

**TOWN OF HALIFAX  
ZONING BOARD OF ADJUSTMENT**

**Re: C.A. Denison Lumber Co., Inc.  
Application for Zoning Permit Conditional Use**

**PROPOSED DECISION BY  
PETITIONING VOTERS AND REAL PROPERTY OWNERS**

This Proposed Decision is filed by Susan M. Kelly individually and as the designated representative of the voters and/or owners of real property who have petitioned for interested person status under 24 V.S.A. § 4465(b)(4). In summary, as set forth below, the ZBA should find and conclude that the proposed schist quarry does not comply with the criteria and standards at Sections 203 and 501 of the Zoning Regulations, and that there are no conditions which could be imposed to bring the project into compliance with the criteria. Accordingly, the ZBA should deny conditional use approval for the proposed quarry.

**PRELIMINARY LEGAL ISSUES**

**I. ZONING IMPLEMENTS COMMUNITY VALUES AND STANDARDS AS ORIGINAL DECIDED BY THE UNITED STATES SUPREME COURT**

In 1926, the United States Supreme Court established the basic analytical framework for all zoning cases in *Village of Euclid v. Ambler Realty Company*, 272 U.S. 365, 47 S.Ct. 114, 71 L.Ed. 303 (1926). Even today, as this Board considers the proposed quarry, the principles set forth in *Euclid* actively apply such that this citizen board can confidently exercise its own independent factual and legal judgment over the merits of the quarry application. If you adhere to *Euclid* you will properly perform your duty. Your decision—your legal conclusion--will be based on the *evidence* (the “findings of fact”) as you, and you alone, find the evidence to be.

In *Euclid*, the immediate task for the United States Supreme Court was to decide whether a zoning ordinance could constitutionally discriminate between various land uses and their respective locations. Obviously, given what we know about land use law and regulation, the U.S. Supreme Court held that it was constitutional for a municipality to discriminate between competing land uses. In reaching this now commonly understood and accepted conclusion, the *Euclid* Court established the fundamental principle that the discrimination must be in *furtherance of the public health, safety and welfare* and based on the application of a set of community standards to the unique facts of each case. The Court stated in *Euclid*:

The ordinance now under review, and all similar laws and regulations, must find their justification in some aspect of the police power, asserted for the public welfare. The line which in this field separates the legitimate from the illegitimate assumption of power is not capable of precise delimitation. It varies with circumstances and conditions. A regulatory zoning ordinance, which would be clearly valid and as applied to the great cities, might be clearly invalid as applied to rural communities. In solving doubts, the maxim *sic utere tuo ut alienum non laedas*, which lies at the foundation of so much of the common law of nuisances, ordinarily will furnish a fairly helpful clew. And the law of nuisances, likewise, may be consulted, not for the purpose of controlling, but for the helpful aid of its analogies in the process of ascertaining the scope of, the power. Thus the question whether the power exists to forbid the erection of a building of a particular kind or for a particular use, like the question whether a particular thing is a nuisance, is to be determined, not by an abstract consideration of the building or of the thing considered apart, but by considering it in connection with the circumstances and the locality. **A nuisance may be merely a right thing in the wrong place,—like a pig in the parlor instead of the barnyard.** If the validity of the legislative classification for zoning purposes be fairly debatable, the legislative judgment must be allowed to control.

*Euclid*, 272 U.S. at 387-88. (Emphasis added.)

In its few words, *Euclid* established the fundamental principle that land use regulation is a matter for the community; that there must be community standards which, while discriminatory, protect the public health, safety, and welfare; that the standards are promulgated through the community's land use planning process as expressed in the town plan and zoning regulations; that the application of the community standards is analogous to nuisance such that the particular facts and circumstances of each proposed land use must be considered *in relation to the location of the proposed land use*; that the resolution of competing claims as to what is best for the community should be resolved through the application of the maxim "*sic utere tuo ut alienum non laedas*," that is: "Use your own property in such a manner as not to injure that of another;" and that the members of the ZBA are entrusted to resolve conditional use applications through the fair application of the community's land use planning values as set forth in the zoning regulations and town plan based on the purposes and policies of the land use district for where the project is to be located.

If the ZBA applies *Euclid*, then the ZBA will have admirably fulfilled its duty, regardless of the ultimate outcome.<sup>1</sup>

## **II. CONSIDERATION MAY BE MADE OF WHAT THE APPLICANTS AND THEIR EXPERTS SAID AT THE ACT 250 COMMISSION HEARINGS**

The applicants offered testimony and evidence before the Act 250 District #2 Commission. The applicants' testimony and evidence was provided under oath, with parties in

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<sup>1</sup> The *Euclid* decision can be obtained with the following Google search: "Euclid Ambler". The third result should be <https://supreme.justia.com/cases/federal/us/272/365/case.html>. The first result should be the Wikipedia entry [https://en.wikipedia.org/wiki/Village\\_of\\_Euclid\\_v.\\_Ambler\\_Realty\\_Co.#See\\_also](https://en.wikipedia.org/wiki/Village_of_Euclid_v._Ambler_Realty_Co.#See_also), which is a useful overview of the procedural history that led up to the decision. *Euclid* is read by every law student in first year property class. Don't be confused by the case citation: the "U.S." citation is the official reporter for the United States Supreme Court. Judges and lawyers also use "parallel" citations such as "S.Ct." and "L.Ed." for the decision's publication by private publishing companies such as West ("Westlaw"), and Lawyer's Edition (L.Ed).

attendance having the opportunity for cross examination. Under Vermont Rule of Evidence 801(d)(1) and (2), the applicants' testimony and evidence from the Act 250 hearing is not hearsay in this conditional use application proceeding. In addition, the applicants' answers to Act 250 Commission questions and parties' cross-examination is, likewise, not hearsay in this proceeding. ZBA members may rely upon what they heard and learned at the Act 250 hearings to evaluate the veracity of the evidence which the ZBA heard in its own hearings.<sup>2</sup>

### **III. THE APPLICANTS HAVE THE "BURDEN OF PROOF" AND THE BURDEN OF PROOF IS COMPRISED OF TWO ELEMENTS - THE "BURDEN OF PRODUCTION" AND THE "BURDEN OF PERSUASION"**

The ZBA's role is to decide whether to issue the applicants conditional use approval for the quarry project. To do that the ZBA has to decide whether the applicants have met their burden of proof with respect to the conditional use criteria at Regulations Section 203. In addition, the Regulations impose additional criteria under Regulations Section 501,

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<sup>2</sup> For further reading on V.R.E. 801, the starting place is the actual Vermont Rules of Evidence. Bear in mind that law students take an entire course devoted to evidence, and lawyers spend their careers trying to master the rules. Nevertheless, if you want to read V.R.E. 801 for yourself, then the rules are published as part of the "Green Books," that is, the Vermont Statutes Annotated series published by LexisNexis under the "Matthew Bender & Company" name. The books are the "Green Books" because they are published in hardcopy with a green binding. The current "Green Book" volume with the Vermont Rules of Evidence is the 2003 volume (the volume also contains the Rules of Criminal Procedure). At the back of the 2003 volume there is a yearly "Cumulative Supplement." Typically, each town clerk office will have a set of the Green Books, although not all town offices subscribe to the Cumulative Supplement. In the 2003 volume, you will find V.R.E. 801 beginning at page 450. At pages 451-459 of the 2003 volume you will find "Reporter's Notes" and annotations of cases decided under the rule and all of its sub-parts. There are more annotations in the Cumulative Supplement. If you want to find cases regarding how the Vermont Supreme Court has applied and interpreted V.R.E. 801 go to <http://scholar.google.com/>. Underneath the search box check "case law." You then need to select "Vermont courts" (a browser automatically defaults to this option if you frequently use this search engine, but for a first time user you may need to select it from a list of federal and state courts). Once you have "Vermont court" selected, you can search "VRE 801(d)(1)" and "VRE 801(d)(2)". There will be many, many case search results. The cases are highly technical. Therefore, given that this is a zoning hearing before a citizen board, you can safely apply the rule that if you were at the Act 250 commission hearing, you can evaluate the veracity of what you heard (or did not hear) at the ZBA hearings with what you heard (or did not hear) at the Act 250 hearings. There is nothing improper about doing this as long as your final decision is based upon your evaluation of the evidence from the ZBA hearings. Likewise, you can rely on your education and professional skill and training to evaluate the veracity of the evidence. Indeed, you were appointed to the ZBA, in part, precisely because of your education, and professional skill and training. You are entitled to rely on what you learned outside the ZBA hearing room to evaluate what you heard during the ZBA hearings.

Earth/Mineral Extraction. The applicants' Section 501 burden of proof is to prove that they comply with all of the criteria at Section 501.

The applicants bear the burden of proof because the applicants are trying to change the status quo and bring the quarry in to operation. The applicants have to show—meet the burden of proof—that the project complies with all criteria at Sections 203 and 501. If the applicants fail to do this, then the quarry project must be denied.

Under Vermont zoning law, the applicants' "burden of proof" is comprised of two elements. First, the applicants bear an initial "burden of production." Second, the applicants bear the "burden of persuasion." Therefore, to decide whether the applicants have met the "burden of proof" with respect to all criteria at Sections 203 and 501, the ZBA has to understand what is meant by the "burden of production" and the "burden of persuasion."

The "burden of production," sometimes referred to as the "burden of going forward," means that the applicants must provide, as an initial threshold matter, sufficient evidence upon which the ZBA could make an affirmative finding as to all criteria at Sections 203 and 501. If the ZBA concludes that the applicants have met their "burden of production," then the ZBA next considers whether the applicants have met their "burden of persuasion."

The "burden of persuasion" is met if the ZBA concludes, by a "preponderance of the evidence" (meaning "more likely than not") that the project affirmatively complies with all criteria at Sections 203 and 501, notwithstanding all contrary evidence and reasonable inferences. In other words, because the applicants seek to change the status quo, the applicants have to persuade the ZBA that it is more likely than not, notwithstanding all contrary evidence and reasonable inferences, that the project complies with the criteria at Sections 203 and 501. If

the applicants fail to do this, and conditions cannot be imposed to mitigate the undue adverse effects, then the application must be denied.

The ZBA has made clear that it wants to have support for the explanations of law provided by the parties (and presumably from its own counsel). The “burden of production” issue is yet another heavily litigated, nuanced issue. Nevertheless, there are a number of decisions which the ZBA can read which explore and explain the “burden of proof” concept. For now, however, consider the following two decisions.

The first decision is by Judge Walsh of the Environmental Division of the Superior Court. The name and citation of the decision is: In re Twin Pines Housing Trust and Dismas of Vermont Conditional Use, No. 95-7-11 Vtec, slip op. 8-9 (Vt. Env'tl. Div. April 26, 2012).<sup>3</sup>

In Twin Pines, there were competing pre-trial summary judgment motions made by the applicant, Dismas (a non-profit organization that provides transitional housing to formerly incarcerated Vermonters), and the appellants. Dismas' pre-trial motion asked the court to rule that it was undisputed that the proposed project met criterion Section 260-16.A(2) of the regulations at issue, which was no undue adverse effect on character of the area. In effect, Dismas wanted the court to conclude that it had met its burden of proof on the character of the area criterion, and that no trial on this issue of fact was disputed. The court rejected that this fact was undisputed, and ordered there to be a trial. In so doing, the court made clear that Dismas, as

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<sup>3</sup> A copy of the decision can be obtained from the court's website, <https://www.vermontjudiciary.org/GTC/environmental/default.aspx>, and clicking on the “opinions” link on the left side of the web page, and then clicking on the “2010-Present” link. The opinions (decisions) are then presented chronologically by year, by date of issuance. The link for Twin Pines is <https://www.vermontjudiciary.org/GTC/Environmental/ENVCRTOpinions2010-Present/Twin%20Pines%20Housing%20Trust%20and%20Dismas%20of%20Vermont%20CU%2095-7-11%20Vtec%20MSJ.pdf>.

the applicant, would bear the burden of proof at trial to show compliance with the character of the area criterion:

In Dismas' Statement of Undisputed Facts, Dismas provides Appellants' responses to interrogatories wherein Appellants describe their basis for asserting that the proposed project will adversely impact the character of the area. We understand Dismas to be asserting that Appellants' answers do not include information relevant to the Court's resolution of whether the proposed project complies with the criterion for conditional use approval found in Regulations § 260-16.A(2). **However, because Dismas will bear the burden of proof at trial to show that its application conforms with this criterion**, we would need more from Dismas to grant it summary judgment on questions 4 and 5.

Thus, Twin Pines makes clear that the applicant always bears the burden of proof, and this is true whether the proceeding is before the Environmental Division or, in this case, before the ZBA.

Next, there is Judge Durkin's decision In re: Rivers Dev. Con. Use Appeal, No. 7-1-05 Vtec, slip op. at 8-10 (Vt. Env'tl. Cr't. January 11, 2008)<sup>4</sup> where Judge Durkin explained the burdens of production and persuasion in the context of a zoning appeal which, like Twin Pines, was at the pretrial summary judgment stage. In making his ruling, Judge Durkin explained the burdens of production and persuasion would play out at trial:

Neighbors have also asserted that they are entitled to summary judgment because of Rivers's (sic) failure to identify the specific chemicals, explosives and equipment to be used at its proposed Quarry. Rivers counters that it has presented enough information to the Court in order to satisfy its burden of production, and that it will satisfy its burden of persuasion at trial.

In response to Question 7 of Neighbors' first set of discovery requests, Rivers admits that it "has not determined what equipment it will use for, by or in preparation of the Project." In response to

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<sup>4</sup> <https://www.vermontjudiciary.org/GTC/Environmental/ENVCRTOpinions2005-2009/Rivers%20Deveopment%20LLC.%207-1-05%20Vtec%202nd.pdf>

Neighbors' Question #8, Rivers admits that it "has not and cannot determine every substance which will be used . . . in preparation, construction and operation of the Project" and cannot commit to "using any particular explosive, or any particular equipment."

Neighbors are correct in noting that in the municipal permit appeal, Rivers bears the "burden of proving that [its] application complies with the applicable zoning ordinance provisions", In re Appeal of McLaughlin, Docket No. 42-2-05 Vtec, slip op. at 8 (Vt. Env'tl. Ct., March 13, 2006), and in the Act 250 permit appeal, Rivers "carries the initial burden of producing some evidence that would allow for positive findings upon each of the applicable Act 250 criteria." Route 103 Quarry, Docket No. 205-10-05 Vtec, slip op. at 8 (Vt. Env'tl. Ct., Nov. 22, 2006) (citations omitted). Burdens of proof and their components are often the determinative factor in many land use appeals. We must analyze its subsets in order to properly address the legal issue Neighbors raise here.

First, we note that the burden of production is something less than the burden of persuasion. Malaney v. Hannaford Bros. Co., 177 Vt. 123, 130-135 (2004). To meet the burden of production, a party is required to introduce evidence, often of a minimal nature, relating to the assertion of a material fact. Meeting the burden of persuasion requires more, namely that the party must present evidence sufficient to prove its case. The facts sufficient to fulfill a party's burden of persuasion are usually presented at trial.

Accordingly, Twin Pines and Rivers establish that the applicants bear the burden of proof. The burden of proof has two elements: production and persuasion. The ZBA's task is to decide whether the applicants have met their burden of proof with respect to all criteria at Sections 203 and 501 of the Regulations. There is no doubt that the task before the ZBA is a detailed, time consuming task, as it must go through each and every criterion at Sections 203 and 501, and decide whether the applicants have met their burden of proof.

#### IV. THE ZBA MAY MAKE ALL REASONABLE INFERENCES IN EVALUATING WHETHER THE APPLICANTS MET THEIR BURDEN OF PROOF

At the hearing on September 8, the issue arose as to what reasonable inferences, if any, the ZBA could make with respect to the evidence. The general principle is that the ZBA may make findings of fact based on the testimony and evidence it has received, and may also “draw reasonable inferences from the testimony it receives.” *In re Nash*, 158 Vt. 458, 462, 614 A.2d 367, 369 (1991).<sup>5</sup>

As explained at the September 8 hearing, the applicants have created two evidentiary omissions from which the ZBA may draw reasonable inferences which are adverse to the applicants.

First, there is the discrepancy between the proposed extraction of 144,348 cubic yards and the 482,430 cubic yards of earth removal which is shown on the reclamation plan. The reasonable inference to be drawn, based on the reclamation plan, is that the applicants propose to extract and haul away 482,430 cubic yards. This means the proposed quarry is far larger, with far greater undue adverse impacts which have not been fully disclosed to the ZBA.

The applicants have known of this discrepancy for six months since the Act 250 hearings, but have not clarified the discrepancy or disputed it. At the ZBA hearing in July, the applicants' engineer did not explain or refute the discrepancy, even though he was at the Act 250 hearing

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<sup>5</sup> *Nash* is available at: [http://scholar.google.com/scholar\\_case?case=14959439903859026058&q=.++In+re+Nash,+158+Vt.+458,+462,+614+A.2d+367,+369+\(1991\).&hl=en&as\\_sdt=4,46](http://scholar.google.com/scholar_case?case=14959439903859026058&q=.++In+re+Nash,+158+Vt.+458,+462,+614+A.2d+367,+369+(1991).&hl=en&as_sdt=4,46). Another example of this principle is *Hall v. Miller*, 143 Vt. 135, 140, 465 A.2d 222, 225 (Vt. 1983) stating the principle that, in a products liability dispute for sale of diseased cattle: “Circumstantial evidence provides an appropriate basis from which to draw reasonable inferences. *Vermont Food Industries, Inc. v. Ralston Purina Co.*, 514 F.2d 456, 462-63 (2d Cir.1975). As we have said, absolutely irrefutable inferences are not required by law. In the very nature of things no direct proof of the cause of the trouble can be given. Direct proof is not necessary. Circumstantial evidence may be resorted to, and such evidence will be sufficient to justify the verdict below, if there can be drawn therefrom a rational inference that the [defendants' product] was the source of the trouble.”

and has personally known of the discrepancy. Indeed, the applicants' engineer was intentionally vague and nonresponsive on this issue, in an apparent attempt to not share knowledge which he may have with respect to this issue. The applicants cannot now, after the close of the evidence, suddenly pop up with an explanation that should have been presented during the evidentiary hearing.

The reasonable inference which the ZBA should draw is that the proposed project is for 482,430 cubic yards, not 144,348, such that the applicants have failed to meet their burden of proof.

Second, there is the discrepancy over the applicants' pending application for an individual discharge permit. While the applicants say they have obtained all their permits from ANR, the applicants admitted that they have applied for, but not received, an individual discharge permit. At the July hearings the applicants were asked to provide the correspondence between the applicants and ANR regarding the discharge permit. The applicants have failed to provide the correspondence, which is their choice since they were not ordered to provide it. However, the ZBA heard the applicants admit that they have applied for, but have not received, an individual discharge permit. Indeed, what is quite disturbing is that the applicants were in possession of an August email exchange between ANR and the applicants' project engineer at VHB which could have been presented at the September 8 hearing regarding the application for the individual discharge permit, but the applicants withheld the email exchange. This has deprived the ZBA of relevant information.

Now that the evidence has closed, the reasonable inference for the ZBA to draw is that the applicants do not have a required individual discharge permit, and that there could be water pollution such that the applicants do not meet their burden of proof.

**V. THE ZBA NEEDS TO IDENTIFY EXISTING BASELINE CONDITIONS AND EVALUATE THE QUARRY'S DIFFERENTIAL IMPACT ON EXISTING CONDITIONS**

The conditional use review analysis begins with an identification of existing baseline conditions. Baseline conditions are established through evidence on those factors which are identified in the zoning regulations. For the ZBA's purposes this includes, but is certainly not limited to, what an area looks like, what it sounds like, what are the natural resources, what are the road conditions, and what are the existing land uses categories, that is, residential, commercial, industrial, recreational, agricultural, forestry, or earth and mineral extraction. The ZBA then identifies what impact, if any, a proposed use will have on the existing baseline conditions. This "difference" or "delta" is the differential impact analysis which is at the core of conditional use review.

There are numerous decisions by the Vermont Supreme Court and the Environmental division which go through a conditional use review differential impact analysis. These decisions all have unique fact patterns; can be at different stages of a proceeding; and can be either a "de novo" appeal, or an "on the record" appeal.

It would be impossible for the ZBA to learn all the decisions, and all the nuances, which go into conditional use review and the practice of law in this area. The role of the ZBA is *not* to become a court. Yet, the ZBA must adhere to legal principles, although it does so as a citizen board applying community values. Each conditional use review decision is, at its core, a

differential impact analysis. Each decision asks and answers what impact, if any, will the proposed use have on existing conditions in relation to the criteria set forth in the zoning regulations? That is the task for this citizen board in the exercise of its own independent factual and legal judgment.

Here is how the Vermont Supreme Court explained the differential impact analysis in *In re John A. Russell Corp.*, 2003 VT 93 ¶ 33, 176 Vt. 520, 527-28, 838 A.2d 906 (2003)<sup>6</sup>:

We cannot conclude that the Environmental Court conducted a complete analysis in applying the conditional use standards, particularly with respect to cumulative impacts. By looking primarily at the zoning and Act 250 permit limits imposed on the existing operation, the court failed to find what differential impact would actually occur as a result of the asphalt plant. For example, with respect to noise, the court found that the plant would not cause the overall operation to emit noise in excess of the decibel limits in the preexisting permits, but did not evaluate the neighbors' complaint that the frequency of loud noise would increase and affect the use and enjoyment of nearby residences. Similarly, while the overall operation would remain within truck traffic limits, the court did not evaluate what increase in truck traffic would occur as a result of the presence of the asphalt plant and whether the additional traffic would produce an adverse effect. See 24 V.S.A. § 4407(2)(C). The failure to look at differential impact of industrial uses in a zone intended primarily for residential and commercial uses creates the risk that the character of the neighborhood will incrementally shift so that the industrial uses dominate. See *Howard v. Canyon County Bd. of Comm'rs*, 128 Idaho 479, 915 P.2d 709, 711 (1996) (upholding rejection of conditional use application for a third residential subdivision in an area with a "pervasively agricultural character," stating that "whether to grant a conditional use permit is fact specific. One or two residential areas in an agricultural zone may have only a de minimis effect, but a third development may cumulatively affect the overall character of the area."). The judgment of the Environmental Court must therefore be reversed, and the matter remanded to require the court to address the issue of the cumulative impact of the added

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<sup>6</sup> Available by searching "In re John A. Russell Corp. 838 A.2d 906" with the search result link being: [http://scholar.google.com/scholar\\_case?case=647411557682991565&q=In+re+John+A.+Russell+Corp.+838+A.2d+906+&hl=en&as\\_sdt=4,46](http://scholar.google.com/scholar_case?case=647411557682991565&q=In+re+John+A.+Russell+Corp.+838+A.2d+906+&hl=en&as_sdt=4,46)

noise and any other additional adverse environmental consequences of the proposed plant.

While *Russell* was a permit amendment application (and this is not), *Russell* is instructive in this matter because it is an example of the differential impact analysis. Please keep this in mind as you sift through all the evidence and testimony, and determine whether the applicants have properly addressed the General Conditional Use Standards at Section 203(3)(A), and the standards at Section 501.

### **PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW**

As set forth below, the evidence and testimony, including all reasonable inferences, establishes that the applicants have failed to meet their burden of proof with respect to Section 203(3)A, General “Conditional Use Standards.” Further, there are no conditions which can be applied under the Specific Conditional Use Standards which would bring the project into compliance with the General Conditional Use Standards.

Likewise, the applicants have failed to meet their burden of proof with respect to all of the criteria at Section 501, including, but not limited to: failing to meet the General Performance Standards at Section 405; and the creation of an adverse impact on the both the quality and quantity of neighboring water supplies; that the operation will cause unreasonable soil erosion and would result in a reduction of the capacity of the land to hold water leading to dangerous or unhealthy conditions; that wetlands and streams will be adversely impacted; that there will be unreasonable highway congestion, unsafe conditions and excessive use with respect to highways; and that, in addition to an undue adverse effect on the character of the area, the project will have an undue adverse on the scenic and natural beauty of the area.

## **The Project is Opposed by a Diverse Group of Halifax Voters and Property Owners**

1. The Project is an industrial schist quarry. The Project is opposed by a wide-range of Halifax voters and property owners. Many of these individuals are retirees who are home when the quarry is proposed to operate. Others work from their homes where peace and quiet is essential to their work. Collectively, they oppose the project because they will be adversely impacted by the quarry and quarry traffic's undue degradation of the character of the area, traffic safety, and the peace and quiet of the Conservation District.

2. Elizabeth Adams owns a farm on the proposed truck route at 5464 Jacksonville Stage Road. She adjoins the Denison tract.

3. Russell and Barbara Amato own a home on Josh Road. They adjoin the Denison tract.

4. Marilyn L. Allen and Arthur Ferland live at 7941 Jacksonville Stage Road. They routinely travel along the proposed truck route.

5. Margaret and Nicholas Bartenhagen live at 3658 Jacksonville Stage Road. Their property is 0.8 mile from the quarry site. They are abutters. They routinely travel along the proposed truck route.

6. Anthony Blackett lives at 826 Amidon Road, approximately 2 miles from the project to the south. He routinely travels the proposed truck route.

7. David B. Brown lives at 6654 Jacksonville Stage Road, one mile from the site. He routinely travels the proposed truck route.

8. Dr. Joyce Burland and Granville Sascha Burland live at 2077 Deer Park Road. They are abutters approximately 2,320 feet from the proposed quarry site.

9. Penfield Chester lives at 1255 Amidon Rd and is a farm owner. She routinely travels the proposed truck route.

10. William Cooper, 45 Metcalf Lane, lives one mile due north of the quarry site.

11. James Coughlin lives at 3453 Jacksonville Stage Road. He resides 1,500 feet from the quarry access road, and routinely travels the truck route.

12. Norman and Deborah Fajans live at 2505 Deer Park Road, approximately one-half mile from the quarry site.

13. Debra Brodie Foster has a home at 2378 Deer Park Road. Her property overlooks the proposed extraction site. Her residence is approximately 2,600 feet northwest of the proposed site.

14. Justina and Patrick Gregory own a home about a half mile from Stark Mountain Road and regularly travel Stark Mtn. Road.

15. Jan Ham has property which abuts the tract. His home on Jacksonville Stage Road is 12 feet from road on the truck route.

16. Michaela Harlow lives less than one-half mile from the extraction and excavation location at 2832 Deer Park Rd.

17. Mary Horne and Seth Geeslin live at 760 Old Stage Road. They are abutters to the tract and live about a mile from the site. They regularly travel the truck route.

18. Steven and Beverly Jackson have a home on Old Stage Road, one mile from the quarry site.

19. Susan Kelly lives at 557 Old Stage Road. She is an abutter to the tract and lives 1.1 mile from the quarry site. She regularly travels the truck route.

20. Judi R. Kotanchik has a house at 3874 Jacksonville Stage Road. Her house is 60 feet from the corner of Town Highway 52. She will constantly hear the proposed truck traffic, and employee traffic, and all equipment moving traffic, since her house is located right where the traffic leaves the Denison property.

21. Elizabeth Laona lives at 33 Josh Road, one-half mile from the quarry site.

22. Matt Maranian and Loretta Palazzo have a property at 169 Houghton Road which is approximately three-quarters of a mile from the quarry site.

23. Elizabeth Martin has a house at 7456 Jacksonville Stage Road, approximately 1.5 miles from site.

24. Matt Ollis and Gemma Ollis live at 3524 Deer Park Road. They are abutters whose property is approximately three-quarters of a mile north of the proposed quarry.

25. Melvin Osborne lives at 1690 Carpenter Hill Road. He is an abutter to the tract and resides approximately one-half mile due north of the site. His property is 30 feet higher in elevation than the quarry site.

26. Lesley Pollitt is at 1255 Amidon Road, about 3 miles from the site. She regularly travels the proposed truck route.

27. Donald Pyskacek and Barbara Shapiro have a home on the Guilford/Halifax town line. They regularly travel the truck route when they are at their home.

28. John Rossetti, at 5231 Jacksonville Stage Road, is an abutter who regularly drives the proposed truck route.

29. Stephen and Mariette Sanders, at 266 Sanders Road, live about 3 miles from the quarry site. Their only access to and from Sanders Road is via Stark Mountain Road, which they regularly travel.

30. Peter and Donna Silverberg own property at 7090 Jacksonville Stage Road. They are abutters located one-and-half miles from the proposed quarry. They will clearly hear the proposed quarry.

31. Bruce and Linda Swanson have a residence at 6036 Jacksonville Stage Road. Their residence is on the proposed truck route. They regularly drive Stark Mountain Road.

32. Janet Eldridge-Taylor and Paul B. Taylor live at 442 Josh Road. They are abutters, approximately one-half mile northeast of the proposed site.

33. Liam Wheeler, at 5156 Jacksonville Stage Road, lives less than two miles from the proposed quarry site. He regularly travels the proposed truck route.

**The Project will have an undue adverse effect on the character of the area**

34. The proposed quarry would be established near the center of a 5 square mile tract of undisturbed forest habitat located within the Conservation District.

35. The purpose of the Conservation District is to preserve undeveloped land for wildlife, forestry, recreation and other open space uses.

36. The Town Plan (page 21) does not allow any development in this district that would create significant noise or traffic.

37. The proposed quarry route passes through a quiet, very rural area that has no industry and contains only scattered dwellings and farms.

38. Several homes on the route are historically significant and more than 100 years old. The ground vibrations generated by passing trucks would have a negative impact on the windows and foundations of such homes.

39. All dwellings along the proposed route will be exposed to the noise and dust of heavy truck traffic.

40. Working farms have been and continue to be an essential part of the character of the quarry route area.

41. The other parts of the Conservation District surrounding the quarry are composed of unbroken forested tracts.

42. The sparse development allowed in the Conservation District includes homes and working spaces of abutting residents who have moved to the area for the peace and quiet of the environment.

43. Throughout the Conservation District the character of the area includes experiences of wildlife sightings and recreational uses of unfragmented forest that is an essential component of the aesthetics of the area.

44. The proposed Denison Lumber/Ashfield Stone Quarry Project does not comply with Halifax zoning conditional use standards and should be denied. It does not comply with the character of the area as described in the Town Plan and in the Conservation District designation.

**The Project's noise will have an undue adverse effect on the character of the area**

45. Resource Systems Group, Inc., did a Noise Impact Assessment for the proposed quarry site in April, 2014. (Exhibit 13 in the Conditional Use Permit application).

46. On September 4, 2013, RSG measured sound emissions from a rock drill (TEREX Reed Drill R20) powered by 100 kilowatt generator and a hand rock drill powered by a generator, similar to the type of equipment proposed to be used at the site. (Exhibit 13)

47. Modeling for the project was completed using the International Standards Organization ISO 9613-2 standard, "Acoustics – Attenuation of sound during propagation outdoors, Part 2: General Method of Calculation." (Exhibit 13)

48. RSG modeled the sound propagation in accordance with ISO 9613-2 with spectral ground attenuation and porous ground ( $G=1.0$ ) except for within the operational area where they modeled reflective ground ( $G=0$ ). (Exhibit 13)

49. The Town of Halifax has a quantitative noise standard that is applicable to this project. Section 405 of the Halifax Zoning Bylaws limits sound to 70 dBA at the individual property line. The General Performance Standards in this section state the following about noise:

The following conditions must not exist at the individual property lines:

Noise in excess of seventy (70) decibels.

50. The most common limit applied to this type of project is 55 dBA  $L_{fmax}$  at homes and areas of frequent human use. This is a precedent that was set by the Environmental Board and has generally been upheld by the Environmental Court. (Exhibit 13)

51. RSG modeled a worst-case scenario which involves the rock drill, hand drill with generator, an excavator and loader operating simultaneously within the extraction area at their maximum sound emissions and a haul truck exiting the site at the southern end of the access road. (Exhibit 13)

52. The Overall Sound Power Level of the TEREX Reed Drill R20 was 129 dBA ( $L_{Afm}$ ).

53. The Overall Sound Power Level for the Hand Rock Drill powered by the generator was 123 dBA (LAfmax).

54. Other equipment listed in various parts of the Noise Impact Assessment include: flatbed trucks on which large sections of rock will be loaded and hauled away from the site for processing at another facility, a bucket loader and an excavator.

55. LAfmax data was not available for the haul truck, excavator, and loader so a 5 dBA adjustment was added to the sound power to approximate the LAfmax sound power. (Exhibit 13)

56. In Appendix A – Modeling Information Table A2: Modeled Source Input Data (p. A1) lists the Sound Power Level (dBA) for the Excavator Model FHWA RCNM at 115 LAfmax. The Loader CAT966G at 117 LAfmax. (Exhibit 13)

57. The wire rock saw was not included in the original modeled test but was tested on January 27, 2015. The maximum Sound Power Levels from the rock saw are 111dBA LAfmax. (Exhibit 18)

58. In the Conclusions section of Exhibit 13 (p.18) RSG describes the nearest residence to the access road, which intersects TH 52 approximately 1 mile southeast of the extraction site, as approximately 1,160 feet to the east southeast of the southern terminus of the access road.

59. This is Judi Kotanchik's home at 3874 Jacksonville Stage Road. Her home is only 60 feet from TH52 where the transport trucks turn on and off Jacksonville Stage Road. (June 24, 2014)

60. Sound from the trucks passing homes on the actual truck route was not tested by RSG.

61. Eddie Duncan was the witness from RSG. Mr. Duncan testified on June 24, 2014 that the acoustic noise study was “charged with examining on-site not off-site noise but federal regulations limit a heavy truck manufactured after 1988 to noise emissions of 80 dBA at 50 feet.”

62. Jan Ham stated her cabin at 5161 Jacksonville Stage Road is only 12 feet from the edge of the roadbed so the sound would be louder at her residence. (June 24, 2014)

63. Bonny Hall testified “when trucks hit potholes on the dirt roads the truck bed bounces and it is a whole lot noisier.” (June 24, 2014)

64. Peter Silverberg testified the “trucks will be especially loud pulling uphill and when using engine brakes descending Stark Mt. Road.” (June 24, 2014)

65. In Appendix A – Modeling Information Table A2: Modeled Source Input Data (p. A1), A Heavy Truck Accelerating to 20 mph is 114 – 119 dBA LAfmax. (Exhibit 13)

66. Mr. Duncan gave the exact same presentation to the District #2 Environmental Commission. Mr. Duncan has not explained or even addressed the discrepancy between the proposed extraction of 144,348 cubic yards and the 482,430 cubic yards of earth removal which is shown on the reclamation plan. Mr. Duncan has not provided any analysis of the noise impacts of the removal of 482,430 cubic yards of earth material, or the noise impacts from the hauling and trucking of the 482,430 cubic yards of earth material.

67. As Mr. Blomberg testified at the Act 250 hearing, as heard by some of the Board members, it is impossible for RSG to accurately assess the project’s noise impact where Ashfield and Denison say the project is for the removal of 144,348 cubic yards but their reclamation plan shows removal of 482,430 cubic yards.

68. Peter Silverberg's presentation "Proposed Quarry Noise Concerns" raised several points regarding the RSG assessment. As Mr. Silverberg testified, tests were not performed at the highest elevation; the foliage parameter was turned on although in spring and fall there won't be any foliage on the trees; and not all equipment to be used was running during the test. In addition, the quarry walls will reflect and concentrate sound yet the reflection parameter was turned off, and sound will carry farther at higher elevations. (June 24, 2014)

69. Table A3 – Model Settings and Assumptions, p. A2, the Foliage Attenuation Parameter was turned on for "an 18 meter high forest." In the spring and the fall, there won't be any foliage, so this parameter should have been off which would give a higher value. (June 24, 2014)

70. Table A3 – Model Settings and Assumptions, p. A2, had the Parameter for Reflections turned off and listed no reflections. The sound will reflect off quarry walls and should have been turned on which would also give higher values in the model. (June 24, 2014)

71. The wire rock saw was not included in the original modeled test but was tested January 27, 2015. Maximum Sound Power Levels from the rock saw are 111dBA LAfmax. (Exhibit 18)

72. Using the LAfmax metric, the highest modeled sound level at a neighboring residence was 51 dBA which results from the existing grading model run. (Exhibit 13, Figure 8, Map of Sound Propagation Model Results with Existing Grading (dBA-Lfmax), and Section 8.

Conclusions)

73. This home belongs to Michaela Harlow, abutter, 2832 Deer Park Road, who heard the original sound test on September 4, 2013 inside her home 2,670 feet due north of the extraction site. "There were leaves on the trees, the wind was blowing, I was inside with the doors and windows closed and the noise was very loud." (June 24, 2014)

74. Michaela Harlow is an artist and landscape designer who has a studio/office at her home so the noise will be disruptive to her work and quality of life in Halifax. (June 24, 2014)

75. Matt Maranian and his wife, Loretta Palazzo, 169 Houghton Road, are some of the closest neighbors north of the proposed site. He is a writer and works in a studio on his property. “This will change the quality of our life.” (June 24, 2014)

76. The highest modeled sound level at a project property line was 70 dBA, with barriers around the rock drill and hand drill. (Property line of Joyce Burland, abutter, 2077 Deer Park Road just south of the extraction area.) (Exhibit 13)

77. Moveable barriers are problematic. They are indicative of insufficient setbacks or insufficient control measures. The problem is they have very limited effectiveness and need to be carefully placed as other equipment moves. It is a very active control measure that is very unlikely to be used properly. (Les Blomberg testimony, 3/6/15 and Act 250 Exhibit 81)

78. Joyce Burland and her husband Sascha “came here to live in a place where our community was interested in preservation. We are going to have offsite noise the entire 4 ½ months we are here each year.” (June 24, 2014)

79. Sascha Burland added that the noise would change their lives. (June 24, 2014)

80. Norman Fajans echoed the Burland’s sentiments. “All these sound studies are wonderful but they don’t address what we have now. If this project goes through, it will be constant unnatural noise and it will have an undue adverse effect on our lives.”

81. David Brown pointed out that “prolonged noise is experienced differently than sound of shorter duration.” (June 24, 2014)

82. Sue Kelly stated logging operations are temporary, but this is going to be constant (50 year permit) and to have this happen to us for the rest of our lives is an unfair burden for us. (June 24, 2015)

83. All of the errors and omission regarding noise presented to this Board are exactly the same as what was presented at the Act 250 hearing, as some of the Board members heard. These errors and omissions remain, notwithstanding that Ashfield and Denison have had substantial opportunity to provide new information.

84. The project will have an undue adverse effect on the character of the area due to noise impacts. In particular, the project's sounds will be clearly audible and will substantially degrade the quality of the character of the area in the Conservation District.

**The Project will cause a substantial decline in property values and result in lost tax revenue**

85. In *The Journal of Real Estate Finance and Economics* (2000 22: 185-202), Diane Hite and colleagues demonstrated that losses that result from decreased property values near an environmental "disamenity" can be close to 20%. They observed that in the long run, by lowering property values, the presence of a public disamenity in a community may therefore undermine the community's tax base.

86. A "disamenity" is defined by academics in the field of real estate studies as: The unpleasant quality or character of something, especially of a location, causing a disadvantage or drawback. In studies published in real estate literature, this term encompasses landfills, quarries, gravel pits, incinerators, power stations, etc.

87. In May 2000, G.S. Tolley, PhD, Professor Emeritus of Economics, University of Chicago, and RCF Economic and Financial Consulting, Inc. cites "a considerable body of

research” where the effects of disamenities, such as power plants and others, have been analyzed.

His analysis and conclusions:

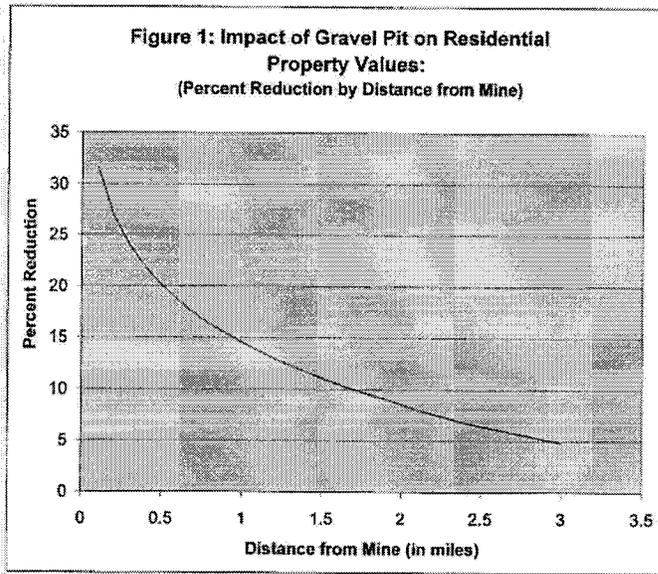
With respect to the impact on residential property sales, he states that "The studies leave no doubt that disamenities have substantial effects on residential property values." He added that, "There is a dynamic consideration to adding a disamenity to an area. A well-known tendency is that 'blight begets blight'.

If a disamenity is added *that is of little or no benefit to a community*. . . the bar will be lowered on what is considered an acceptable disamenity for future additions. The area of the disamenity is cast into a continuing downward cycle of increasing disamenity in the future.

An additional effect is that the area gets a reputation of being undesirable. People living away from the area, who are not directly affected by the disamenities, view the area as undesirable. The satisfaction of people living near disamenities is further decreased because they acquire the reputation among other people as living in an undesirable area.

It is well known that people have become increasingly concerned generally about environmental disamenities, which would make them less willing to pay as much for properties where there are disamenities.

88. Graphic display of data from a study conducted by Diane Hite, PhD, Economics, demonstrating that the percentage loss of property values following establishment of a disamenity (a gravel pit in a rural Ohio region) is proportionate to proximity of the home to the quarry:



89. There are more than 200 Halifax properties within 3 miles of the proposed industrial schist quarry. Applying the above modeling data to properties in Halifax, we can anticipate that if the Denison-Pratt Conditional Use Application were approved, the cumulative, permanent loss in property values in Halifax would be over 5.5 million dollars.

90. If the quarry application were approved, as discounted sales of homes within 3-miles of the quarry occur, each new owner could direct the town's listers to reduce their home's taxable fair market value to its sale price, a directive with which the listers legally must comply. As these property transfers occurred, Halifax's Grand List revenue base would steadily and irreversibly shrink.

91. The continuing decrease in the town's Grand List valuation would require a compensatory increase in the town's tax rate, thus impacting *all* Halifax residents, including all those living furthest away. In fact, due to the reduction in their fair market value ([3] and [4]

above), property tax payments for homes within 3 miles of the proposed quarry would be lower than comparable homes situated outside this perimeter.

92. The Project will cause a substantial decline in property values and result in lost tax revenue for Halifax. In addition to this tax loss, the Project would increase wear and tear to the roads cause an increase in road repair and maintenance expense. The combination of decreased revenue and increased expense would be detrimental to the welfare of Halifax. The project should be denied due to undue adverse impacts on safety and municipal expenses, as well as the capacity of existing and planned community facilities.

**The Project will have an undue adverse effect on traffic on roads and highways in the vicinity and traffic safety**

93. The neighbors presented the only qualified traffic safety and roadway expert. Mr. Michael Oman received a bachelor of science in civil engineering and political science from Massachusetts Institute of Technology in 1969 and a master of arts in urban and environmental policy from Tufts University in 1975.

94. Mr. is the principle of Oman Analytics in Underhill Center, Vermont since 1988. Mr. Oman provides transportation and community planning services, including traffic analysis with an emphasis on the linkage between transportation and land use. Mr. Oman is qualified as an expert witness on traffic and transportation matters and has testified before the Vermont Environmental Court, Vermont Environmental Board, and numerous Vermont District Environmental Commissions and local zoning and development review boards.

95. Mr. Oman presented two relevant principles of traffic and roadway safety: stopping sight distance and intersection sight distance.

96. Stopping sight distance (SSD) is the length of visible roadway necessary to allow a driver to stop before reaching a stationary object in the roadway, i.e., to avoid a collision. The driver needs a longer sight distance to avoid collision when the object is in motion toward the driver, e.g., an approaching car or truck.

97. Adequate SSD needs to be available at every point along the roadway. SSD is measured from 3.5 feet high (considered to be height of a driver's eyes) to an object 2 feet high, and is critical around corners and over hills. SSD is the distance necessary to stop a car traveling at the posted speed limit.

98. The speed limit on Jacksonville Stage, Amidon and Stark Mountain Roads is 35 MPH.

99. For a passenger vehicle traveling at 35 MPH, the SSD (the minimum distance needed at every point along the roadway) is 250 feet.

100. Intersection stopping distance (ISD) applies to a vehicle pulling out from a minor road onto a larger road and is the distance required for the driver of the vehicle pulling out of the minor road to see an approaching vehicle.

101. ISD is calculated differently from stopping sight distance. ISD is measured from a height of 3.5 feet (for a car) or 7 feet (for a truck) to an approaching object height of 3.5 feet.

102. Vermont roadways often curve, limiting intersection sight distances.

103. AASHTO identifies 3 cases from which the intersection sight distance is measured: Making a left turn from a minor road, making a right turn from a minor road, and crossing a major road.

104. Relevant to the present case is a loaded quarry truck attempting to make a right turn from TH 52 onto Jacksonville Stage Road. The required gap for a single-unit truck pulling onto

Jacksonville Stage Road from TH 52 is 8.5 seconds, in which time a passenger vehicle approaching TH 52 on Jacksonville Stage Road at 35 MPH would travel a distance of 440 feet. Hence, in this situation the required ISD is 440 feet.

105. The applicant represents that there is both an intersection sight distance and a stopping sight distance – an impossible situation – associated with the intersection of TH 52 and Jacksonville Stage Road of 305 feet.

106. The applicant represents that both the required ISD and the required SSD are 250 feet, which is not the case, as demonstrated above.

107. The available distance at the Class 4 road intersection is represented as 305 feet – considerably less than the required intersection sight distance of 440 feet.

108. At one location on Jacksonville Stage Road (a blind curve at the Smiths' barn), the stopping sight distance is 110-140 feet – less than the required 250 feet.

109. At one location on Stark Mountain Road, the stopping sight distance is 140-170 feet – less than the required 250 feet.

110. A traffic study by Windham Regional Commission in 2014 counted average daily traffic of 81 vehicles on Jacksonville Stage Road and 56 vehicles on Stark Mountain Road. The overwhelming majority of vehicles were passenger cars and light trucks.

111. Vermont State Design Standards call for a minimum of 18 ft. roadway width, not including shoulders, for rural roads with a traffic volume of 50-100 vehicles per day.

112. Portions of the proposed truck route on Jacksonville Stage Road are as little as 16 feet wide. Portions of the proposed truck route on Stark Mountain Road are as little as 13 feet wide.

113. At the Smiths' barn on Jacksonville Stage Road, there is a dangerous safety "trifecta": a blind curve (inadequate stopping sight distance), narrow road (16 ft.), and no lane markings, with the result that an oncoming truck or car could be anywhere on the roadway, not necessarily in the right hand lane.

114. Traffic warning signs can have minimal effectiveness and tend to be ignored after the passage of time. Thus, inadequate stopping sight distance and intersection stopping distance make the applicant's proposed haul route unsafe for significant heavy truck traffic.

115. In terms of roadway damage, one loaded (69,000 lb.) tri-axle truck has an ESAL (equivalent single axle loading) impact comparable to 10,204 passenger cars.

116. In terms of roadway damage, one empty (29,000 lb.) tandem-axle truck (i.e., a tri-axle with one axle lifted) has an ESAL impact comparable to 904 passenger cars.

117. Round trips by a tri-axle truck, loaded in one direction and returning over the same roads empty (with the lift axle raised) would average an ESAL impact comparable to 11,108 passenger cars traveling the same roads.

118. Factoring the above increase in road usage into existing costs of road maintenance, the proposed Project truck traffic would increase road maintenance costs by \$93,968 per year, as estimated by Mr. Oman.

119. The applicant represents a town dump truck as being similar to what he would use to haul stone. If so, the quarry truck would be a tandem axle and not a tri-axle vehicle. The loaded truck would have an ESAL impact comparable to 35,172 passenger cars and the round trip ESAL impact would be comparable to 36,076 passenger cars.

120. A tandem axle truck would therefore cause more than triple the road damage of a tri-axle truck, and road maintenance costs would be increased commensurably.

121. These maintenance costs do not include establishing and maintaining adequate culvert cover, replacing culverts damaged by traffic, or making geometric repairs to mitigate the safety issues noted above.

122. Culverts are a critical part of roadway structure and require 12” to 15” of gravel cover to distribute the load of passing vehicles. Heavy trucks will crush culverts with inadequate cover, while passenger vehicles will not.

123. The applicant states there will be two 20-ton loads per day, five days per week, 33 weeks per year for 50 years. If the applicant abides by this statement, the maximum volume of schist that could be removed would be 144,348 cubic yards of stone.

124. However, in Schedule A of the applicant’s Act 250 application for the same project as is before the ZBA in this proceeding, the applicant states he will remove 246,000 cubic yards of stone.

125. Furthermore, calculating the volume of stone to be removed on the basis of the applicant’s Reclamation Plan indicates that 482,430 cubic yards of stone are to be trucked from the site. Removing this much stone over the 50-year permit period would require 6.7 truck loads per day, more than tripling wear and tear on the roads traveled.

126. The Halifax Town Plan, p. 52, Halifax Transportation Policies, “Require[s] that the town’s roads network provide convenience and service commensurate with need, while respecting the integrity of the natural environment and maintaining the rural character of Halifax.” The Town Plan “Require[s] that new development not result in an undue financial

burden on the Town by necessitating highway expenditures which are in excess of those anticipated with the budget for roads, bridges and equipment.” The Project fails to comply with these town plan provisions.

127. Stephen Sanders (whose driveway is on Stark Mountain Road) described hazardous conditions when meeting an oncoming vehicle on Stark Mountain Road.

128. Mariette Sanders (whose driveway is on Stark Mountain Road) noted that people unfamiliar with Stark Mountain Road might not realize they need to pull over when there is an oncoming truck.

129. Susan Kelly noted that the fact that Stark Mountain Road is already somewhat dangerous does not mean the applicant is allowed to make it more dangerous; Vermont case law has established this principle.

130. Bonny Hall commented that the road crew is “always playing catch-up” and asked where the money would come from for additional road repairs.

131. Justina Gregory expressed concern about damage to Halifax roads, noting that increased repairs and maintenance, and possibly reconfiguration, would be required if the quarry were approved.

132. Milton Bickle commented that the rear tires of tandem trucks exert lateral forces when the truck is turning, and these forces are so strong that they tear up asphalt. Michael Oman affirmed that this phenomenon, called “off-tracking,” does occur and contributes to road damage by tandem trucks.

133. Peter Silverberg observed that while the quarry truck might resemble a Halifax Highway Department truck (according to the application), Halifax trucks are on the roads in order to improve the roads, while quarry trucks would only damage them.

134. Elizabeth Laona echoed this in stating that town trucks, school busses and fire trucks are heavy but necessary for the citizens of Halifax, while the quarry trucks are not.

135. Matt Maranian noted that in testimony before the Act 250 Commission, the selectboard stated the town does not have the financial resources to upgrade the roads of the proposed truck route.

136. The Project would have an undue adverse effect on traffic on roads and highways in the vicinity, and on traffic safety.

**The project should be denied due to its impact on local water wells and waterways**

137. On July 14, 2015 the hearing focused on ground water and aquifer concerns from a list of unanswered questions the ZBA submitted to the applicants.

138. Question 23 – “Is there any information about whether the schist quarry will have an impact on ground water/aquifer water quality?”

139. The Halifax Town Zoning Regulations: Section 501, Earth and Mineral Extraction, #2: “The operation will not cause an unreasonable burden on an existing water supply if one is to be used, nor have an adverse impact on the quality or quantity of neighboring water supplies.”

140. Norman Fajans testified that his well is located approximately at the same elevation as the excavation activity for the proposed quarry. His well is 75 feet deep with a static level at 35 feet and produces 13 gallons of water per minute which was verified 2 years ago when he replaced the well.

141. Mr. Fajans is concerned that when the quarry strips away bedrock, they could strike the aquifer where his water source is located. The applicants have not ascertained where the aquifer is located. (July 14, 2015)

142. Deb Foster testified that her well is the closest to the proposed extraction site. Ms. Foster's concern is that there has been no actual onsite testing of the depth to ground water and to the composition of soils specifically under the retention pond. This concern arises because the application refers to the depth of neighbors' wells that have been dug around the site to estimate the depth to groundwater on this site. These depths were averaged to be 30' deep. But Ms. Foster's well, which is the closest to the quarry, is 300 feet deep and 200 feet under the depth of the retention pond. (September 8, 2015)

143. Jim Coughlin voiced his concern about water from the retention pond leaching into his stream from a stream at the quarry site. (July 14, 2015)

144. The applicants' expert, Tyler Gingras of VHB, was unable to answer basic questions posed by witnesses and the ZBA. Mr. Gingras was evasive and appeared to be withholding information.

145. Although Mr. Gingras testified that all state permits were in place, the applicants admitted that this was not true. In fact, the applicants have applied for an individual discharge permit. The applicants were asked to explain why, and to share their correspondence with the ANR regarding this issue, but neither Mr. Gingras nor the applicants have provided this information to the ZBA, even though it was in their possession prior to the September 8, 2015 hearing.

146. With respect to how the applicants will manage iron rich water, all the applicants could offer is that there is a restriction in the multisector permit. But the applicants could not explain how the standard will be complied with. This amounts to no answer at all to the question.

147. Janet Eldridge-Taylor testified that when she was a lister in Halifax, a common complaint she heard from residents was sulfur affecting their water supply making the water undrinkable. (September 8, 2014)

148. Ultimately, VHB offered a response to Board member McNeice's initial query on July 14, 2015 regarding iron rich water which was that VHB has not experienced this issue with respect other quarries, but VHB did not provide any testing with respect to *this* proposed quarry. VHB also did not provide any evidence to support that its comparison with other locations is valid in terms of geology, soil conditions, water supplies, and topography.

149. VHB did not provide any test evidence on July 28th or September 8th to the ZBA and to neighbors to meet the applicants' burden of proof that will not be an adverse impact on the quality or quantity of neighboring water supplies.

150. The failure by the applicants to meet their burden of proof is important. David Brown testified: "The peace of mind of living in an area where you turn on the water faucet not for a second do you have to wonder whether or not it might be unsafe because there simply is no upstream industry present that could have polluted it, is priceless." (David Brown testimony, July 14, 2015).

**The Applicants have not met their burden of proof with respect to wildlife**

151. Habitat fragmentation occurs when undisturbed blocks of land are divided by roads, structures, vegetation alteration, or human activity.

152. In the State of Vermont, Necessary Habitat is defined as that habitat which is identifiable and is demonstrated as being decisive to the survival of a species of wildlife at any period in its life including breeding and migratory periods.

153. Deer wintering area meets the definition of Necessary Habitat. According to VHB, the deer wintering area impacts include (1) direct road impact = 1.55 acres; (2) direct quarry site impact = .17 acre; and (3) indirect impact (within 300 feet of road of quarry) = 11.2 acres.

154. Bear wetland meets the definition of Necessary Habitat. State biologist Forrest Hammond reported that “Bears frequent core habitats remote from roads, human development and people. Wetlands used by bear are unique and impacts from development are not readily mitigated or compensated.”

155. VHB noted a large mapped wetland just east of the proposed site and labeled it a potential bear wetland. Roads, structures and human activity negatively impact large wildlife at distances ranging as far as a half mile, depending on the nature and intensity of the disturbance. According to VHB, (1) the quarry road will pass within 220 feet of potential bear wetland, and (2) the quarry will be within 130 feet of potential bear wetland. The only VHB Inc. mention of mitigation measures for minimization of impact is “No Blasting”.

156. VHB and the applicants failed to offer evidence regarding the significant impacts due to human presence and the operation of large equipment including generators, rock drills, rock saw, compressors, loaders or trucks.

157. Deer Park Brook and the Green River are relatively pristine drainages supporting strong populations of trout and various invertebrates. Weather events such as occurred during Tropical

Storm Irene would overwhelm proposed settlement ponds and wash significant volumes of sediment and pollutants throughout the system.

158. According to Windham Regional Planning Commission's recently released Forest Stewardship Report, Halifax has the highest amount of acreage in the Windham Region classified as having "high forest stewardship potential". The proposed quarry sits at the center of a five square mile tract of undisturbed forest habitat. Fragmentation of this tract is not consistent with the goals of the Commission's Forest Stewardship Project. (The Forest Stewardship Project Report, [www.windhamregional.org/forestry](http://www.windhamregional.org/forestry))

159. The project's adverse impact on forest integrity and wildlife in the Conservation District will contribute to the project's undue adverse effect on the character of the area. The applicants do not meet their burden of proof due to adverse forest fragmentation and wildlife degradation impacts.

**The Conservation District under the Halifax Town Plan is a specifically stated policy with specifically stated standards which prohibit the project**

160. The Halifax Town Plan designates the Conservation District. The project is proposed for the Conservation District. The Conservation District is properly stated and complies with *Village of Euclid v. Ambler Realty Company*, 272 U.S. 365, 47 S.Ct. 114, 71 L.Ed. 303 (1926). *Euclid*.

161. Under Section 203(3)(a) of the Zoning Regulations, the ZBA uses the Halifax Town Plan as part of the conditional use character of the area analysis: "the character of the area affected, as defined by the purpose or purposes of the zoning district within which the project is located and specifically stated policies and standards of the municipal plan;"

162. The purpose of the Conservation District at Section 308 of the Zoning Regulations is:

The purpose of the Conservation District is to protect the natural resource value of lands that are essentially undeveloped, are important upland wildlife habitat or corridors, particularly for large game animals such as deer and bear, or have high forestry value, are unsuitable for land development, or include irreplaceable, limited or significant natural, recreational, or scenic resources.

163. The Halifax Town Plan states the following with respect to the Conservation District:

The Conservation District shall be used for agriculture, forestry, open space conservation, strict resource management, recreation, hunting and residential one/two-family dwellings, which may, where approved, be in the form of carefully and strictly controlled planned residential development retaining the requisite preserved open space and density of the district.

164. The ZBA is authorized to independently decide whether the aforementioned portion from the Halifax Town Plan applies for purposes of the analysis under Section 203 of the Zoning Regulations with respect to “specifically stated policies and standards of the municipal plan.

165. The ZBA may rely on its experience from the Halifax Planning Commission in evaluating the meaning and specificity of the word “shall” as used in the sentence “The Conservation District *shall* be used . . .”

166. The ZBA also may rely on its experience from the Halifax Planning Commission in evaluating whether the project constitutes “strict resource management.”

167. The applicants’ Conditional Use Statement of June 19, 2015 (Supplemental Memorandum Concerning Proposed Quarry Project), Exhibit 22, argues that “the project is consistent with the conservation district purpose in a number of respects” is contrary to the specifically stated policies and standards set forth in the Conservation District provision of the Halifax Town Plan. The applicants latch on to random paragraphs containing the words “earth

extraction” to assert compliance with the town plan, or that the town plan is “encouraging” mineral extraction.

168. With respect to the Conservation District, the Town Plan is specific and unambiguous on what is allowed and, therefore, what is not allowed. On page 22 it states that “conservation zone shall be used for agriculture, forestry, open space conservation, strict resource management, recreation, hunting [and limited residential development].” The ZBA is sufficiently familiar with the Halifax Town Plan to evaluate the applicants’ claim that this sentence authorized the quarry project.

169. The ZBA should also note that the applicants have mischaracterized the purpose of the Conservation District. The applicants wrote that the purpose of the conservation district is to protect land that is essentially “underdeveloped.” In fact this quote should read “*undeveloped*,” that is, the “The purpose of the Conservation District is to protect the natural resource value of lands that are essentially *undeveloped*; . . .” The applicants’ three letter error is significant because it introduces a notion of “underdevelopment” that is not part of the Conservation District.

170. The applicants also claim that the schist mine proposal is consistent with Town Goal #8, set forth under the general “STATEMENT OF GOALS,” that reads: “To Encourage environmental awareness by protecting the community’s natural resources including its air, water, wildlife habitat and land resources.” The ZBA is authorized to independently decide whether the applicants’ construction of the meaning of Town Goal #8 is accurate or not. The ZBA may rely on its experience from the Halifax Planning Commission in evaluating the applicants’ interpretation of Town Goal #8.

171. The applicants next claim consistency with Town Goal # 10 that reads: “To encourage the continued availability and good management of lands for agriculture, forestry, and earth/mineral extraction.” The applicants claim: “The Project is consistent with Goal 10 in that it is earth/ mineral extraction. A specific goal of the Town Plan is to encourage earth/mineral extraction.” The ZBA is authorized to independently decide whether the applicants’ construction of the meaning of Town Goal #10 is accurate or not. The ZBA may rely on its experience from the Halifax Planning Commission in evaluating the applicants’ interpretation of Town Goal #10.

172. Finally the applicants quote the following Land Use Policies from the town plan and claim the project is authorized or encourage in accordance with this policy:

6. Encourage the use of innovative land saving techniques such as cluster development, planned unit developments, and fixed area density allocation to protect agriculture, forest, and mineral resource lands from development and fragmentation.

173. The ZBA is authorized to independently decide whether the applicants’ construction of the meaning of Land Use Policies 6 is accurate or not. The ZBA may rely on its experience from the Halifax Planning Commission in evaluating the applicants’ interpretation of Land Use Policies 6.

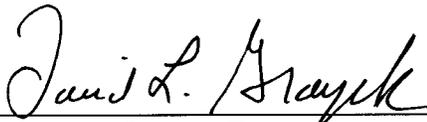
174. The project fails to comply with the conditional use review character of the area analysis as defined by the purpose or purposes of the zoning district within which the project is located, and specifically stated policies and standards of the municipal plan.

## CONCLUSION

Susan M. Kelly individually, and as the designated representative of the voters and/or owners of real property who have petitioned for interested person status under 24 V.S.A. § 4465(b)(4), request that the project be denied for failing to comply with the standards at Sections 203 and 501 of the Zoning Regulations, due to the applicants' failure to meet their burden of proof. Since there are no conditions which could mitigate the project's failure to comply with the standards, the project must be denied.

Dated this 22<sup>nd</sup> day of September, 2015.

SUSAN M. KELLY INDIVIDUALLY AND AS THE  
DESIGNATED REPRESENTATIVE OF THE VOTERS  
OR OWNERS OF REAL PROPERTY OWNERS WHO  
HAVE PETITIONED FOR INTERESTED PERSON  
STATUS UNDER 24 V.S.A. § 4465(B)(4).

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