

CAVANAUGH TOCCI ASSOCIATES, INCORPORATED

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June 12, 2014

Mr. Scott A. Mutch
Zoning Enforcement Officer & Assistant Town Planner
Town of Acton
Planning Department
472 Main Street
Acton, MA 01720

Project: Proposed Axe Brothers Tree Service Wood Processing Facility

Subject: Proposal for Sound Measurements and Evaluation

Dear Mr. Mutch,

The Axe Brothers Tree Service company is seeking Town of Acton approval to install and operate a portable Wood Processing Facility on a vacant portion of a parcel of land located at 848 Main Street, Acton, MA. The non-vacant portion of the land parcel is the site of the Trudeau Homes International Warehouse. Both portions of the land parcel at 848 Main Street are located within a Small Manufacturing (SM) Zoning District.

During the Permit Application process, one or more persons reviewing the Application expressed concerns regarding potential environmental noise that may be transmitted from the proposed Wood Processing Facility to nearby residences, in particular residences located at 31 and 47 Heartland Way, Acton, MA.

In response to the concerns regarding potential environmental noise, the Town of Acton has issued a Request for Quotes to local acoustical consulting firms to conduct sound measurements and evaluation. A copy of the Town of Acton Request for Quotes dated June 9, 2014 is attached.

This letter presents Cavanaugh Tocci Associates, Inc. proposal to provide acoustical consulting services in accordance with the Town of Acton Request For Quotes.

This proposal assumes the following:

- Cavanaugh Tocci Associates, Inc. would be under direct contract to the Town of Acton.
- Town of Acton representatives would coordinate our interaction with Axe Brothers, Trudeau International, and the owners of the residences at 31 and 47 Heartland Way, to

schedule the measurements and to obtain permission for us to conduct measurements on private properties.

- Axe Brothers would ensure that all the sound-producing components and the sequential operations of the Wood Processing Facility process (raw material inbound trucking, processed material outbound trucking, on-site loading/unloading equipment, wood processing equipment, raw materials, etc.) would be on-site and ready to operate on a specific day to be agreed and scheduled in advance by all parties for the sound measurements.
- Town of Acton and Axe Brothers representatives would ensure that the Wood Processing Facility would only operate when directed by Town of Acton for our measurements of Wood Processing Facility sound, and would not operate during our long-term measurements of background ambient sound levels (as described below).

Purpose

The three inter-related purposes of the proposed services are to:

- Quantify the ambient acoustical environment at the receptor properties of concern throughout at least one full processing cycle with Wood Processing Facility operations occurring (raw material inbound trucking, processed material outbound trucking, on-site loading/unloading equipment, processing equipment, etc.) at each of the residences of concern (31 and 47 Heartland Way).
- Quantify the ambient acoustical environment at the receptor properties of concern without any Wood Processing Facility operations occurring, for at least a full business day (7:00 AM - 3:30 PM, per Acton Request for Quotes) at each of the residences of concern.
- Compare and evaluate the differences between the acoustical environments with and without the Wood Processing Facility operation sound, in accordance with the Massachusetts Department of Environmental Protection (MassDEP) Community Sound Levels Criteria (outlined in MassDEP Fact Sheet, copy attached).

Proposal

Cavanaugh Tocci Associates, Inc. proposes to:

- In advance, coordinate with Town of Acton and pertinent property owner representatives, to schedule a site visit for a date to be agreed upon, during which Axe Brothers would operate the Wood Processing Facility through a series of full cycles of operation during specific time frames when we would be conducting measurements at receptor properties.
- On the day of the site visit, install at least two environmental sound monitors (one at 31 Heartland Way and one at 47 Heartland Way, and possibly a third at 848 Main Street) and program the sound monitors to continuously and simultaneously measure A-weighted (dBA) environmental sound levels at these locations for a minimum of two days.

- On the day of sound monitor installation (immediately following the installation of monitors) coordinate with Axe Brothers to operate the Wood Processing Facility for at least two full cycles of operations, while a Cavanaugh Tocci acoustical consultant simultaneously observes operations and measures sound levels and frequency (tonal) characteristics with a hand-held data-logging sound level meter / octave band frequency analyzer. These measurements would be conducted sequentially at 31 Heartland Way and 47 Heartland Way, respectively.
- Return to the site two days later and retrieve the unattended sound monitors (thereby collecting unattended sound monitoring data during one business day including specific portions of time with the Wood Processing Facility operating, and throughout at least one other full business day without any Wood Processing Facility operations occurring).
- Following the site visits, download the acoustical instrumentation in our offices and compare the sound levels and frequency characteristics measured with and without the Wood Processing facility operating (including data collected by the unattended monitors, and data collected by the hand-held sound meter / octave band frequency analyzer).
- Evaluate the differentials between sound levels and frequency characteristics with and without Wood Processing Facility operations, in accordance with the MassDEP acoustical criteria.
- Determine if (and the extent to which) noise control would be required to comply with the MassDEP acoustical criteria.
- Develop conceptual noise control recommendations to achieve compliance with MassDEP criteria (potentially such as one or more noise barrier walls or earthen berms located between sound source(s) and property line(s), and/or one or more acoustical enclosure(s) installed at the source(s), and/or one or more engine exhaust silencer(s), etc., to be determined). As of this proposal letter date, prior to measurements and evaluation, it is not possible to provide a fee quote for potential development of specific, detailed noise control recommendations.
- Prepare and submit written report summarizing the measurements and evaluation in accordance with MassDEP criteria.
- Attend one Town of Acton Public Meeting to discuss the measurements and evaluation.

Our not-to-exceed fee quote for the work scope listed above is: \$5000.00

Our fee quote does not include subsequent site visits or meetings, or development of detailed noise control recommendations, etc. that may be requested following submittal of the written report.

This proposal may be authorized by signature below and return copy; or by separate letter, Purchase Order, etc. referencing this proposal.

If we can provide any further information or answer any questions regarding this proposal, please do not hesitate to contact us. Thank you.

Sincerely,

CAVANAUGH TOCCI ASSOCIATES, INC.



Brion G. Koning, Senior Consultant

TownOfActonMA-WoodProcessingFacility-Proposal-6-12-2014.docx

Approved:

Authorizing Agency/Company

Signature

Print Name and Title

Date



Planning Department

TOWN OF ACTON
472 Main Street
Acton, Massachusetts 01720
Telephone: (978) 929-6631
Fax: (978) 929-6340
planning@acton-ma.gov
www.acton-ma.gov

June 9, 2014

Request for Quotes

Sound Analysis for Outdoor Wood Processing (Axe Bros. – Proposed Use)

Scope: Provide to the Town of Acton a sound analysis which at a minimum includes the following:

1. Establish baseline ambient sound level based on existing uses as measured at the northern most property line and the nearest inhabited building (47 Heartland Way) as well as in front of 31 Heartland Way. The ambient sound level should be calculated during the hours of operation of the Trudeau Homes International Warehouse which are 7:00am through 3:30pm.
2. Provide sound level readings, as measured at the northern most property line and the nearest inhabited building (47 Heartland Way) as well as in front of 31 Heartland Way, with the outdoor wood manufacturing business in full operation and through all phases of the process (unloading, loading, sawing, splitting, etc.).
3. Provide a determination as to whether or not the outdoor wood manufacturing, when in operation, meets or exceeds the applicable noise standards at the designated locations identified in the first and second points above.
4. Study date will be mutually agreed upon if and when all parties agree to move forward.
5. Provide industry standards and/or typical baselines with regards to how sound travels and its reduction over distance as related to impediments/barriers.
6. Provide list of potential recommended reasonable and cost-effective mitigation measures and advise as to their respective effectiveness in reducing noise.
7. Provide a list of commonly used and accepted means and methods of noise monitoring, compliance verification and measuring the effectiveness of mitigation measures (including frequency and costs associated) which the Board of Selectmen could include in a Use Special Permit (if granted).
8. The selected candidate shall attend a Public Hearing Meeting with the Board of Selectmen regarding the subject topic.

Property Owner & Location:

1. Trudeau Homes International
848 Main Street
Acton, MA 01720
2. The land is shown as Lot 39 on the Town of Acton Assessor's Tax Map C-5. It comprises approximately 8.3 acres (362,855 square feet) and has 182'-0" of

frontage on Main Street (Route 27).

3. The property is located within a Small Manufacturing (SM) Zoning District.
4. There is a large industrial building on the property originally constructed in approximately 1975 and has had several additions since.
5. Immediately abutting the 848 Main Street property is a Full Service Senior Retirement Community.

Standards: The sound analysis should be conducted in accordance with the Massachusetts Department of Environmental Protection (DEP) Noise Control Regulation, 310 CMR 7.10, under the authority of M.G.L. Chapter 111, Section § 142B and § 142D, and any other applicable State or Federal Laws & Regulations.

Context: An application for a Use Special Permit is currently before the Board of Selectmen which seeks approval for an outdoor wood manufacturing operation. Concerns have been raised by neighboring residents regarding the levels of noise emitted from such an outdoor wood manufacturing operation.

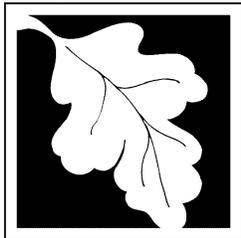
This RFQ is being issued in order to establish a price for the identified services and is for the consideration of all parties involved in order to determine as how to best proceed.

Quotes: Please provide a quote which includes the following:

1. A fee for all of the services identified.
2. A list of all services that will be provided for the quoted fee, in a general manner.

Quotes Requested By: June 20, 2014. Quotes will be presented to the Board of Selectmen during their scheduled meeting on Monday, June 23, 2014.

To: Scott A. Mutch
Zoning Enforcement Officer & Assistant Town Planner
Town of Acton
Planning Department
472 Main Street
Acton, MA 01720
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Commonwealth of
Massachusetts
Mitt Romney, Governor

Executive Office of
Environmental Affairs
Ellen Roy Herzfelder, Secretary

Department of
Environmental Protection
Edward P. Kunce,
Acting Commissioner

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(617) 574-6872.

fact sheet

Noise

Background

Noise is a type of air pollution that results from sounds that cause a nuisance, are or could injure public health, or unreasonably interfere with the comfortable enjoyment of life, property, or the conduct of business.

Types of sounds that may cause noise include:

- “Loud” continuous sounds from industrial or commercial activity, demolition, or highly amplified music;
- Sounds in narrow frequency ranges such as “squealing” fans or other rotary equipment; and
- Intermittent or “impact” sounds such as those from pile drivers, jackhammers, slamming truck tailgates, public address systems, etc.

Policy

A noise source will be considered to be violating the Department’s noise regulation (310 CMR 7.10) if the source:

1. Increases the broadband sound level by more than 10 dB(A) above ambient, or
2. Produce a “pure tone” condition – when any octave band center frequency sound pressure level exceeds the two adjacent center frequency sound pressure levels by 3 decibels or more.

These 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 operating hours. “Ambient” may also be established by other means with consent of the Department.

For more information:

For complaints about specific noise sources, call the Board of Health for the municipality in which the noise source is located.

To learn more about responding to noise, odor and dust complaints or to request state assistance or support, please contact the service center in the nearest DEP regional office.

- Central Region, Worcester: (508) 792-7683
- Northeast Region, Wilmington: (978) 661-7677
- Southeast Region, Lakeville: (508) 946-2714
- Western Region, Springfield: (413) 755-2214

This Policy was originally adopted by the MA Department of Public Health in the early 1970’s. It was reaffirmed by DEP’s Division of Air Quality Control on February 1, 1990, and has remained in effect.