	\$7.60	\$13.50	\$0.00	\$53.75
LABORERS - ZONE 2	12/01/2017	\$33.28	\$7.60	\$13.50	\$0.00	\$54.38
	06/01/2018	\$34.12	\$7.60	\$13.50	\$0.00	\$55.22
	12/01/2018	\$34.96	\$7.60	\$13.50	\$0.00	\$56.06
	06/01/2019	\$35.83	\$7.60	\$13.50	\$0.00	\$56.93
	12/01/2019	\$36.69	\$7.60	\$13.50	\$0.00	\$57.79
For apprentice rates see "Apprentice- LABORER"						
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES	06/01/2017	\$47.38	\$10.00	\$15.25	\$0.00	\$72.63
OPERATING ENGINEERS LOCAL 4	12/01/2017	\$48.38	\$10.00	\$15.25	\$0.00	\$73.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
COMPRESSOR OPERATOR	06/01/2017	\$31.86	\$10.00	\$15.25	\$0.00	\$57.11
OPERATING ENGINEERS LOCAL 4	12/01/2017	\$32.55	\$10.00	\$15.25	\$0.00	\$57.80
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DELEADER (BRIDGE)	01/01/2017	\$51.41	\$7.85	\$16.10	\$0.00	\$75.36
PAINTERS LOCAL 35 - ZONE 2						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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**Apprentice - PAINTER Local 35 - BRIDGES/TANKS**

**Effective Date - 01/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.71	\$7.85	\$0.00	\$0.00	\$33.56
2	55	\$28.28	\$7.85	\$3.66	\$0.00	\$39.79
3	60	\$30.85	\$7.85	\$3.99	\$0.00	\$42.69
4	65	\$33.42	\$7.85	\$4.32	\$0.00	\$45.59
5	70	\$35.99	\$7.85	\$14.11	\$0.00	\$57.95
6	75	\$38.56	\$7.85	\$14.44	\$0.00	\$60.85
7	80	\$41.13	\$7.85	\$14.77	\$0.00	\$63.75
8	90	\$46.27	\$7.85	\$15.44	\$0.00	\$69.56

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

DEMO: ADZEMAN LABORERS - ZONE 2	06/01/2017	\$37.00	\$7.60	\$14.65	\$0.00	\$59.25
	12/01/2017	\$37.85	\$7.60	\$14.65	\$0.00	\$60.10
	06/01/2018	\$38.80	\$7.60	\$14.65	\$0.00	\$61.05
	12/01/2018	\$39.75	\$7.60	\$14.65	\$0.00	\$62.00
	06/01/2019	\$40.75	\$7.60	\$14.65	\$0.00	\$63.00
	12/01/2019	\$41.75	\$7.60	\$14.65	\$0.00	\$64.00
For apprentice rates see "Apprentice- LABORER"						
DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS - ZONE 2	06/01/2017	\$38.00	\$7.60	\$14.65	\$0.00	\$60.25
	12/01/2017	\$38.85	\$7.60	\$14.65	\$0.00	\$61.10
	06/01/2018	\$39.80	\$7.60	\$14.65	\$0.00	\$62.05
	12/01/2018	\$40.75	\$7.60	\$14.65	\$0.00	\$63.00
	06/01/2019	\$41.75	\$7.60	\$14.65	\$0.00	\$64.00
	12/01/2019	\$42.75	\$7.60	\$14.65	\$0.00	\$65.00
For apprentice rates see "Apprentice- LABORER"						
DEMO: BURNERS LABORERS - ZONE 2	06/01/2017	\$37.75	\$7.60	\$14.65	\$0.00	\$60.00
	12/01/2017	\$38.60	\$7.60	\$14.65	\$0.00	\$60.85
	06/01/2018	\$39.55	\$7.60	\$14.65	\$0.00	\$61.80
	12/01/2018	\$40.50	\$7.60	\$14.65	\$0.00	\$62.75
	06/01/2019	\$41.50	\$7.60	\$14.65	\$0.00	\$63.75
	12/01/2019	\$42.50	\$7.60	\$14.65	\$0.00	\$64.75
For apprentice rates see "Apprentice- LABORER"						
DEMO: CONCRETE CUTTER/SAWYER LABORERS - ZONE 2	06/01/2017	\$38.00	\$7.60	\$14.65	\$0.00	\$60.25
	12/01/2017	\$38.85	\$7.60	\$14.65	\$0.00	\$61.10
	06/01/2018	\$39.80	\$7.60	\$14.65	\$0.00	\$62.05
	12/01/2018	\$40.75	\$7.60	\$14.65	\$0.00	\$63.00
	06/01/2019	\$41.75	\$7.60	\$14.65	\$0.00	\$64.00
	12/01/2019	\$42.75	\$7.60	\$14.65	\$0.00	\$65.00
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
DEMO: JACKHAMMER OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2017	\$37.75	\$7.60	\$14.65	\$0.00	\$60.00
	12/01/2017	\$38.60	\$7.60	\$14.65	\$0.00	\$60.85
	06/01/2018	\$39.55	\$7.60	\$14.65	\$0.00	\$61.80
	12/01/2018	\$40.50	\$7.60	\$14.65	\$0.00	\$62.75
	06/01/2019	\$41.50	\$7.60	\$14.65	\$0.00	\$63.75
	12/01/2019	\$42.50	\$7.60	\$14.65	\$0.00	\$64.75
For apprentice rates see "Apprentice- LABORER"						
DEMO: WRECKING LABORER <i>LABORERS - ZONE 2</i>	06/01/2017	\$37.00	\$7.60	\$14.65	\$0.00	\$59.25
	12/01/2017	\$37.85	\$7.60	\$14.65	\$0.00	\$60.10
	06/01/2018	\$38.80	\$7.60	\$14.65	\$0.00	\$61.05
	12/01/2018	\$39.75	\$7.60	\$14.65	\$0.00	\$62.00
	06/01/2019	\$40.75	\$7.60	\$14.65	\$0.00	\$63.00
	12/01/2019	\$41.75	\$7.60	\$14.65	\$0.00	\$64.00
For apprentice rates see "Apprentice- LABORER"						
DIRECTIONAL DRILL MACHINE OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2017	\$45.93	\$10.00	\$15.25	\$0.00	\$71.18
	12/01/2017	\$46.92	\$10.00	\$15.25	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DIVER <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2015	\$60.34	\$9.80	\$18.17	\$0.00	\$88.31
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2015	\$43.10	\$9.80	\$18.17	\$0.00	\$71.07
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2015	\$64.65	\$9.80	\$18.17	\$0.00	\$92.62
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER/SLURRY (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2015	\$90.51	\$9.80	\$18.17	\$0.00	\$118.48
For apprentice rates see "Apprentice- PILE DRIVER"						
ELECTRICIAN <i>ELECTRICIANS LOCAL 96</i>	06/01/2017	\$41.97	\$9.43	\$14.55	\$0.00	\$65.95
	12/01/2017	\$42.32	\$9.57	\$14.60	\$0.00	\$66.49
	06/01/2018	\$43.27	\$9.82	\$14.98	\$0.00	\$68.07
	12/01/2018	\$43.52	\$10.07	\$15.02	\$0.00	\$68.61
	06/01/2019	\$45.52	\$10.07	\$15.30	\$0.00	\$70.89

**Classification**
**Effective Date**
**Base Wage**
**Health**
**Pension**
**Supplemental  
Unemployment**
**Total Rate**
**Apprentice - ELECTRICIAN - Local 96**
**Effective Date - 06/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$16.79	\$9.43	\$0.50	\$0.00	\$26.72
2	43	\$18.05	\$9.43	\$0.54	\$0.00	\$28.02
3	48	\$20.15	\$9.43	\$11.49	\$0.00	\$41.07
4	55	\$23.08	\$9.43	\$11.90	\$0.00	\$44.41
5	65	\$27.28	\$9.43	\$12.49	\$0.00	\$49.20
6	80	\$33.58	\$9.43	\$13.37	\$0.00	\$56.38

**Effective Date - 12/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$16.93	\$9.57	\$0.51	\$0.00	\$27.01
2	43	\$18.20	\$9.57	\$0.55	\$0.00	\$28.32
3	48	\$20.31	\$9.57	\$11.52	\$0.00	\$41.40
4	55	\$23.28	\$9.57	\$11.93	\$0.00	\$44.78
5	65	\$27.51	\$9.57	\$12.53	\$0.00	\$49.61
6	80	\$33.86	\$9.57	\$13.42	\$0.00	\$56.85

**Notes:**

Steps 1-2 are 1000 hrs; Steps 3-6 are 1500 hrs.

**Apprentice to Journeyworker Ratio:2:3\*\*\***

ELEVATOR CONSTRUCTOR  
ELEVATOR CONSTRUCTORS LOCAL 41

01/01/2017

\$49.90

\$15.28

\$15.71

\$0.00

\$80.89

**Apprentice - ELEVATOR CONSTRUCTOR - Local 41**
**Effective Date - 01/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.95	\$15.28	\$15.71	\$0.00	\$55.94
2	55	\$27.45	\$15.28	\$15.71	\$0.00	\$58.44
3	65	\$32.44	\$15.28	\$15.71	\$0.00	\$63.43
4	70	\$34.93	\$15.28	\$15.71	\$0.00	\$65.92
5	80	\$39.92	\$15.28	\$15.71	\$0.00	\$70.91

**Notes:**

Steps 1-2 are 6 mos.; Steps 3-5 are 1 year

**Apprentice to Journeyworker Ratio:1:1**

ELEVATOR CONSTRUCTOR HELPER  
ELEVATOR CONSTRUCTORS LOCAL 41

01/01/2017

\$34.93

\$15.28

\$15.71

\$0.00

\$65.92

For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"



Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
FENCE & GUARD RAIL ERECTOR <i>LABORERS - ZONE 2</i>	06/01/2017	\$32.65	\$7.60	\$13.50	\$0.00	\$53.75
	12/01/2017	\$33.28	\$7.60	\$13.50	\$0.00	\$54.38
	06/01/2018	\$34.12	\$7.60	\$13.50	\$0.00	\$55.22
	12/01/2018	\$34.96	\$7.60	\$13.50	\$0.00	\$56.06
	06/01/2019	\$35.83	\$7.60	\$13.50	\$0.00	\$56.93
	12/01/2019	\$36.69	\$7.60	\$13.50	\$0.00	\$57.79
For apprentice rates see "Apprentice- LABORER"						
FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2017	\$42.15	\$10.00	\$15.25	\$0.00	\$67.40
	11/01/2017	\$42.88	\$10.00	\$15.25	\$0.00	\$68.13
	05/01/2018	\$43.59	\$10.00	\$15.25	\$0.00	\$68.84
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2017	\$43.61	\$10.00	\$15.25	\$0.00	\$68.86
	11/01/2017	\$44.34	\$10.00	\$15.25	\$0.00	\$69.59
	05/01/2018	\$45.06	\$10.00	\$15.25	\$0.00	\$70.31
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2017	\$22.41	\$10.00	\$15.25	\$0.00	\$47.66
	11/01/2017	\$22.83	\$10.00	\$15.25	\$0.00	\$48.08
	05/01/2018	\$23.26	\$10.00	\$15.25	\$0.00	\$48.51
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIRE ALARM INSTALLER <i>ELECTRICIANS LOCAL 96</i>	06/01/2017	\$41.97	\$9.43	\$14.55	\$0.00	\$65.95
	12/01/2017	\$42.32	\$9.57	\$14.60	\$0.00	\$66.49
	06/01/2018	\$43.27	\$9.82	\$14.98	\$0.00	\$68.07
	12/01/2018	\$43.52	\$10.07	\$15.02	\$0.00	\$68.61
	06/01/2019	\$45.52	\$10.07	\$15.30	\$0.00	\$70.89
For apprentice rates see "Apprentice- ELECTRICIAN"						
FIRE ALARM REPAIR / MAINT/COMMISSIONING <i>ELECTRICIANS LOCAL 96</i>	06/01/2017	\$41.97	\$9.43	\$14.55	\$0.00	\$65.95
	12/01/2017	\$42.32	\$9.57	\$14.60	\$0.00	\$66.49
	06/01/2018	\$43.27	\$9.82	\$14.98	\$0.00	\$68.07
	12/01/2018	\$43.52	\$10.07	\$15.02	\$0.00	\$68.61
	06/01/2019	\$45.52	\$10.07	\$15.30	\$0.00	\$70.89
For apprentice rates see "Apprentice- ELECTRICIAN"						
FIREMAN (ASST. ENGINEER) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2017	\$38.49	\$10.00	\$15.25	\$0.00	\$63.74
	12/01/2017	\$39.32	\$10.00	\$15.25	\$0.00	\$64.57
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FLAGGER & SIGNALER <i>LABORERS - ZONE 2</i>	06/01/2017	\$20.50	\$7.60	\$13.50	\$0.00	\$41.60
	12/01/2017	\$21.50	\$7.60	\$13.50	\$0.00	\$42.60
	06/01/2018	\$21.50	\$7.60	\$13.50	\$0.00	\$42.60
	12/01/2018	\$22.50	\$7.60	\$13.50	\$0.00	\$43.60
	06/01/2019	\$22.50	\$7.60	\$13.50	\$0.00	\$43.60
	12/01/2019	\$23.50	\$7.60	\$13.50	\$0.00	\$44.60
For apprentice rates see "Apprentice- LABORER"						
FLOORCOVERER <i>FLOORCOVERERS LOCAL 2168 ZONE II</i>	03/01/2016	\$39.82	\$9.80	\$17.62	\$0.00	\$67.24

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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**Apprentice - FLOORCOVERER - Local 2168 Zone II**

**Effective Date -** 03/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.91	\$9.80	\$1.79	\$0.00	\$31.50
2	55	\$21.90	\$9.80	\$1.79	\$0.00	\$33.49
3	60	\$23.89	\$9.80	\$12.25	\$0.00	\$45.94
4	65	\$25.88	\$9.80	\$12.25	\$0.00	\$47.93
5	70	\$27.87	\$9.80	\$14.04	\$0.00	\$51.71
6	75	\$29.87	\$9.80	\$14.04	\$0.00	\$53.71
7	80	\$31.86	\$9.80	\$15.83	\$0.00	\$57.49
8	85	\$33.85	\$9.80	\$15.83	\$0.00	\$59.48

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

FORK LIFT/CHERRY PICKER	06/01/2017	\$46.38	\$10.00	\$15.25	\$0.00	\$71.63
OPERATING ENGINEERS LOCAL 4	12/01/2017	\$47.38	\$10.00	\$15.25	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
GENERATOR/LIGHTING PLANT/HEATERS	06/01/2017	\$31.86	\$10.00	\$15.25	\$0.00	\$57.11
OPERATING ENGINEERS LOCAL 4	12/01/2017	\$32.55	\$10.00	\$15.25	\$0.00	\$57.80
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)	01/01/2017	\$40.91	\$7.85	\$16.10	\$0.00	\$64.86
GLAZIERS LOCAL 35 (ZONE 2)						

**Apprentice - GLAZIER - Local 35 Zone 2**

**Effective Date -** 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.46	\$7.85	\$0.00	\$0.00	\$28.31
2	55	\$22.50	\$7.85	\$3.66	\$0.00	\$34.01
3	60	\$24.55	\$7.85	\$3.99	\$0.00	\$36.39
4	65	\$26.59	\$7.85	\$4.32	\$0.00	\$38.76
5	70	\$28.64	\$7.85	\$14.11	\$0.00	\$50.60
6	75	\$30.68	\$7.85	\$14.44	\$0.00	\$52.97
7	80	\$32.73	\$7.85	\$14.77	\$0.00	\$55.35
8	90	\$36.82	\$7.85	\$15.44	\$0.00	\$60.11

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

HOISTING ENGINEER/CRANES/GRADALLS	06/01/2017	\$46.38	\$10.00	\$15.25	\$0.00	\$71.63
OPERATING ENGINEERS LOCAL 4	12/01/2017	\$47.38	\$10.00	\$15.25	\$0.00	\$72.63

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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**Apprentice - OPERATING ENGINEERS - Local 4**

**Effective Date - 06/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$25.51	\$10.00	\$0.00	\$0.00	\$35.51
2	60	\$27.83	\$10.00	\$15.25	\$0.00	\$53.08
3	65	\$30.15	\$10.00	\$15.25	\$0.00	\$55.40
4	70	\$32.47	\$10.00	\$15.25	\$0.00	\$57.72
5	75	\$34.79	\$10.00	\$15.25	\$0.00	\$60.04
6	80	\$37.10	\$10.00	\$15.25	\$0.00	\$62.35
7	85	\$39.42	\$10.00	\$15.25	\$0.00	\$64.67
8	90	\$41.74	\$10.00	\$15.25	\$0.00	\$66.99

**Effective Date - 12/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$26.06	\$10.00	\$0.00	\$0.00	\$36.06
2	60	\$28.43	\$10.00	\$15.25	\$0.00	\$53.68
3	65	\$30.80	\$10.00	\$15.25	\$0.00	\$56.05
4	70	\$33.17	\$10.00	\$15.25	\$0.00	\$58.42
5	75	\$35.54	\$10.00	\$15.25	\$0.00	\$60.79
6	80	\$37.90	\$10.00	\$15.25	\$0.00	\$63.15
7	85	\$40.27	\$10.00	\$15.25	\$0.00	\$65.52
8	90	\$42.64	\$10.00	\$15.25	\$0.00	\$67.89

**Notes:**

**Apprentice to Journeyworker Ratio:1:6**

HVAC (DUCTWORK) <i>SHEETMETAL WORKERS LOCAL 63</i>	01/01/2017	\$32.24	\$10.64	\$15.49	\$1.75	\$60.12
For apprentice rates see "Apprentice- SHEET METAL WORKER"						
HVAC (ELECTRICAL CONTROLS) <i>ELECTRICIANS LOCAL 96</i>	06/01/2017	\$41.97	\$9.43	\$14.55	\$0.00	\$65.95
	12/01/2017	\$42.32	\$9.57	\$14.60	\$0.00	\$66.49
	06/01/2018	\$43.27	\$9.82	\$14.98	\$0.00	\$68.07
	12/01/2018	\$43.52	\$10.07	\$15.02	\$0.00	\$68.61
	06/01/2019	\$45.52	\$10.07	\$15.30	\$0.00	\$70.89
For apprentice rates see "Apprentice- ELECTRICIAN"						
HVAC (TESTING AND BALANCING - AIR) <i>SHEETMETAL WORKERS LOCAL 63</i>	01/01/2017	\$32.24	\$10.64	\$15.49	\$1.75	\$60.12
For apprentice rates see "Apprentice- SHEET METAL WORKER"						
HVAC (TESTING AND BALANCING -WATER) <i>PLUMBERS LOCAL 4</i>	03/01/2017	\$42.81	\$9.35	\$14.81	\$0.00	\$66.97
	09/01/2017	\$43.41	\$9.35	\$14.81	\$0.00	\$67.57
	03/01/2018	\$44.06	\$9.35	\$14.81	\$0.00	\$68.22
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HVAC MECHANIC <i>PLUMBERS LOCAL 4</i>	03/01/2017	\$42.81	\$9.35	\$14.81	\$0.00	\$66.97
	09/01/2017	\$43.41	\$9.35	\$14.81	\$0.00	\$67.57
	03/01/2018	\$44.06	\$9.35	\$14.81	\$0.00	\$68.22

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HYDRAULIC DRILLS <i>LABORERS - ZONE 2</i>	06/01/2017	\$33.15	\$7.60	\$13.50	\$0.00	\$54.25
	12/01/2017	\$33.78	\$7.60	\$13.50	\$0.00	\$54.88
	06/01/2018	\$34.62	\$7.60	\$13.50	\$0.00	\$55.72
	12/01/2018	\$35.46	\$7.60	\$13.50	\$0.00	\$56.56
	06/01/2019	\$36.33	\$7.60	\$13.50	\$0.00	\$57.43
	12/01/2019	\$37.19	\$7.60	\$13.50	\$0.00	\$58.29
For apprentice rates see "Apprentice- LABORER"						
INSULATOR (PIPES & TANKS) <i>HEAT &amp; FROST INSULATORS LOCAL 6 (WORCESTER)</i>	09/01/2016	\$40.58	\$11.75	\$14.20	\$0.00	\$66.53
	09/01/2017	\$42.38	\$11.75	\$14.20	\$0.00	\$68.33
	09/01/2018	\$44.40	\$11.75	\$14.20	\$0.00	\$70.35
	09/01/2019	\$46.65	\$11.75	\$14.20	\$0.00	\$72.60

**Apprentice - ASBESTOS INSULATOR (Pipes & Tanks) - Local 6 Worcester**

**Effective Date -** 09/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.29	\$11.75	\$10.45	\$0.00	\$42.49
2	60	\$24.35	\$11.75	\$11.20	\$0.00	\$47.30
3	70	\$28.41	\$11.75	\$11.95	\$0.00	\$52.11
4	80	\$32.46	\$11.75	\$12.70	\$0.00	\$56.91

**Effective Date -** 09/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.19	\$11.75	\$10.45	\$0.00	\$43.39
2	60	\$25.43	\$11.75	\$11.20	\$0.00	\$48.38
3	70	\$29.67	\$11.75	\$11.95	\$0.00	\$53.37
4	80	\$33.90	\$11.75	\$12.70	\$0.00	\$58.35

**Notes:**

Steps are 1 year

**Apprentice to Journeyworker Ratio:1:4**

IRONWORKER/WELDER <i>IRONWORKERS LOCAL 7 (WORCESTER AREA)</i>	03/16/2017	\$44.35	\$7.80	\$20.85	\$0.00	\$73.00
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**Apprentice - IRONWORKER - Local 7 Worcester**

**Effective Date -** 03/16/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$26.61	\$7.80	\$20.85	\$0.00	\$55.26
2	70	\$31.05	\$7.80	\$20.85	\$0.00	\$59.70
3	75	\$33.26	\$7.80	\$20.85	\$0.00	\$61.91
4	80	\$35.48	\$7.80	\$20.85	\$0.00	\$64.13
5	85	\$37.70	\$7.80	\$20.85	\$0.00	\$66.35
6	90	\$39.92	\$7.80	\$20.85	\$0.00	\$68.57

**Notes:**

Structural 1:6; Ornamental 1:4

**Apprentice to Journeyworker Ratio:**

JACKHAMMER & PAVING BREAKER OPERATOR	06/01/2017	\$32.65	\$7.60	\$13.50	\$0.00	\$53.75
LABORERS - ZONE 2	12/01/2017	\$33.28	\$7.60	\$13.50	\$0.00	\$54.38
	06/01/2018	\$34.12	\$7.60	\$13.50	\$0.00	\$55.22
	12/01/2018	\$34.96	\$7.60	\$13.50	\$0.00	\$56.06
	06/01/2019	\$35.83	\$7.60	\$13.50	\$0.00	\$56.93
	12/01/2019	\$36.69	\$7.60	\$13.50	\$0.00	\$57.79

For apprentice rates see "Apprentice- LABORER"

LABORER	06/01/2017	\$32.40	\$7.60	\$13.50	\$0.00	\$53.50
LABORERS - ZONE 2	12/01/2017	\$33.03	\$7.60	\$13.50	\$0.00	\$54.13
	06/01/2018	\$33.87	\$7.60	\$13.50	\$0.00	\$54.97
	12/01/2018	\$34.71	\$7.60	\$13.50	\$0.00	\$55.81
	06/01/2019	\$35.58	\$7.60	\$13.50	\$0.00	\$56.68
	12/01/2019	\$36.44	\$7.60	\$13.50	\$0.00	\$57.54

**Classification**
**Effective Date**
**Base Wage**
**Health**
**Pension**
**Supplemental  
Unemployment**
**Total Rate**
**Apprentice - LABORER - Zone 2**
**Effective Date - 06/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$19.44	\$7.60	\$13.50	\$0.00	\$40.54
2	70	\$22.68	\$7.60	\$13.50	\$0.00	\$43.78
3	80	\$25.92	\$7.60	\$13.50	\$0.00	\$47.02
4	90	\$29.16	\$7.60	\$13.50	\$0.00	\$50.26

**Effective Date - 12/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$19.82	\$7.60	\$13.50	\$0.00	\$40.92
2	70	\$23.12	\$7.60	\$13.50	\$0.00	\$44.22
3	80	\$26.42	\$7.60	\$13.50	\$0.00	\$47.52
4	90	\$29.73	\$7.60	\$13.50	\$0.00	\$50.83

**Notes:**
**Apprentice to Journeyworker Ratio:1:5**
**LABORER: CARPENTER TENDER**
*LABORERS - ZONE 2*

06/01/2017	\$32.40	\$7.60	\$13.50	\$0.00	\$53.50
12/01/2017	\$33.03	\$7.60	\$13.50	\$0.00	\$54.13
06/01/2018	\$33.87	\$7.60	\$13.50	\$0.00	\$54.97
12/01/2018	\$34.71	\$7.60	\$13.50	\$0.00	\$55.81
06/01/2019	\$35.58	\$7.60	\$13.50	\$0.00	\$56.68
12/01/2019	\$36.44	\$7.60	\$13.50	\$0.00	\$57.54

For apprentice rates see "Apprentice- LABORER"

**LABORER: CEMENT FINISHER TENDER**
*LABORERS - ZONE 2*

06/01/2017	\$32.40	\$7.60	\$13.50	\$0.00	\$53.50
12/01/2017	\$33.03	\$7.60	\$13.50	\$0.00	\$54.13
06/01/2018	\$33.87	\$7.60	\$13.50	\$0.00	\$54.97
12/01/2018	\$34.71	\$7.60	\$13.50	\$0.00	\$55.81
06/01/2019	\$35.58	\$7.60	\$13.50	\$0.00	\$56.68
12/01/2019	\$36.44	\$7.60	\$13.50	\$0.00	\$57.54

For apprentice rates see "Apprentice- LABORER"

**LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER**
*LABORERS - ZONE 2*

06/01/2017	\$32.60	\$7.60	\$13.45	\$0.00	\$53.65
12/01/2017	\$33.23	\$7.60	\$13.45	\$0.00	\$54.28
06/01/2018	\$34.07	\$7.60	\$13.45	\$0.00	\$55.12
12/01/2018	\$34.91	\$7.60	\$13.45	\$0.00	\$55.96
06/01/2019	\$35.78	\$7.60	\$13.45	\$0.00	\$56.83
12/01/2019	\$36.64	\$7.60	\$13.45	\$0.00	\$57.69

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER: MASON TENDER <i>LABORERS - ZONE 2</i>	06/01/2017	\$32.65	\$7.60	\$13.50	\$0.00	\$53.75
	12/01/2017	\$33.28	\$7.60	\$13.50	\$0.00	\$54.38
	06/01/2018	\$34.12	\$7.60	\$13.50	\$0.00	\$55.22
	12/01/2018	\$34.96	\$7.60	\$13.50	\$0.00	\$56.06
	06/01/2019	\$35.83	\$7.60	\$13.50	\$0.00	\$56.93
	12/01/2019	\$36.69	\$7.60	\$13.50	\$0.00	\$57.79
For apprentice rates see "Apprentice- LABORER"						
LABORER: MULTI-TRADE TENDER <i>LABORERS - ZONE 2</i>	06/01/2017	\$32.40	\$7.60	\$13.50	\$0.00	\$53.50
	12/01/2017	\$33.03	\$7.60	\$13.50	\$0.00	\$54.13
	06/01/2018	\$33.87	\$7.60	\$13.50	\$0.00	\$54.97
	12/01/2018	\$34.71	\$7.60	\$13.50	\$0.00	\$55.81
	06/01/2019	\$35.58	\$7.60	\$13.50	\$0.00	\$56.68
	12/01/2019	\$36.44	\$7.60	\$13.50	\$0.00	\$57.54
For apprentice rates see "Apprentice- LABORER"						
LABORER: TREE REMOVER <i>LABORERS - ZONE 2</i>	06/01/2017	\$32.40	\$7.60	\$13.50	\$0.00	\$53.50
	12/01/2017	\$33.03	\$7.60	\$13.50	\$0.00	\$54.13
	06/01/2018	\$33.87	\$7.60	\$13.50	\$0.00	\$54.97
	12/01/2018	\$34.71	\$7.60	\$13.50	\$0.00	\$55.81
	06/01/2019	\$35.58	\$7.60	\$13.50	\$0.00	\$56.68
	12/01/2019	\$36.44	\$7.60	\$13.50	\$0.00	\$57.54
This classification applies to all tree work associated with the removal of standing trees, and trimming and removal of branches and limbs when the work is not done for a utility company for the purpose of operation, maintenance or repair of utility company equipment. For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2017	\$32.65	\$7.60	\$13.50	\$0.00	\$53.75
	12/01/2017	\$33.28	\$7.60	\$13.50	\$0.00	\$54.38
	06/01/2018	\$34.12	\$7.60	\$13.50	\$0.00	\$55.22
	12/01/2018	\$34.96	\$7.60	\$13.50	\$0.00	\$56.06
	06/01/2019	\$35.83	\$7.60	\$13.50	\$0.00	\$56.93
	12/01/2019	\$36.69	\$7.60	\$13.50	\$0.00	\$57.79
For apprentice rates see "Apprentice- LABORER"						
MARBLE & TILE FINISHERS <i>BRICKLAYERS LOCAL 3 (WORCESTER) - MARBLE &amp; TILE</i>	02/01/2017	\$38.78	\$10.75	\$17.67	\$0.00	\$67.20

**Apprentice - MARBLE & TILE FINISHER - Local 3 Marble & Tile**

**Effective Date -** 02/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.39	\$10.75	\$17.67	\$0.00	\$47.81
2	60	\$23.27	\$10.75	\$17.67	\$0.00	\$51.69
3	70	\$27.15	\$10.75	\$17.67	\$0.00	\$55.57
4	80	\$31.02	\$10.75	\$17.67	\$0.00	\$59.44
5	90	\$34.90	\$10.75	\$17.67	\$0.00	\$63.32

**Notes:**

**Apprentice to Journeyworker Ratio:1:3**

MARBLE MASONS, TILELAYERS & TERRAZZO MECH <i>BRICKLAYERS LOCAL 3 (WORCESTER) - MARBLE &amp; TILE</i>	03/01/2017	\$48.66	\$10.75	\$18.62	\$0.00	\$78.03
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**Classification**
**Effective Date**
**Base Wage**
**Health**
**Pension**
**Supplemental  
Unemployment**
**Total Rate**
**Apprentice - MARBLE-TILE-TERRAZZO MECHANIC - Local 3 Marble & Tile (Worc)**
**Effective Date - 03/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.33	\$10.75	\$18.34	\$0.00	\$53.42
2	60	\$29.20	\$10.75	\$18.34	\$0.00	\$58.29
3	70	\$34.06	\$10.75	\$18.34	\$0.00	\$63.15
4	80	\$38.93	\$10.75	\$18.34	\$0.00	\$68.02
5	90	\$43.79	\$10.75	\$18.34	\$0.00	\$72.88

**Notes:**
**Apprentice to Journeyworker Ratio:1:5**

MECH. SWEEPER OPERATOR (ON CONST. SITES)	06/01/2017	\$45.93	\$10.00	\$15.25	\$0.00	\$71.18
OPERATING ENGINEERS LOCAL 4	12/01/2017	\$46.92	\$10.00	\$15.25	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MECHANICS MAINTENANCE	06/01/2017	\$45.93	\$10.00	\$15.25	\$0.00	\$71.18
OPERATING ENGINEERS LOCAL 4	12/01/2017	\$46.92	\$10.00	\$15.25	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MILLWRIGHT (Zone 3)	04/01/2017	\$33.81	\$9.90	\$18.50	\$0.00	\$62.21
MILLWRIGHTS LOCAL 1121 - Zone 3	10/01/2017	\$34.64	\$9.90	\$18.50	\$0.00	\$63.04
	04/01/2018	\$35.46	\$9.90	\$18.50	\$0.00	\$63.86
	10/01/2018	\$36.29	\$9.90	\$18.50	\$0.00	\$64.69
	04/01/2019	\$37.11	\$9.90	\$18.50	\$0.00	\$65.51

**Apprentice - MILLWRIGHT - Local 1121 Zone 3**
**Effective Date - 04/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$18.60	\$9.90	\$5.31	\$0.00	\$33.81
2	65	\$21.98	\$9.90	\$15.13	\$0.00	\$47.01
3	75	\$25.36	\$9.90	\$16.10	\$0.00	\$51.36
4	85	\$28.74	\$9.90	\$17.06	\$0.00	\$55.70

**Effective Date - 10/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$19.05	\$9.90	\$5.31	\$0.00	\$34.26
2	65	\$22.52	\$9.90	\$15.13	\$0.00	\$47.55
3	75	\$25.98	\$9.90	\$16.10	\$0.00	\$51.98
4	85	\$29.44	\$9.90	\$17.06	\$0.00	\$56.40

**Notes:**

Steps are 2,000 hours

**Apprentice to Journeyworker Ratio:1:5**



Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
MORTAR MIXER <i>LABORERS - ZONE 2</i>	06/01/2017	\$32.65	\$7.60	\$13.50	\$0.00	\$53.75
	12/01/2017	\$33.28	\$7.60	\$13.50	\$0.00	\$54.38
	06/01/2018	\$34.12	\$7.60	\$13.50	\$0.00	\$55.22
	12/01/2018	\$34.96	\$7.60	\$13.50	\$0.00	\$56.06
	06/01/2019	\$35.83	\$7.60	\$13.50	\$0.00	\$56.93
	12/01/2019	\$36.69	\$7.60	\$13.50	\$0.00	\$57.79
For apprentice rates see "Apprentice- LABORER"						
OILER (OTHER THAN TRUCK CRANES,GRADALLS) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2017	\$23.47	\$10.00	\$15.25	\$0.00	\$48.72
	12/01/2017	\$23.99	\$10.00	\$15.25	\$0.00	\$49.24
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
OILER (TRUCK CRANES, GRADALLS) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2017	\$27.54	\$10.00	\$15.25	\$0.00	\$52.79
	12/01/2017	\$28.15	\$10.00	\$15.25	\$0.00	\$53.40
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
OTHER POWER DRIVEN EQUIPMENT - CLASS II <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2017	\$45.93	\$10.00	\$15.25	\$0.00	\$71.18
	12/01/2017	\$46.92	\$10.00	\$15.25	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PAINTER (BRIDGES/TANKS) <i>PAINTERS LOCAL 35 - ZONE 2</i>	01/01/2017	\$51.41	\$7.85	\$16.10	\$0.00	\$75.36

**Apprentice - PAINTER Local 35 - BRIDGES/TANKS**

**Effective Date -** 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.71	\$7.85	\$0.00	\$0.00	\$33.56
2	55	\$28.28	\$7.85	\$3.66	\$0.00	\$39.79
3	60	\$30.85	\$7.85	\$3.99	\$0.00	\$42.69
4	65	\$33.42	\$7.85	\$4.32	\$0.00	\$45.59
5	70	\$35.99	\$7.85	\$14.11	\$0.00	\$57.95
6	75	\$38.56	\$7.85	\$14.44	\$0.00	\$60.85
7	80	\$41.13	\$7.85	\$14.77	\$0.00	\$63.75
8	90	\$46.27	\$7.85	\$15.44	\$0.00	\$69.56

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

PAINTER (SPRAY OR SANDBLAST, NEW) *	01/01/2017	\$42.31	\$7.85	\$16.10	\$0.00	\$66.26
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\* If 30% or more of surfaces to be painted are new construction,  
NEW paint rate shall be used.*PAINTERS LOCAL 35 - ZONE 2*

**Classification**

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

**Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - New**
**Effective Date - 01/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.16	\$7.85	\$0.00	\$0.00	\$29.01
2	55	\$23.27	\$7.85	\$3.66	\$0.00	\$34.78
3	60	\$25.39	\$7.85	\$3.99	\$0.00	\$37.23
4	65	\$27.50	\$7.85	\$4.32	\$0.00	\$39.67
5	70	\$29.62	\$7.85	\$14.11	\$0.00	\$51.58
6	75	\$31.73	\$7.85	\$14.44	\$0.00	\$54.02
7	80	\$33.85	\$7.85	\$14.77	\$0.00	\$56.47
8	90	\$38.08	\$7.85	\$15.44	\$0.00	\$61.37

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

PAINTER (SPRAY OR SANDBLAST, REPAINT)	01/01/2017	\$40.37	\$7.85	\$16.10	\$0.00	\$64.32
<i>PAINTERS LOCAL 35 - ZONE 2</i>						

**Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - Repaint**
**Effective Date - 01/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.19	\$7.85	\$0.00	\$0.00	\$28.04
2	55	\$22.20	\$7.85	\$3.66	\$0.00	\$33.71
3	60	\$24.22	\$7.85	\$3.99	\$0.00	\$36.06
4	65	\$26.24	\$7.85	\$4.32	\$0.00	\$38.41
5	70	\$28.26	\$7.85	\$14.11	\$0.00	\$50.22
6	75	\$30.28	\$7.85	\$14.44	\$0.00	\$52.57
7	80	\$32.30	\$7.85	\$14.77	\$0.00	\$54.92
8	90	\$36.33	\$7.85	\$15.44	\$0.00	\$59.62

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

PAINTER (TRAFFIC MARKINGS)	06/01/2017	\$32.40	\$7.60	\$13.50	\$0.00	\$53.50
<i>LABORERS - ZONE 2</i>						
	12/01/2017	\$33.03	\$7.60	\$13.50	\$0.00	\$54.13
	06/01/2018	\$33.87	\$7.60	\$13.50	\$0.00	\$54.97
	12/01/2018	\$34.71	\$7.60	\$13.50	\$0.00	\$55.81
	06/01/2019	\$35.58	\$7.60	\$13.50	\$0.00	\$56.68
	12/01/2019	\$36.44	\$7.60	\$13.50	\$0.00	\$57.54

For Apprentice rates see "Apprentice- LABORER"

PAINTER / TAPER (BRUSH, NEW) *	01/01/2017	\$40.91	\$7.85	\$16.10	\$0.00	\$64.86
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\* If 30% or more of surfaces to be painted are new construction,  
NEW paint rate shall be used.*PAINTERS LOCAL 35 - ZONE 2*

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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**Apprentice - PAINTER - Local 35 Zone 2 - BRUSH NEW**

**Effective Date -** 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.46	\$7.85	\$0.00	\$0.00	\$28.31
2	55	\$22.50	\$7.85	\$3.66	\$0.00	\$34.01
3	60	\$24.55	\$7.85	\$3.99	\$0.00	\$36.39
4	65	\$26.59	\$7.85	\$4.32	\$0.00	\$38.76
5	70	\$28.64	\$7.85	\$14.11	\$0.00	\$50.60
6	75	\$30.68	\$7.85	\$14.44	\$0.00	\$52.97
7	80	\$32.73	\$7.85	\$14.77	\$0.00	\$55.35
8	90	\$36.82	\$7.85	\$15.44	\$0.00	\$60.11

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

PAINTER / TAPER (BRUSH, REPAINT)	01/01/2017	\$38.97	\$7.85	\$16.10	\$0.00	\$62.92
<i>PAINTERS LOCAL 35 - ZONE 2</i>						

**Apprentice - PAINTER Local 35 Zone 2 - BRUSH REPAINT**

**Effective Date -** 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.49	\$7.85	\$0.00	\$0.00	\$27.34
2	55	\$21.43	\$7.85	\$3.66	\$0.00	\$32.94
3	60	\$23.38	\$7.85	\$3.99	\$0.00	\$35.22
4	65	\$25.33	\$7.85	\$4.32	\$0.00	\$37.50
5	70	\$27.28	\$7.85	\$14.11	\$0.00	\$49.24
6	75	\$29.23	\$7.85	\$14.44	\$0.00	\$51.52
7	80	\$31.18	\$7.85	\$14.77	\$0.00	\$53.80
8	90	\$35.07	\$7.85	\$15.44	\$0.00	\$58.36

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

PANEL & PICKUP TRUCKS DRIVER	12/01/2012	\$30.28	\$9.07	\$8.00	\$0.00	\$47.35
<i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>						

PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK)	09/01/2013	\$37.01	\$9.80	\$18.17	\$0.00	\$64.98
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*PILE DRIVER LOCAL 56 (ZONE 2)*

For apprentice rates see "Apprentice- PILE DRIVER"

PILE DRIVER	09/01/2013	\$37.01	\$9.80	\$18.17	\$0.00	\$64.98
<i>PILE DRIVER LOCAL 56 (ZONE 2)</i>						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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**Apprentice - PILE DRIVER - Local 56 Zone 2**

**Effective Date - 09/01/2013**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

**Notes:** Apprentice wages shall be no less than the following Steps;  
(Same as set in Zone 1)  
1\$50.05/2\$54.25/3\$58.46/4\$60.56/5\$62.66/6\$62.66/7\$66.87/8\$66.87

**Apprentice to Journeyworker Ratio:1:3**

PIPELAYER	06/01/2017	\$32.65	\$7.60	\$13.50	\$0.00	\$53.75
LABORERS - ZONE 2	12/01/2017	\$33.28	\$7.60	\$13.50	\$0.00	\$54.38
	06/01/2018	\$34.12	\$7.60	\$13.50	\$0.00	\$55.22
	12/01/2018	\$34.96	\$7.60	\$13.50	\$0.00	\$56.06
	06/01/2019	\$35.83	\$7.60	\$13.50	\$0.00	\$56.93
	12/01/2019	\$36.69	\$7.60	\$13.50	\$0.00	\$57.79

For apprentice rates see "Apprentice- LABORER"

PLUMBER & PIPEFITTER	03/01/2017	\$42.81	\$9.35	\$14.81	\$0.00	\$66.97
PLUMBERS LOCAL 4	09/01/2017	\$43.41	\$9.35	\$14.81	\$0.00	\$67.57
	03/01/2018	\$44.06	\$9.35	\$14.81	\$0.00	\$68.22

**Apprentice - PLUMBER/PIPEFITTER - Local 4**

**Effective Date - 03/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.12	\$9.35	\$0.00	\$0.00	\$26.47
2	50	\$21.41	\$9.35	\$0.00	\$0.00	\$30.76
3	60	\$25.69	\$9.35	\$0.00	\$0.00	\$35.04
4	70	\$29.97	\$9.35	\$5.10	\$0.00	\$44.42
5	80	\$34.25	\$9.35	\$5.10	\$0.00	\$48.70

**Effective Date - 09/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.36	\$9.35	\$0.00	\$0.00	\$26.71
2	50	\$21.71	\$9.35	\$0.00	\$0.00	\$31.06
3	60	\$26.05	\$9.35	\$0.00	\$0.00	\$35.40
4	70	\$30.39	\$9.35	\$5.10	\$0.00	\$44.84
5	80	\$34.73	\$9.35	\$5.10	\$0.00	\$49.18

**Notes:**  
Steps - 2000 hrs;Step 4 w/license-75;Step 5 w/license-85  
Step 4 with lic\$46.56 Step 5 with lic\$50.84

**Apprentice to Journeyworker Ratio:1:3**

PNEUMATIC CONTROLS (TEMP.)	03/01/2017	\$42.81	\$9.35	\$14.81	\$0.00	\$66.97
PLUMBERS LOCAL 4	09/01/2017	\$43.41	\$9.35	\$14.81	\$0.00	\$67.57
	03/01/2018	\$44.06	\$9.35	\$14.81	\$0.00	\$68.22

For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"



Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PNEUMATIC DRILL/TOOL OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2017	\$32.65	\$7.60	\$13.50	\$0.00	\$53.75
	12/01/2017	\$33.28	\$7.60	\$13.50	\$0.00	\$54.38
	06/01/2018	\$34.12	\$7.60	\$13.50	\$0.00	\$55.22
	12/01/2018	\$34.96	\$7.60	\$13.50	\$0.00	\$56.06
	06/01/2019	\$35.83	\$7.60	\$13.50	\$0.00	\$56.93
	12/01/2019	\$36.69	\$7.60	\$13.50	\$0.00	\$57.79
For apprentice rates see "Apprentice- LABORER"						
POWDERMAN & BLASTER <i>LABORERS - ZONE 2</i>	06/01/2017	\$33.40	\$7.60	\$13.50	\$0.00	\$54.50
	12/01/2017	\$34.03	\$7.60	\$13.50	\$0.00	\$55.13
	06/01/2018	\$34.87	\$7.60	\$13.50	\$0.00	\$55.97
	12/01/2018	\$35.71	\$7.60	\$13.50	\$0.00	\$56.81
	06/01/2019	\$36.58	\$7.60	\$13.50	\$0.00	\$57.68
	12/01/2019	\$37.44	\$7.60	\$13.50	\$0.00	\$58.54
For apprentice rates see "Apprentice- LABORER"						
POWER SHOVEL/DERRICK/TRENCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2017	\$46.38	\$10.00	\$15.25	\$0.00	\$71.63
	12/01/2017	\$47.38	\$10.00	\$15.25	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (CONCRETE) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2017	\$46.38	\$10.00	\$15.25	\$0.00	\$71.63
	12/01/2017	\$47.38	\$10.00	\$15.25	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (DEWATERING, OTHER) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2017	\$31.86	\$10.00	\$15.25	\$0.00	\$57.11
	12/01/2017	\$32.55	\$10.00	\$15.25	\$0.00	\$57.80
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
READY-MIX CONCRETE DRIVER <i>TEAMSTERS LOCAL 170</i>	05/01/2017	\$24.92	\$9.96	\$8.26	\$0.00	\$43.14
	12/01/2017	\$24.95	\$9.96	\$8.26	\$0.00	\$43.17
	01/01/2018	\$24.95	\$10.24	\$8.26	\$0.00	\$43.45
	02/02/2018	\$25.01	\$10.24	\$8.36	\$0.00	\$43.61
	03/01/2018	\$25.04	\$10.24	\$8.46	\$0.00	\$43.74
	05/01/2018	\$25.09	\$10.24	\$8.56	\$0.00	\$43.89
	12/01/2018	\$25.12	\$10.24	\$8.56	\$0.00	\$43.92
	01/01/2019	\$25.12	\$10.41	\$8.56	\$0.00	\$44.09
	12/01/2019	\$25.15	\$10.41	\$8.56	\$0.00	\$44.12
	01/01/2020	\$25.15	\$10.46	\$8.56	\$0.00	\$44.17
RECLAIMERS <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2017	\$45.93	\$10.00	\$15.25	\$0.00	\$71.18
	12/01/2017	\$46.92	\$10.00	\$15.25	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
RESIDENTIAL WOOD FRAME (All Other Work) <i>CARPENTERS -ZONE 2 (Residential Wood)</i>	06/01/2016	\$25.32	\$9.80	\$16.82	\$0.00	\$51.94
RESIDENTIAL WOOD FRAME CARPENTER ** ** The Residential Wood Frame Carpenter classification applies only to the construction of new, wood frame residences that do not exceed four stories including the basement. <i>CARPENTERS -ZONE 2 (Residential Wood)</i>	04/01/2017	\$26.31	\$7.07	\$7.18	\$0.00	\$40.56
	10/01/2017	\$26.93	\$7.07	\$7.18	\$0.00	\$41.18
	04/01/2018	\$27.35	\$7.07	\$7.18	\$0.00	\$41.60
	10/01/2018	\$27.77	\$7.07	\$7.18	\$0.00	\$42.02
	04/01/2019	\$28.20	\$7.07	\$7.18	\$0.00	\$42.45
	10/01/2019	\$28.63	\$7.07	\$7.18	\$0.00	\$42.88
As of 9/1/09 Carpentry work on wood-frame residential WEATHERIZATION projects shall be paid the RESIDENTIAL WOOD FRAME CARPENTER rate.						

**Classification**

**Effective Date   Base Wage   Health   Pension   Supplemental Unemployment   Total Rate**

**Apprentice - CARPENTER (Residential Wood Frame) - Zone 2**
**Effective Date - 04/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$15.79	\$7.07	\$0.00	\$0.00	\$22.86
2	60	\$15.79	\$7.07	\$0.00	\$0.00	\$22.86
3	65	\$17.10	\$7.07	\$7.18	\$0.00	\$31.35
4	70	\$18.42	\$7.07	\$7.18	\$0.00	\$32.67
5	75	\$19.73	\$7.07	\$7.18	\$0.00	\$33.98
6	80	\$21.05	\$7.07	\$7.18	\$0.00	\$35.30
7	85	\$22.36	\$7.07	\$7.18	\$0.00	\$36.61
8	90	\$23.68	\$7.07	\$7.18	\$0.00	\$37.93

**Effective Date - 10/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$16.16	\$7.07	\$0.00	\$0.00	\$23.23
2	60	\$16.16	\$7.07	\$0.00	\$0.00	\$23.23
3	65	\$17.50	\$7.07	\$7.18	\$0.00	\$31.75
4	70	\$18.85	\$7.07	\$7.18	\$0.00	\$33.10
5	75	\$20.20	\$7.07	\$7.18	\$0.00	\$34.45
6	80	\$21.54	\$7.07	\$7.18	\$0.00	\$35.79
7	85	\$22.89	\$7.07	\$7.18	\$0.00	\$37.14
8	90	\$24.24	\$7.07	\$7.18	\$0.00	\$38.49

**Notes:**
**Apprentice to Journeyworker Ratio:1:5**

RIDE-ON MOTORIZED BUGGY OPERATOR LABORERS - ZONE 2	06/01/2017	\$32.65	\$7.60	\$13.50	\$0.00	\$53.75
	12/01/2017	\$33.28	\$7.60	\$13.50	\$0.00	\$54.38
	06/01/2018	\$34.12	\$7.60	\$13.50	\$0.00	\$55.22
	12/01/2018	\$34.96	\$7.60	\$13.50	\$0.00	\$56.06
	06/01/2019	\$35.83	\$7.60	\$13.50	\$0.00	\$56.93
	12/01/2019	\$36.69	\$7.60	\$13.50	\$0.00	\$57.79
For apprentice rates see "Apprentice- LABORER"						
ROLLER/SPREADER/MULCHING MACHINE OPERATING ENGINEERS LOCAL 4	06/01/2017	\$45.93	\$10.00	\$15.25	\$0.00	\$71.18
	12/01/2017	\$46.92	\$10.00	\$15.25	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
ROOFER (Inc.Roofers Waterproofing &Roofers Damproofg) ROOFERS LOCAL 33	02/01/2017	\$41.36	\$11.10	\$13.80	\$0.00	\$66.26
	08/01/2017	\$42.46	\$11.10	\$13.80	\$0.00	\$67.36
	02/01/2018	\$43.61	\$11.10	\$13.80	\$0.00	\$68.51
	08/01/2018	\$44.71	\$11.10	\$13.80	\$0.00	\$69.61
	02/01/2019	\$45.86	\$11.10	\$13.80	\$0.00	\$70.76

**Classification**
**Effective Date**
**Base Wage**
**Health**
**Pension**
**Supplemental  
Unemployment**
**Total Rate**
**Apprentice - ROOFER - Local 33**
**Effective Date - 02/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.68	\$11.10	\$3.44	\$0.00	\$35.22
2	60	\$24.82	\$11.10	\$13.80	\$0.00	\$49.72
3	65	\$26.88	\$11.10	\$13.80	\$0.00	\$51.78
4	75	\$31.02	\$11.10	\$13.80	\$0.00	\$55.92
5	85	\$35.16	\$11.10	\$13.80	\$0.00	\$60.06

**Effective Date - 08/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.23	\$11.10	\$3.44	\$0.00	\$35.77
2	60	\$25.48	\$11.10	\$13.80	\$0.00	\$50.38
3	65	\$27.60	\$11.10	\$13.80	\$0.00	\$52.50
4	75	\$31.85	\$11.10	\$13.80	\$0.00	\$56.75
5	85	\$36.09	\$11.10	\$13.80	\$0.00	\$60.99

**Notes:** \*\* 1:5, 2:6-10, the 1:10; Reroofing: 1:4, then 1:1  
 Step 1 is 2000 hrs.; Steps 2-5 are 1000 hrs.  
 (Hot Pitch Mechanics' receive \$1.00 hr. above ROOFER)

**Apprentice to Journeyworker Ratio:\*\***
**ROOFER SLATE / TILE / PRECAST CONCRETE**
*ROOFERS LOCAL 33*

02/01/2017	\$41.61	\$11.10	\$13.80	\$0.00	\$66.51
08/01/2017	\$42.71	\$11.10	\$13.80	\$0.00	\$67.61
02/01/2018	\$43.86	\$11.10	\$13.80	\$0.00	\$68.76
08/01/2018	\$44.96	\$11.10	\$13.80	\$0.00	\$69.86
02/01/2019	\$46.11	\$11.10	\$13.80	\$0.00	\$71.01

For apprentice rates see "Apprentice- ROOFER"

**SHEETMETAL WORKER**
*SHEETMETAL WORKERS LOCAL 63*

01/01/2017	\$32.24	\$10.64	\$15.49	\$1.75	\$60.12
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**Classification**
**Effective Date**
**Base Wage**
**Health**
**Pension**
**Supplemental  
Unemployment**
**Total Rate**
**Apprentice - SHEET METAL WORKER - Local 63**
**Effective Date - 01/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$14.51	\$6.21	\$4.36	\$0.00	\$25.08
2	50	\$16.12	\$6.55	\$4.85	\$0.00	\$27.52
3	55	\$17.73	\$6.88	\$8.72	\$0.98	\$34.31
4	60	\$19.34	\$7.22	\$8.72	\$1.06	\$36.34
5	65	\$20.96	\$7.55	\$8.72	\$1.12	\$38.35
6	70	\$22.57	\$7.88	\$8.72	\$1.18	\$40.35
7	75	\$24.18	\$8.22	\$8.72	\$1.23	\$42.35
8	80	\$25.79	\$9.30	\$14.52	\$1.43	\$51.04
9	85	\$27.40	\$9.64	\$14.52	\$1.49	\$53.05
10	90	\$29.02	\$9.98	\$14.52	\$1.55	\$55.07

**Notes:**
**Apprentice to Journeyworker Ratio:1:3**
**SIGN ERECTOR**
*PAINTERS LOCAL 35 - ZONE 2*

06/01/2013

\$25.81

\$7.07

\$7.05

\$0.00

\$39.93

**Apprentice - SIGN ERECTOR - Local 35 Zone 2**
**Effective Date - 06/01/2013**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$12.91	\$7.07	\$0.00	\$0.00	\$19.98
2	55	\$14.20	\$7.07	\$2.45	\$0.00	\$23.72
3	60	\$15.49	\$7.07	\$2.45	\$0.00	\$25.01
4	65	\$16.78	\$7.07	\$2.45	\$0.00	\$26.30
5	70	\$18.07	\$7.07	\$7.05	\$0.00	\$32.19
6	75	\$19.36	\$7.07	\$7.05	\$0.00	\$33.48
7	80	\$20.65	\$7.07	\$7.05	\$0.00	\$34.77
8	85	\$21.94	\$7.07	\$7.05	\$0.00	\$36.06
9	90	\$23.23	\$7.07	\$7.05	\$0.00	\$37.35

**Notes:**

Steps are 4 mos.

**Apprentice to Journeyworker Ratio:1:1**
**SPECIALIZED EARTH MOVING EQUIP < 35 TONS**
*TEAMSTERS JOINT COUNCIL NO. 10 ZONE B*

12/01/2016

\$32.44

\$10.91

\$10.89

\$0.00

\$54.24

**SPECIALIZED EARTH MOVING EQUIP > 35 TONS**
*TEAMSTERS JOINT COUNCIL NO. 10 ZONE B*

12/01/2016

\$32.73

\$10.91

\$10.89

\$0.00

\$54.53

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
SPRINKLER FITTER <i>SPRINKLER FITTERS LOCAL 669</i>	04/01/2017	\$40.26	\$9.17	\$12.43	\$0.00	\$61.86
	01/01/2018	\$40.26	\$9.67	\$12.63	\$0.00	\$62.56
	04/01/2018	\$41.51	\$9.67	\$12.88	\$0.00	\$64.06
	01/01/2019	\$41.51	\$10.02	\$13.08	\$0.00	\$64.61

**Apprentice - SPRINKLER FITTER - Local 669**

**Effective Date - 04/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$18.12	\$7.60	\$0.00	\$0.00	\$25.72
2	50	\$20.13	\$7.60	\$0.00	\$0.00	\$27.73
3	55	\$22.14	\$9.17	\$6.60	\$0.00	\$37.91
4	60	\$24.16	\$9.17	\$6.60	\$0.00	\$39.93
5	65	\$26.17	\$9.17	\$6.85	\$0.00	\$42.19
6	70	\$28.18	\$9.17	\$6.85	\$0.00	\$44.20
7	75	\$30.20	\$9.17	\$6.85	\$0.00	\$46.22
8	80	\$32.21	\$9.17	\$6.85	\$0.00	\$48.23
9	85	\$34.22	\$9.17	\$6.85	\$0.00	\$50.24
10	90	\$36.23	\$9.17	\$6.85	\$0.00	\$52.25

**Effective Date - 01/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$18.12	\$7.75	\$0.00	\$0.00	\$25.87
2	50	\$20.13	\$7.75	\$0.00	\$0.00	\$27.88
3	55	\$22.14	\$9.67	\$6.80	\$0.00	\$38.61
4	60	\$24.16	\$9.67	\$6.80	\$0.00	\$40.63
5	65	\$26.17	\$9.67	\$7.05	\$0.00	\$42.89
6	70	\$28.18	\$9.67	\$7.05	\$0.00	\$44.90
7	75	\$30.20	\$9.67	\$7.05	\$0.00	\$46.92
8	80	\$32.21	\$9.67	\$7.05	\$0.00	\$48.93
9	85	\$34.22	\$9.67	\$7.05	\$0.00	\$50.94
10	90	\$36.23	\$9.67	\$7.05	\$0.00	\$52.95

**Notes:**

**Apprentice to Journeyworker Ratio:1:1**

STEAM BOILER OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2017	\$45.93	\$10.00	\$15.25	\$0.00	\$71.18
	12/01/2017	\$46.92	\$10.00	\$15.25	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2017	\$45.93	\$10.00	\$15.25	\$0.00	\$71.18
	12/01/2017	\$46.92	\$10.00	\$15.25	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TERRAZZO FINISHERS <i>BRICKLAYERS LOCAL 3 (WORCESTER) - MARBLE &amp; TILE</i>	02/01/2017	\$49.70	\$10.75	\$19.22	\$0.00	\$79.67



Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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**Apprentice - TERRAZZO FINISHER - Local 3 Marble & Tile**

**Effective Date -** 02/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.85	\$10.75	\$19.22	\$0.00	\$54.82
2	60	\$29.82	\$10.75	\$19.22	\$0.00	\$59.79
3	70	\$34.79	\$10.75	\$19.22	\$0.00	\$64.76
4	80	\$39.76	\$10.75	\$19.22	\$0.00	\$69.73
5	90	\$44.73	\$10.75	\$19.22	\$0.00	\$74.70

**Notes:**

**Apprentice to Journeyworker Ratio:1:3**

TEST BORING DRILLER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2016	\$37.70	\$7.60	\$14.35	\$0.00	\$59.65
For apprentice rates see "Apprentice- LABORER"						
TEST BORING DRILLER HELPER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2016	\$36.42	\$7.60	\$14.35	\$0.00	\$58.37
For apprentice rates see "Apprentice- LABORER"						
TEST BORING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2016	\$36.30	\$7.60	\$14.35	\$0.00	\$58.25
For apprentice rates see "Apprentice- LABORER"						
TRACTORS/PORTABLE STEAM GENERATORS <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2017	\$45.93	\$10.00	\$15.25	\$0.00	\$71.18
	12/01/2017	\$46.92	\$10.00	\$15.25	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TRAILERS FOR EARTH MOVING EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2016	\$33.02	\$10.91	\$10.89	\$0.00	\$54.82
TUNNEL WORK - COMPRESSED AIR <i>LABORERS (COMPRESSED AIR)</i>	12/01/2016	\$48.58	\$7.60	\$14.75	\$0.00	\$70.93
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) <i>LABORERS (COMPRESSED AIR)</i>	12/01/2016	\$50.58	\$7.60	\$14.75	\$0.00	\$72.93
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR <i>LABORERS (FREE AIR TUNNEL)</i>	12/01/2016	\$40.65	\$7.60	\$14.75	\$0.00	\$63.00
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR (HAZ. WASTE) <i>LABORERS (FREE AIR TUNNEL)</i>	12/01/2016	\$42.65	\$7.60	\$14.75	\$0.00	\$65.00
For apprentice rates see "Apprentice- LABORER"						
VAC-HAUL <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2016	\$32.44	\$10.91	\$10.89	\$0.00	\$54.24
VOICE-DATA-VIDEO TECHNICIAN <i>ELECTRICIANS LOCAL 96</i>	06/01/2017	\$28.78	\$9.43	\$12.91	\$0.00	\$51.12
	12/01/2017	\$29.04	\$9.57	\$12.92	\$0.00	\$51.53
	06/01/2018	\$29.72	\$9.82	\$13.19	\$0.00	\$52.73
	12/01/2018	\$29.87	\$10.07	\$13.20	\$0.00	\$53.14
	06/01/2019	\$31.55	\$10.07	\$13.25	\$0.00	\$54.87

**Apprentice - VOICE-DATA-VIDEO TECHNICIAN - Local 96**

**Effective Date - 06/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$14.39	\$9.43	\$3.81	\$0.00	\$27.63
2	55	\$15.83	\$9.43	\$3.85	\$0.00	\$29.11
3	60	\$17.27	\$9.43	\$12.57	\$0.00	\$39.27
4	65	\$18.71	\$9.43	\$12.61	\$0.00	\$40.75
5	70	\$20.15	\$9.43	\$12.65	\$0.00	\$42.23
6	75	\$21.59	\$9.43	\$12.70	\$0.00	\$43.72
7	80	\$23.02	\$9.43	\$12.74	\$0.00	\$45.19
8	85	\$24.46	\$9.43	\$12.78	\$0.00	\$46.67

**Effective Date - 12/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$14.52	\$9.57	\$3.82	\$0.00	\$27.91
2	55	\$15.97	\$9.57	\$3.86	\$0.00	\$29.40
3	60	\$17.42	\$9.57	\$12.57	\$0.00	\$39.56
4	65	\$18.88	\$9.57	\$12.62	\$0.00	\$41.07
5	70	\$20.33	\$9.57	\$12.66	\$0.00	\$42.56
6	75	\$21.78	\$9.57	\$12.70	\$0.00	\$44.05
7	80	\$23.23	\$9.57	\$12.75	\$0.00	\$45.55
8	85	\$24.68	\$9.57	\$12.79	\$0.00	\$47.04

**Notes:**

**Apprentice to Journeyworker Ratio:1:1**

WAGON DRILL OPERATOR	06/01/2017	\$32.65	\$7.60	\$13.50	\$0.00	\$53.75
LABORERS - ZONE 2	12/01/2017	\$33.28	\$7.60	\$13.50	\$0.00	\$54.38
	06/01/2018	\$34.12	\$7.60	\$13.50	\$0.00	\$55.22
	12/01/2018	\$34.96	\$7.60	\$13.50	\$0.00	\$56.06
	06/01/2019	\$35.83	\$7.60	\$13.50	\$0.00	\$56.93
	12/01/2019	\$36.69	\$7.60	\$13.50	\$0.00	\$57.79
For apprentice rates see "Apprentice- LABORER"						
WASTE WATER PUMP OPERATOR	06/01/2017	\$46.38	\$10.00	\$15.25	\$0.00	\$71.63
OPERATING ENGINEERS LOCAL 4	12/01/2017	\$47.38	\$10.00	\$15.25	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
WATER METER INSTALLER	03/01/2017	\$42.81	\$9.35	\$14.81	\$0.00	\$66.97
PLUMBERS LOCAL 4	09/01/2017	\$43.41	\$9.35	\$14.81	\$0.00	\$67.57
	03/01/2018	\$44.06	\$9.35	\$14.81	\$0.00	\$68.22
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"						
<b>Outside Electrical - East</b>						
CABLE TECHNICIAN (Power Zone)	08/28/2016	\$26.61	\$7.50	\$1.80	\$0.00	\$35.91
OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	09/03/2017	\$27.14	\$7.75	\$1.81	\$0.00	\$36.70
For apprentice rates see "Apprentice- LINEMAN"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CABLEMAN (Underground Ducts & Cables) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	08/28/2016	\$37.70	\$7.50	\$8.87	\$0.00	\$54.07
For apprentice rates see "Apprentice- LINEMAN"	09/03/2017	\$38.45	\$7.75	\$9.53	\$0.00	\$55.73
DRIVER / GROUNDMAN CDL <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	08/28/2016	\$31.05	\$7.50	\$8.89	\$0.00	\$47.44
For apprentice rates see "Apprentice- LINEMAN"	09/03/2017	\$31.66	\$7.75	\$9.44	\$0.00	\$48.85
DRIVER / GROUNDMAN -Inexperienced (<2000 Hrs) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	08/28/2016	\$24.39	\$7.50	\$1.73	\$0.00	\$33.62
For apprentice rates see "Apprentice- LINEMAN"	09/03/2017	\$24.88	\$7.75	\$1.75	\$0.00	\$34.38
EQUIPMENT OPERATOR (Class A CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	08/28/2016	\$37.70	\$7.50	\$12.95	\$0.00	\$58.15
For apprentice rates see "Apprentice- LINEMAN"	09/03/2017	\$38.45	\$7.75	\$13.61	\$0.00	\$59.81
EQUIPMENT OPERATOR (Class B CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	08/28/2016	\$33.26	\$7.50	\$9.63	\$0.00	\$50.39
For apprentice rates see "Apprentice- LINEMAN"	09/03/2017	\$33.92	\$7.75	\$10.21	\$0.00	\$51.88
GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	08/28/2016	\$24.39	\$7.50	\$1.73	\$0.00	\$33.62
For apprentice rates see "Apprentice- LINEMAN"	09/03/2017	\$24.88	\$7.75	\$1.75	\$0.00	\$34.38
GROUNDMAN -Inexperienced (<2000 Hrs.) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	08/28/2016	\$19.96	\$7.50	\$1.60	\$0.00	\$29.06
For apprentice rates see "Apprentice- LINEMAN"	09/03/2017	\$20.35	\$7.75	\$1.61	\$0.00	\$29.71
JOURNEYMAN LINEMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	08/28/2016	\$44.35	\$7.50	\$15.83	\$0.00	\$67.68
	09/03/2017	\$45.23	\$7.75	\$16.61	\$0.00	\$69.59

**Classification**
**Effective Date**
**Base Wage**
**Health**
**Pension**
**Supplemental  
Unemployment**
**Total Rate**
**Apprentice - LINEMAN (Outside Electrical) - East Local 104**
**Effective Date - 08/28/2016**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$26.61	\$7.50	\$3.30	\$0.00	\$37.41
2	65	\$28.83	\$7.50	\$3.36	\$0.00	\$39.69
3	70	\$31.05	\$7.50	\$3.43	\$0.00	\$41.98
4	75	\$33.26	\$7.50	\$5.00	\$0.00	\$45.76
5	80	\$35.48	\$7.50	\$5.06	\$0.00	\$48.04
6	85	\$37.70	\$7.50	\$5.13	\$0.00	\$50.33
7	90	\$39.92	\$7.50	\$7.20	\$0.00	\$54.62

**Effective Date - 09/03/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$27.14	\$7.75	\$3.31	\$0.00	\$38.20
2	65	\$29.40	\$7.75	\$3.38	\$0.00	\$40.53
3	70	\$31.66	\$7.75	\$3.45	\$0.00	\$42.86
4	75	\$33.92	\$7.75	\$5.02	\$0.00	\$46.69
5	80	\$36.18	\$7.75	\$5.09	\$0.00	\$49.02
6	85	\$38.45	\$7.75	\$5.15	\$0.00	\$51.35
7	90	\$40.71	\$7.75	\$7.22	\$0.00	\$55.68

**Notes:**
**Apprentice to Journeyworker Ratio:1:2**

TELEDATA CABLE SPLICER <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/01/2016	\$28.98	\$4.25	\$3.12	\$0.00	\$36.35
TELEDATA LINEMAN/EQUIPMENT OPERATOR <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/01/2016	\$27.31	\$4.25	\$3.07	\$0.00	\$34.63
TELEDATA WIREMAN/INSTALLER/TECHNICIAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/01/2016	\$27.31	\$4.25	\$3.07	\$0.00	\$34.63
TREE TRIMMER <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/31/2016	\$18.51	\$3.55	\$0.00	\$0.00	\$22.06
This classification applies only to tree work done: (a) for a utility company, R.E.A. cooperative, or railroad or coal mining company, and (b) for the purpose of operating, maintaining, or repairing the utility company's equipment, and (c) by a person who is using hand or mechanical cutting methods and is not on the ground. This classification does not apply to wholesale tree removal.						
TREE TRIMMER GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/31/2016	\$16.32	\$3.55	\$0.00	\$0.00	\$19.87

This classification applies only to tree work done: (a) for a utility company, R.E.A. cooperative, or railroad or coal mining company, and (b) for the purpose of operating, maintaining, or repairing the utility company's equipment, and (c) by a person who is using hand or mechanical cutting methods and is on the ground. This classification does not apply to wholesale tree removal.

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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Additional Apprentice Information:

Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the pre-determined hourly wage rate established by the Commissioner under the provisions of the M.G.L. c. 149, ss. 26-27D. Apprentice ratios are established by the Division of Apprenticeship Training pursuant to M.G.L. c. 23, ss. 11E-11L.

All apprentices must be registered with the Division of Apprenticeship Training in accordance with M.G.L. c. 23, ss. 11E-11L.

All steps are six months (1000 hours.)  
Ratios are expressed in allowable number of apprentices to journeymen or fraction thereof, unless otherwise specified.

\*\* Multiple ratios are listed in the comment field.  
\*\*\* APP to JM; 1:1, 2:2, 2:3, 3:4, 4:4, 4:5, 4:6, 5:7, 6:7, 6:8, 6:9, 7:10, 8:10, 8:11, 8:12, 9:13, 10:13, 10:14, etc.  
\*\*\*\* APP to JM; 1:1, 1:2, 2:3, 2:4, 3:5, 4:6, 4:7, 5:8, 6:9, 6:10, 7:11, 8:12, 8:13, 9:14, 10:15, 10:16, etc.