

VERMONT ENVIRONMENTAL BOARD
10 V.S.A. Ch. 151

*Re: Hannaford Brothers Co. and
Southland Enterprises, Inc.*
Docket #791

Land Use Permit Amendment
#4C0238-5-EB

Findings of Fact, Conclusions of Law, and Order (Altered)

This proceeding concerns an appeal to the Environmental Board (Board) by Lisa Yankowski, David Wilber, Sheldon Katz, Wendy Copp and John Hodgson (Appellants) from Land Use Permit #4C0238-5 (Commission Permit) issued by the District 4 Environmental Commission (Commission) to Hannaford Brothers Company and Southland Enterprises, Inc. (Permittees) and a cross-appeal by Permittees of certain Conditions imposed in the Commission Permit.

In this decision, the Board grants Land Use Permit #4C0238-5-EB (Altered) with limits on the noise that may be generated by the operations of the Permittees' proposed Lowe's Home Improvement Center (Lowe's). The Board further determines that the exterior signs to be installed on the Lowe's building may not be internally illuminated.

I. Procedural History

On June 18, 2001, the Commission issued the Commission Permit and supporting Findings of Fact, Conclusions of Law, and Order (Commission Decision) to Permittees. The Permit authorizes the construction of a Lowe's, including the relocation and enlargement of previously approved building C; the addition of an outdoor garden center; the elimination of previously approved Building B; parking changes and other site changes from the previously approved plan, all on a site off Shelburne Road in the City of South Burlington, Vermont (Project).

On July 17, 2001, Appellants filed an appeal with the Board from the Commission Permit and Decision alleging that the Commission erred in its conclusions concerning nuisance noise and aesthetics under 10 V.S.A. §6086(a)(8) (Criterion 8).

On July 30, 2001, Permittee Hannaford Brothers Co. (Hannaford) filed a cross-appeal of five Conditions in the Commission Permit.

On August 27, 2001, Board Chair Marcy Harding convened a Prehearing Conference with the following participants:

Hannaford by William W. Schroeder, Esq.
Southland Enterprises, Inc. (Southland) by David White
Appellants by Samantha W. Foxen, Esq.

At all stages of this appeal, William W. Schroeder, Esq. represented Hannaford, David White appeared for Southland, and David L. Grayck, Esq. represented the Appellants.

The Board held a site visit and a hearing in this matter on December 5, 2001. The Board heard sound demonstrations at the site and held a second hearing on January 23, 2002.

The Board deliberated on December 5, 2001, and on January 23, and March 6 and 20, 2002. On April 9, 2002, following completion of its review of the proposed findings of fact and conclusions of law, related argument, testimony and the record, the Board declared the record complete and adjourned.

On April 9, 2002, the Board issued Land Use Permit Amendment #4C0238-5-EB (Board Permit) and supporting Findings of Fact, Conclusions of Law, and Order (Board Decision). The Board Permit modified certain Conditions imposed in the Commission Permit addressing noise impacts from the operation of the Project.

On May 9, 2002, pursuant to Board Rule 31(A), Hannaford filed a Motion to Alter the Board Permit. The Appellants filed an Objection to the Applicant's Motion to Alter on May 23, 2002. On July 2, 2002, the Board issued a Memorandum of Decision, denying Hannaford's Motion to Alter.

Hannaford filed a Notice of Appeal to the Vermont Supreme Court on August 1, 2002. *In re Hannaford Bros. Co. and Southland Enterprises, Inc.*, Docket No. 2002-351. The Vermont Attorney General appeared in the Supreme Court appeal on behalf of the State of Vermont. On November 4, 2002, the Attorney General and Hannaford stipulated to a Remand to the Board for adoption of a revised Board Permit. On November 15, 2002, the Supreme Court issued an Entry Order remanding the matter to the Board.

Based on proposed revisions to the Findings of Fact, Conclusions of Law and the Land Use Permit Amendment presented by the Attorney General and the Permittees, the Board deliberated on November 20, 2002.

On November 25, 2002, the Attorney General and the Permittees filed with the Board a Stipulation for Issuance of a Revised Permit with the Board (Stipulation), including revised Findings of Fact, Conclusions of Law and a revised Land Use Permit Amendment. These revisions are identical to those considered by the Board on November 20, 2002.

This matter is now ready for a final decision.

II. Issue

As set out in the Prehearing Order, the Issue in this matter is:

Whether the Project complies with 10 V.S.A. §6086(a)(8) (aesthetics) with respect to noise and signage.

III. Findings of Fact

To the extent any proposed Findings of Fact and Conclusions of Law are included below, they are granted; otherwise, they are denied. See, *Secretary, Agency of Natural Resources v. Upper Valley Regional Landfill Corp.*, 167 Vt. 228, 241-242 (1997).

A. Background

1. Permittees have applied for a permit amendment for the construction of a Lowe's store in the previously permitted Southland development in South Burlington, Vermont.
2. Southland owns a 41.86-acre site fronting on the west side of Shelburne Road / Route 7 in the City of South Burlington (Southland Tract). Southland leases the tract to Hannaford under a long-term ground lease.
3. The Commission issued Land Use Permit Amendment #4C0238-4 to Southland on March 22, 1995, approving a mixed use commercial development containing 260,046 square feet of commercial retail space in multiple buildings including a supermarket, other retail stores, restaurant(s) and a bank, plus a 95 room hotel, together with up to 1,401 new parking spaces, approximately 2110 feet of on-site roads, and other associated infrastructure, amenities, utilities and off-site road improvements.
4. Three subsequent permit amendments, #4C0238-4A, -4B and -4C, not relevant to the issue presented by this appeal, were issued to Southland.
5. The Permittees have completed the first two phases of development on the Southland Tract. The first phase consisted of the construction of a 46,500 square foot Hannaford supermarket, with associated site improvements and most of the infrastructure for the entire development. The second phase included the construction of a Chittenden Bank branch building on Shelburne Road, with associated site improvements.
6. Land Use Permit Amendment #4C0238-4 has approved Buildings B through I of the Southland development, the future expansion of the Hannaford supermarket, and associated site improvements. This phase has not yet been constructed.

7. The Permittees seek to amend their existing permits to (a) relocate and enlarge Building C (the site of the proposed Lowe's building); (b) add an attached outdoor fenced garden center to Building C; (c) eliminate Building B; and (d) reconfigure certain parking lots and other site improvements.

8. In accordance with the Stipulation, the proposed Project would also include construction of sound fences ranging between 10 and 20 feet in height, along the south and west sides of the Project site.¹

B. Project Context in General

9. The Southland Tract is a tract of commercially zoned land located on the west side of Shelburne Road / Route 7, within one-half mile south of the intersection of Route 7 and Interstate 189.

10. In the vicinity of the entrance to the Project, Route 7 has the attributes of commercial strip development, with shopping centers, smaller retail businesses, gas stations, restaurants, convenience stores, motels, banks and car dealerships. None of these other businesses, however, is of a size or noise profile character similar to the proposed Project.

11. The commercial Route 7 corridor extends to the north and south of the Southland Tract and to the east in the strip across Shelburne Road. There is no commercial development directly to the west of the Southland Tract.

12. Located approximately one-quarter mile west of the Southland Tract (and, in particular, the site of proposed Lowe's) is Queen City Park, a small residential neighborhood where bungalows and cottages have been converted into year-round homes. The Vermont Railway tracks, an undeveloped area of ravines, the Potash Brook, and woods separate the Southland Tract from the residences in Queen City Park.

13. There is some commercial development immediately to the north of Queen City Park. A residential apartment complex is located immediately to the south of the site of the proposed Lowe's building, between the Vermont Railway tracks and the commercial Route 7 corridor (South Apartments).

14. The character of the area around the Southland Tract has not changed since the original approval of the Southland Project.

¹ The location and design of these sound fences appear on Exhibits H34 and H35, which the Board admits into the record in this appeal.

C. Noise Context

15. Route 7 carries a high volume of motor vehicle traffic on a 24-hour basis.
16. Queen City Park Road and Industrial Avenue serve as the main access loop for the Chittenden County Transit Authority bus depot.
17. Commuter and freight trains pass by on the railroad track between the Southland Tract and Queen City Park several times daily.
18. Commercial uses (not associated with the Southland development) near the Southland Tract generate noise from vehicles and from heating, air conditioning and ventilating (HVAC) equipment.
19. The Hannaford supermarket, the closest building to the site of the proposed Lowe's site, generates noise from rooftop-mounted HVAC units, tractor trailer deliveries to loading docks on the north side of the building (which, as such, do not cause much disturbance to the Queen City Park neighborhood), and 24-hour car and truck traffic. The K-Mart shopping center, located to the north of the Southland Tract and closer to Route 7, has similar facilities, but its impacts on Queen City Park are lessened by the intervening Hannaford supermarket building.
20. Sounds typically present in Queen City Park are those typical to a residential neighborhood: children playing, people walking and talking, cars, and the occasional truck. These sounds occur during the normal daylight hours beginning around 7:30 or 8:00 a.m. By 8:00 p.m., the neighborhood is usually quiet except for the occasional car.
21. Noise from traffic on Route 7 - the usual roll of tires on the road, the squealing of brakes, accelerating engines, and, occasionally, sirens - and from nearby commercial businesses is audible in Queen City Park. Because of the relatively low volume and the mix of these sounds, Route 7 noise does not interfere with the use and enjoyment of homes in Queen City Park. Rarely are there sudden or on-going bursts of loud, instantaneous, high frequency noise coming from Route 7.
22. Some traffic noise from Central Avenue, the main road serving the Queen City Park neighborhood, and noise from passenger and commuter trains passing by on the railroad track, is also audible in Queen City Park.

D. Project Noise Generation

23. The Project will generate noise from delivery trucks, forklifts loading and unloading material, backup beeper alarms from forklifts and delivery trucks, HVAC equipment, a trash compactor, an emergency generator, and an outdoor public address system.

24. Operating hours at a typical Lowe's run from approximately 6:00 a.m. to 10:00 p.m., although the hours vary from store to store depending on market demand. Additional loading and stocking activities by employees and suppliers may continue before and after hours.

25. The proposed Lowe's intends to operate from 5:00 a.m. to 10:00 p.m. Early morning operations will include accepting deliveries and loading product onto the trucks of independent contractors which they need for their work that day.

1. Truck deliveries

26. Lowe's stores receive product deliveries by tractor-trailer and smaller trucks, some operated by Lowe's and some operated by manufacturers or independent haulers. Lowe's delivers building materials and other large items to customers with its own small and medium trucks.

27. The west side of the proposed Lowe's building faces Queen City Park. The south side of the proposed Lowe's building faces the South Apartments.

28. Deliveries to the proposed Lowe's site will be received at three locations: (i) a truck loading dock at the northwest corner of the proposed Lowe's building, (ii) the area outside the gates at the rear of the garden center on the north side of the building, and (iii) the area outside the gates at the rear of the materials handling and storage area at the southwest corner of the building. Lowe's will also load deliveries to customers at these locations. The rear service drive along the west side of the building will provide access to all of these delivery areas.

29. Approximately three-quarters of deliveries to Lowe's will occur at the loading dock, where trucks will be sealed to the dock and all unloading activities will take place in an enclosed environment. The balance of the deliveries to Lowe's will occur along the rear service drive.

30. The outdoor materials handling and storage area will be bounded by a chain link fence with gates on the west side, by a sound fence on the south side, and by the building on the east and north sides. The garden center will be bounded by a concrete block wall with chain link fence gates on the west side, by the building on the south side, and by a chain link fence on the east and north side.

31. Deliveries to a typical Lowe's average approximately eight trucks between 5:00 a.m. and 7:00 a.m., and approximately two trucks between 8:00 p.m. and 10:00 p.m.

2. Forklifts

32. Lowe's will use forklifts to move off-loaded materials from the rear service drive to the materials handling and storage area and the garden center, and to load customer

delivery trucks with materials from the store and from the materials handling and storage area.

33. The forklifts will have back-up alarms that will operate in a range between 77 and 97 decibels measured at a distance of four feet from the source. These alarms will be set at five decibels above ambient noise.

34. The Occupational Health and Safety Administration (OSHA) does not require back-up alarms on forklifts at retail operations such as the proposed Lowe's. Rather, OSHA only requires the alarms at construction and manufacturing sites where the ambient background is apt to be louder and the attention of the personnel more focused on their duties.

35. Lowe's has chosen to use back-up alarms for safety purposes.

36. Backup beeper alarms are intended to be piercing and certain to catch the attention of anyone close by.

37. As they carry out their intended purpose, backup beeper alarms are annoying

3. HVAC

38. The HVAC equipment for the Project will consist of approximately 22 roof-mounted units, Lennox Model LHA240H or equivalent, with exhaust directed upwards.

4. Trash Compactor, generator and outdoor PA system

39. The Project will have an enclosed trash compactor located near the loading dock that would be loaded both from inside the building and from an exterior hopper. There will be a diesel-powered emergency generator that is tested occasionally, and an outdoor public address system.

E. Sound Level Measurements

40. Sound loudness or amplitude is measured on a logarithmic scale in units called decibels, represented by the symbol "dB."

41. An increase in noise of 3 dB is barely noticeable to an average person; noise must increase about 5 dB before the increase becomes noticeable.

42. Sound frequency or tone is measured in cycles per second or Hertz, represented by the symbol "Hz."

43. Sound level meters typically employed in community noise monitoring are equipped to determine an overall decibel level for sound composed of broad range of frequencies, giving different weight to different frequencies. The A-weighted scale on a

sound meter, represented by the symbol “dB(A),” emphasizes sound detectable by humans.

44. The equivalent sound level, represented by the symbol “Leq,” is a logarithmic average of sound levels due to all noise sources in a given area over a designated period of time (e.g., one hour, one day, etc.). The Leq tends to weight the higher decibel levels.

45. The L10, L50, and L90 are the 10th, 50th, and 90th percentile sound levels. The L10 represents the sound level exceeded 10 percent of the time, the L50 is the median level, and the L90 is the level exceeded 90 percent of the time. Since the L90 represents the quieter portion of a measurement period (90% of the observations exceed it), it is often considered the “background” level.

46. The generally accepted practice in community noise monitoring is to compare project-generated noise levels to background sound levels.

47. Background (L90) sound levels measured in and around the Queen City Park neighborhood by Hannaford's sound expert ranged between 38 dB(A) (nighttime) and 46 dB(A) (daytime).

48. At an outdoor location near the railroad track, approximately 250 feet east of the Copp/Hogdson residence, sound levels ranged between 38 dB(A) in the middle of the night and 44 dB(A) during late afternoon and the morning. The maximum sound levels measured at this location ranged between 85 dB(A) and 99 dB(A) as passenger and commuter trains passed by. Maximum sound levels at this location when trains were not present ranged between 48 dB(A) and 66 dB(A).

49. Lmax and Lmin are the maximum and minimum sound levels measured during a designated period of time. Since sound level meters typically record sound levels in one-second intervals, the Lmax represented the loudest second of sound during any designated period, and the Lmin represented the quietest second of sound during any designated period.

50. Impulsive noises and/or noises with narrowband or discreet frequency tonal content can be more annoying at comparatively lower volumes than broadband (low frequency) steady state noises.

F. Predicted Project Noise

51. Noise from the operation of the proposed Lowe's store will reach Queen City Park.

52. The Permittees' models predict the following noise levels at certain receptors in Queen City Park, with a sound barrier in place to the west of the proposed Lowe's building:

Maximum Noise Levels for Various Individual Sources and With Barrier

SOURCE	RECEPTOR 1 11 Maple Ave. (dBA)	RECEPTOR 2 23 Central Ave. (dBA)	RECEPTOR 3 54 Central Ave. (dBA)	RECEPTOR 4 90 Central Ave. (dBA)
PA speaker	28	27	29	25
Outdoor phone	40	38	40	37
Compactor being loaded	25	27	30	32
Compactor running	25	25	28	31
Forklift	23	23	24	26
Forklift with backup alarm	20	19	20	22
Forklift loading compactor	40	39	40	42
Generator	37	36	37	39
Van	21	19	20	21
Box truck with backup alarm	18	17	16	17
Tractor trailer with backup alarm	36	40	36	36
Loading dock activity	17	16	16	16
Bang from loading	53	51	52	53
HVAC	23	21	21	22

53. Thus, the maximum noise levels (Lmax) outside certain residences (11 Maple Avenue and 25, 54 and 90 Central Avenue) in Queen City Park projected by the Permittees' models from various sources from the Lowe's store with a ten-foot sound barrier in place are: heavy delivery trucks: 45 dB(A); medium delivery trucks: 36 dB(A); PA Speaker: 29 dB(A); outdoor phone: 40 dB(A); compactor being loaded: 32 dB(A); compactor running: 31 dB(A); forklift: 26 dB(A); forklift with back alarm: 22 dB(A); forklift loading compactor: 42 dB(A); generator: 39 dB(A); van: 21 dB(A); box truck with backup alarm: 18 dB(A); tractor trailer with backup alarm: 40 dB(A); loading dock activity 17 dB(A); bang from loading: 53 dB(A); and HVAC: 23 dB(A).

54. The Permittees' models predict the following noise levels at certain receptors in Queen City Park, without a sound barrier in place to the west of the proposed Lowe's building:

Maximum Noise Levels for Various Individual Sources and No Barrier

SOURCE	RECEPTOR 1 11 Maple Ave. (dBA)	RECEPTOR 2 23 Central Ave. (dBA)	RECEPTOR 3 54 Central Ave. (dBA)	RECEPTOR 4 90 Central Ave. (dBA)
PA speaker	28	27	29	30
Outdoor phone	40	38	40	41
Compactor being loaded	28	30	36	38
Compactor running	26	28	35	36
Forklift	32	31	29	31
Forklift with backup alarm	31	30	27	29
Forklift loading compactor	47	46	43	45
Generator	42	41	43	45
Van	32	31	28	34
Box truck with backup alarm	28	26	23	24
Tractor trailer with backup alarm	41	40	41	42
Loading dock activity	24	23	24	25
Bang from loading	58	57	58	59
HVAC	23	21	21	22

55. Thus, the maximum noise levels (Lmax) outside certain residences (11 Maple Avenue and 25, 54 and 90 Central Avenue) in Queen City Park projected by the Permittees' models from various sources from the Lowe's store *without* a sound barrier in place are: heavy delivery trucks: 49 dB(A); medium delivery trucks: 40 dB(A); PA speaker: 30 dB(A); outdoor phone: 41 dB(A); compactor being loaded: 38 dB(A); compactor running: 36 dB(A); forklift: 32 dB(A); forklift with back alarm: 31 dB(A); forklift loading compactor: 47 dB(A); generator: 45 dB(A); van: 34 dB(A); box truck with backup alarm: 28 dB(A); tractor trailer with backup alarm: 42 dB(A); loading dock activity 25 dB(A); bang from loading: 59 dB(A); and HVAC: 23 dB(A).

56. The Permittees will build a ten-foot high "Ply-Wall" or equivalent sound fence along the rear service drive on the west edge of the Project site (between the Lowe's building and the Queen City Park neighborhood), and will plant trees around the outside of the fence, as required by Condition 35, with a modification to protect the South Apartments against noise impacts: the southernmost 120 feet of the sound fence, where it wraps around the truck turnaround, will start at a height of twenty feet and gradually step down to a height of ten feet. See Exhibits H34 and H35.

The Permittees will construct additional sound fences to protect the South Apartments against noise impacts, as follows: (i) the concrete block screen wall extending westward from the southwest corner of the Lowe's building at a height of twenty feet along the south end of the materials handling and storage area and at a height of twelve feet along the south end of the paved access and loading area would be replaced by a "Ply-Wall" or equivalent sound fence a uniform twenty feet in height and (ii) the Permittees would construct an additional "Ply-Wall" or equivalent sound fence at the southeast corner of the Lowe's building, with a uniform height of twelve feet, which would extend easterly a minimum of one hundred feet from the southeast corner of the building, along the south edge of the front parking lot. See Exhibits H34 and H35.

G. Noise Standards

57. Some regulatory standards and guidelines for noise impacts are based on hourly average (Leq) levels.

58. According to the Permittees' models, the average hourly noise levels for all Project-generated noise will range between 37 dB(A) and 38 dB(A) at outdoor locations near the Appellants' residences in Queen City Park. These results are without the proposed ten-foot sound barrier.

59. The *South Burlington Zoning Regulations, Appendix B, Performance Standards*, §2(b)(1) sets out a noise performance standard. In pertinent part, it provides:

3. Noise

Section 1. The following acts are declared to be loud, disturbing and unnecessary noises and shall be deemed detrimental to the health, and safety of the residents of the City of South Burlington:

[a. – e. Noise from defects in the operation of motor vehicles; loud speakers or other sound amplifiers for advertising purposes; horns or signaling devices on motor vehicles, except as danger warnings; radios, TVs, musical instruments, and phonographs; and engine exhaust]

f. Noise in general. Any noise which is deemed objectionable because of volume, frequency or beat and is not muffled or otherwise controlled.

Section 2.

a. The creation of, permitting or operation of any of the above sets, instruments, devices or vehicles causing said noise in such a manner as to be plainly audible at a distance of 50 feet from the building, structure or vehicle in which noise emanates shall be prima facia [sic] evidence of a nuisance and a violation of this ordinance.

b. It shall be a violation of this ordinance for any property owner to create or allow the creation of noise in excess of the following stated limits in the City during the hours of 12 midnight and 8:00 A.M.:

1. 45 dB(A) (based on a one hour average) measured at any point where the property on which the noise emanates adjoins any property used for residential purposes.

60. While none of the Queen City Park residences actually adjoins the Project site, the average hourly noise levels from the Project will be well within the South Burlington nighttime standard.

61. The U.S. Environmental Protection Agency (EPA) has set guideline values for day-night sound levels. The EPA recommends an Ldn of less than or equal to 55 dB(A) outdoors and 45 dB(A) indoors for residential areas. The term "Ldn" is a noise metric that measures the Day/Night Average Sound level which is computed over the course of an entire day. As with Leq, the word "average" implies energy average. This noise metric weighs nighttime noise more heavily by adding 10 dB to nighttime noise levels.

62. The parties conducted noise demonstrations for the Board early in the morning of January 23, 2002. These tests were inconclusive, as neither demonstration mirrored the circumstances or conditions under which the proposed Lowe's store will operate. During the noise demonstrations, the sound from the backup beeper alarms was, at times, loud and annoying; at other times it was virtually inaudible. In addition, excessive wind during the demonstrations may have skewed the results.

H. Sleep Disturbance

63. The World Health Organization recommends an indoor noise level limit of 45 dB(A) (Lmax) in its Guidelines for Community Noise (1999) to avoid sleep disturbance.

64. An individual located inside a residence with the windows open will experience noise levels 17 dB less than the noise levels outside the building.

65. The Permittees estimate that maximum noise levels outside the Queen City Park residences from Lowe's-generated noise will be 59 dB(A) Lmax. The Permittees also estimate that the maximum indoor noise levels, with the windows open, will be 42 dB(A) Lmax.

I. Signage Impacts

66. The Permittees propose two façade-mounted signs on the Lowe's building. The main sign would be a 200 square foot centrally mounted "Lowe's Home Improvement Warehouse" sign. The Permittees propose that the main sign would consist of internally lit opaque white cut-out letters, set on a deep blue background with red trim.

67. A smaller, 43 square foot "Garden Center" directional sign would be mounted inside a plate glass window. The Permittees propose that this sign also have internally lit opaque white letters.

68. The South Burlington Sign Ordinance sets size limits on wall-mounted signage of 5% of the "signable wall area," or 100 square feet, whichever is smaller. *South Burlington Sign Ordinance, §9(c)*. Because of the way that South Burlington measures the square footage of signs, see §2(c), the proposed signs comply with the size limits of the ordinance.

69. The front façade of the Lowe's building will be located more than 1,000 feet from, and below the elevation of, Route 7 / Shelburne Road. Existing retail and commercial buildings, including an Olive Garden restaurant, a Chittenden Bank branch building, a Texaco gasoline station, a Burger King restaurant, and a Mobil gasoline station, will partially screen the view of the front façade from Route 7.

70. The buildings to be constructed to the east of the proposed Lowe's building in the front and middle zones of the Southland development will also partially screen the view of the Lowe's façade. Until those buildings are constructed, the Permittees will retain an existing copse of trees located between the Lowe's parking lot and Route 7 for screening purposes..

71. There are at least 34 internally illuminated signs in the immediate vicinity of the Project. These signs range from 25 to 200 square feet in area. Most of these existing signs utilize primary colors similar to those proposed for the Lowe's façade. The nearby Hannaford supermarket sign is the same size as the main Lowe's sign, and it employs internally illuminated cut-out letters similar in design to the main Lowe's sign. However, the Hannaford supermarket sign faces south, and not east toward Route 7, as the proposed Lowe's signs will.

72. The South Burlington sign regulations permit internally illuminated signs. *South Burlington Sign Ordinance, §19*.

73. There are no other written community standards applicable to the area containing the Project site that address signs.

IV. Conclusions of Law

A. Criterion 8

Under Criterion 8, before issuing a permit, the Board must find the proposed Project will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites or rare or irreplaceable natural areas. 10 V.S.A. §6086(a)(8).

1. Burden of Proof

The burden of proof under Criterion 8 is on those who oppose the Project, 10 V.S.A. §6088(b), but Hannaford, as the applicant for the permit, must provide sufficient information for the Board to make affirmative findings. *See, Re: Southwestern Vermont Health Care Corp.*, #8B0537-EB, Findings of Fact, Conclusions of Law, and Order at 28 (Feb. 22, 2001); *Re: Black River Valley Rod & Gun Club, Inc.*, #2S1019-EB, Findings of Fact, Conclusions of Law, and Order at 19 (June 12, 1997) and cases cited therein. Thus, even when there is no opposing party or evidence in opposition with respect to Criterion 8, as may be the case with Hannaford's claims concerning sign illumination, an applicant will not automatically prevail in the aesthetics issue. *See, e.g., Re: Herndon and Deborah Foster*, #5R0891-8B-EB, Findings of Fact, Conclusions of Law, and Order at 12 (June 2, 1997).

2. Adverse Effect

The Board relies upon a two-part test to determine whether a project satisfies Criterion 8. First, it determines whether the project will have an adverse effect under Criterion 8. *Re: James E. Hand and John R. Hand, d/b/a Hand Motors and East Dorset Partnership*, #8B0444-6-EB (Revised), Findings of Fact, Conclusions of Law, and Order at 24-25 (Aug. 19, 1996), *citing Re: Quechee Lakes Corp.*, #3W0411-EB and #3W0439-EB, Findings of Fact, Conclusions of Law, and Order at 17 -19 (Nov. 4, 1985).

[T]he Board looks to whether a proposed project will be in harmony with its surroundings or, in other words, whether it will “fit” the context within which it will be located. In making this evaluation, the Board examines a number of specific factors, including the nature of the project's surroundings, the compatibility of the project's design with those surroundings, the suitability for the project's context of the colors and materials selected for the project, the locations from which the project can be viewed, and the potential impact of the project on open space.

Hand, supra, at 25, *citing, Quechee, supra*, at 18. In other words, if a project "fits" its context, it will not have an adverse effect. *Re: Talon Hill Gun Club and John Swinington*, #9A0192-2-EB, Findings of Fact, Conclusions of Law, and Order at 9 (June 7, 1995). If the Board concludes that the Project has an adverse effect under Criterion 8, the Board moves to the second part of the test and evaluates whether the adverse effect is "undue." *See, infra*.

Board precedent notes that application of Criterion 8 does not guarantee that views of the landscape will not change:

Criterion 8 was not intended to prevent all change to the landscape of Vermont or to guarantee that the view a person sees from his or her property will remain the same forever. Change must and will come, and criterion #8 will not be an impediment. Criterion #8 was intended to insure that as development does occur, reasonable consideration will be given to the visual impacts on neighboring landowners, the local community, and on the specific scenic resources of Vermont.

Re: Okemo Mountain Inc., #2W5051-8-EB, Findings of Fact, Conclusions of Law and Order at 9 (Dec. 18, 1986); *and see Main Street Landing Company and City of Burlington*, #4C1068-EB, Findings of Fact, Conclusions of Law, and Order at 17 – 18 (Nov. 20, 2001); *Horizon Development, supra*, at 20.

While a built environment is not always adverse, projects that result in the loss of open space and the alteration of vistas can have an adverse effect on aesthetics and scenic beauty. *E.g., Re: Thomas W. Bryant and John P. Skinner*, #4C0795-EB, Findings of Fact, Conclusions of Law, and Order at 21 (June 26, 1991). *See also Re: Maple Tree Place Associates*, #4C0775-EB, Findings of Fact, Conclusions of Law, and Order at 48-49 (June 25, 1998); *Re: George, Mary, and Rene Boissoneault*, #6F0499-EB, Findings of Fact, Conclusions of Law, and Order at 19 (Jan. 29, 1998).

a. *The context of the Project*

To decide whether this Project would "fit" the context of the area, the Board first has to determine what that context is.

i. *noise*

While the proposed Lowe's store will be physically located within the commercial corridor along Shelburne Road, the Board concludes that its sound "neighborhood" goes beyond its physical location, as its noise will reach Queen City Park. The context of the Project as to the noise that it will generate must therefore include Queen City Park.

ii. signage

The Board concludes that the context of the Project as to its signage includes the Route 7 corridor, as there will be sporadic views of the Project from Route 7. The context must also include the less-developed lands on which the Project will be built, as this is the context in which those views will appear.

b. The impact of the Project on its context

Once the Board determines the context of the Project site, the Board then must consider the scope and extent of the Project's impacts on that context.

i. noise

Queen City Park is a quiet residential neighborhood. While off-site noise reaches Queen City Park, this noise is general, ambient background noise – the sound of distant traffic on Route 7, distant commercial noise, the occasional commuter or freight train on the Vermont Railway tracks, and incidental traffic on Central Avenue.

The Project will create new noise from trucks, forklifts, backup alarm beepers, the outdoor PA system and phones, the occasional loud bangs from the loading and unloading of consumer goods and lumber.

The question, then, is whether the noise produced by the project is out of character with the setting. *Re: Barre Granite Quarries, LLC and William and Margaret Dyott, #7C1079 (Revised)-EB*, Findings of Fact, Conclusions of Law and Order at 79-80 (Dec. 8, 2000); *Charles and Barbara Bickford, #5W1186-EB*, Findings of Fact, Conclusions of Law, and Order at 33 (May 22, 1995); *John and Marion Gross, #5W1198-EB*, Findings of Fact, Conclusions of Law and Order at 10 (April 27, 1995); *R.J. Colton Company, Inc., #9A0082-1R-2-EB*, Findings of Fact, Conclusions of Law, and Order at 11 (January 14, 1982). This is a qualitative determination, involving both an examination of the type of noise that the Project will generate and the neighboring land uses.

Board precedent has long considered that different types of noises must be treated differently. Sharp, intermittent or high frequency noises must be judged differently from low frequency continuous noises. In *Re: Bull's Eye Sporting Center et al., #5W0743-2-EB*, Findings of Fact, Conclusions of Law, and Order at 17 (Feb. 27, 1997), the Board wrote:

The impact or quality of noise is not entirely reflected by decibel rating. The degree of noise annoyance must also consider the duration and intermittency of noise. Impulse noises, such as gunshots, are often

judged to be "noisier" or more unwanted than non-impulsive noises have the same total integrated energy.

And see, Re: Black River Valley Rod & Gun Club, supra, at 19; Re: Talon Hill Gun Club, supra, at 9 ("The Station Changes will generate an irregularly occurring, annoying, popping sound.").

The Board has applied this same analysis to situations involving traffic noise. In *Re: OMYA, Inc. and Foster Brothers Farm, Inc., #9A0107-2-EB*, Findings of Fact, Conclusions of Law and Order at 32 (May 25, 1999), the Board rejected a sound measurement scheme that averaged truck traffic sound levels over 24 hours and found that such sounds would have no significant affect on background sound levels averaged over that same time. Rather, the Board found that

69. The conclusion contained in [OMYA's consultants'] report that OMYA trucks would not significantly increase the noise levels in Brandon Village is based on average noise levels and not the instantaneous noise. When evaluating the real effect on people from the noise of passing trucks, *it is more appropriate to consider the instantaneous noise from the trucks as they pass because that is what people experience.*

70. While the average noise levels may not increase significantly with OMYA's proposed additional truck traffic, *each additional instance of a truck passing results in an additional instantaneous loud noise, or an additional annoyance that interferes with sleep and conversations.* Each additional truck increases the number of times that the loud, instantaneous noise level is experienced. Each truck is experienced as a loud noise for the several minutes it takes to drive through Brandon Village.

73. *The instantaneous noise level that a person experiences when a truck passes is considerably higher than the 24-hour or hourly average.*

OMYA, supra, at 15-16 (emphasis added); and see, Re: Casella Waste Management, Inc., and E.C. Crosby & Sons, Inc., #8B0301-7-WFP, Findings of Fact, Conclusions of Law, and Order at 31 - 32 (May 16, 2000).

In the instant matter, it is the sudden, sharp, piercing, disruptive and instantaneous noises - such as those which will be created by the backup beepers on trucks and forklifts, the PA system, and the bangs from loading or unloading of products - that cause the Project to not fit within its surrounding context. The Board therefore concludes that this Project would be out of character with its surroundings (which include Queen City Park) and would have an adverse effect on the aesthetics of this area.

ii. signage

There is no question that the Project itself is adverse in terms of its visual aesthetic impacts on its location. Specifically as to the proposed signs, while the Route 7 corridor is replete with internally illuminated signs, if approved as requested, the Project's signage will illuminate an area to the west of Route 7 which is presently not illuminated. The Board concludes that the illumination of this Project's signage on the present landscape would have an adverse effect on the aesthetics of the area.

3. Undue Adverse Effect

If the Board concludes that the Project has an adverse effect under Criterion 8, the Board must evaluate whether the adverse effect is "undue." The Board will conclude that adverse effect is "undue" if it reaches a positive finding with respect to any one of the following factors:

Does the Project violate a clear, written community standard intended to preserve the aesthetics or scenic beauty of the area?

Does the Project offend the sensibilities of the average person? Is it offensive or shocking because it is out of character with its surroundings or significantly diminishes the scenic qualities of the area?

Has the Applicant failed to take generally available mitigating steps which a reasonable person would take to improve the harmony of the Project with its surroundings?

See, Quechee Lakes, supra, at 19-20. And see, Black River, supra, at 19-20; Hand, supra, at 25-29.

a. Written Community Aesthetic Standard

Under this first factor, the Board must determine whether the Project violates a clear, written community standard intended to preserve the aesthetics or scenic beauty applicable to the area in which the Project would be located.

In evaluating whether a project violates a clear written community standard, the Board routinely looks to town plans, open land studies, and other municipal documents to discern whether a clear, written community standard exists and should be applied in the review of the aesthetic impacts of a project. *See Raymond and Centry Duff*, #5W0952-2-EB, Findings of Fact, Conclusions of Law, and Order at 9 (Jan. 29, 1998); *Re: Herbert and Patricia Clark*, Application #1R0785-EB, Findings of Fact, Conclusions of Law, and Order at 35 - 37 (Apr. 3, 1997); *Re: Thomas W. Bryant and John P. Skinner* at 22; and *see Nile and Julie Duppstadt & John and Deborah Alden*, #4C1013-EB, Findings of Fact, Conclusions of Law, and Order at 34 (Apr. 30, 1999) (town plan can be an authoritative source of clear community aesthetic standards, and it is therefore appropriate for the Board to rely upon such a Plan “in determining whether [a] Project violates the community standard.”)

The Board explained the intent of the clear, written community standard in the *Re: Town of Barre*, #5W1167-EB, Findings of Fact, Conclusions of Law, and Order (June 2, 1994):

In adopting the first standard in the Quechee analysis, the Board intended to encourage towns to identify scenic resources that the community considered to be of special importance: a wooded shoreline, a high ridge, or a scenic back road, for example. These designations would assist the district commissions and the board in determining the scenic value of specific resources to a town, and would guide applicants as they design their projects.

Id. at 21.

At issue in *Barre* was the following portion of a town plan discussing scenic resources:

In the 1989 planning survey dealing with future growth, preservation of visual beauty was the highest priority of the residents polled. Eighty-nine percent of those responding said that planning to retain visual beauty was necessary. . . . Barre Town's visual beauty is an asset which the Town has to offer to any prospective resident or employer who is considering relocating to the community. . . . [T]he Town of Barre's policy regarding aesthetics is one of encouraging enhancement and preservation of natural areas, views, and vistas.

Id. at 13-14.

In *Barre*, the Board ruled that the above quoted language did not rise to the level of a clear, written community standard, because “they apply generally to the community at large rather than to specific scenic resources in the project area.” *Id.* at 21.

In contrast to *Barre* was the town plan provision at issue in *Re: Taft Corners Associates, #4C0696-11-EB* (Remand), Findings of Fact, Conclusions of Law, and Order (Revised) (May 5, 1995). The Board found that the town plan identified as “significant” the views of the mountains to the east and west and foreground views from I 89 of “the high ground at the water tower and other open spaces . . .”. *Id.* at 19. The Board quoted the town plan:

Taft Corners should feature quality design, compatible with its setting. Buildings should be architecturally compatible and should be enduring, not transient. Their siting should enhance the setting, and particularly the east-west views. The placement of buildings should define public spaces, such as the streets, courtyards and greens. The area should be well landscaped, and feature green spaces, open spaces, trails and other opportunities for human interaction.

Id. at 18-19. Based on the above language, the Board found a clear, written community standard “which contains provisions regarding aesthetics” that applied to the project. *Id.* at 42; *accord, Re: Herbert and Patricia Clark, supra* (Brandon Town Plan constituted clear, written community standard where it established and defined three categories of scenic resources, contained an inventory that described 30 scenic areas, and provided recommended policies and implementation measures for protecting the scenic value and resources of the listed areas and where the proposed project was located in one of the scenic areas listed in the inventory); *Re: The Mirkwood Group and Barry Randall, #1R0780-EB*, Findings of Fact, Conclusions of Law, and Order at 22-23 (Aug. 19, 1996) (Pittsford zoning ordinance constituted clear, written community standard where a proposed radio tower was located within a conservation district and the ordinance contained a clear statement of the community policy against use of conservation district lands for anything other than dwellings, forestry, and agriculture).

The Board must therefore examine whether there are community aesthetic standards that are applicable to the Project.

i. noise

The South Burlington Zoning Regulations establish two noise standards. In their general provisions, they regulate certain noises noted in §§3(1)(a)-(e); they also regulate "(f) Any noise which is deemed objectionable because of volume, frequency or beat and is not muffled or otherwise controlled." The Zoning Regulations then prohibit

these noises from being "plainly audible at a distance of 50 feet from the building, structure or vehicle in which noise emanates...."

The noises which Lowe's intends to create do not fall within the particular noises described in §§3(1)(a)-(e) of the Zoning Regulations. As to subsection (f), the Board concludes that the phrase "deemed objectionable" is so subjective as to be unclear for purposes of this *Quechee* standard. See, *Town of Barre*.

The Zoning Regulations also set noise standards for the nighttime. Between 12:00 a.m. to 8:00 a.m. noise may not exceed "45 dB(A) (based on a one hour average) measured at any point where the property on which the noise emanates adjoins any property used for residential purposes." *South Burlington Zoning Regulations, Appendix B, Performance Standards*, §2(b)(1). The Board does not believe that the ordinance's use of a one-hour average Leq measurement adequately protects City residents from sudden noises, as a noise source can be quiet for 59 minutes and very loud for one minute and yet still comply with the local hourly average standard. Nonetheless, this is the standard that the City of South Burlington has chosen to use to protect the nighttime peace of its community, and the Project complies with it.

ii. *signage*

The South Burlington Sign Ordinance sets size limits on wall-mounted signage. *South Burlington Sign Ordinance*, §9(c). Because of the way that South Burlington measures the square footage of signs, see *id.*, §2(c), the proposed signs comply with the size limits of the ordinance. Likewise the South Burlington sign regulations permit internally illuminated signs. *Id.*, §19.

There are no other written community standards applicable to the area containing the Project Tract that address signs.

The Project complies with South Burlington's community standards as to signage.

b. *Shocking or offensive*

Under this second aesthetic factor, the Board must determine whether the Project offends the sensibilities of the average person. This includes whether the Project would be so out of character with its surroundings or so significantly diminish the scenic qualities of the area as to be offensive or shocking to the average person. *Re: Pike Industries, Inc. and William E. Dailey, Inc.*, #1R0807-EB, Findings of Fact, Conclusions of Law, and Order at 18 - 19 (June 25, 1998); *Duppstadt, supra*, at 35; and see, *Re: Robert B. & Deborah J. McShinsky*, #3W0530-EB, Findings of Fact,

Conclusions of Law, and Order at 9 (April 21, 1988), *aff'd, In re Robert and Deborah McShinsky*, 153 Vt. 586 (1990).

i. noise

Under this second factor, the Board must determine whether the noise which will be generated by the proposed Lowe's store will be so out of character with its surroundings or so significantly diminish the scenic qualities of the area as to be offensive or shocking to the average person. *Pike Industries, Inc. and William E. Dailey, Inc.*, #1R0807-EB, Findings of Fact, Conclusions of Law, and Order at 18 ¶ 19 (June 25, 1998); *OMYA, supra*, at 37.

There is no question that the commercial noise from the Project site will add to the noise presently experienced in Queen City Park and therefore be out of character for that area. The question, however, is not merely whether the possible noise from the Project is out of character with Queen City Park but whether it is *so out of character* as to be aesthetically shocking or offensive to the ordinary person. To make this determination, the Board must examine where this case fits within its prior precedent.

In *OMYA* the Board found the impacts and noise levels that could occur to be shocking and offensive. But the present matter does not rise to the level of noise that was possible in the *OMYA* case. Rather, the Board concludes that this case falls closer to the disturbances found not to be offensive or shocking in *Talon Hill*:

The sound test revealed that the noise generated by shooting in the currently permitted directions is not significantly different than that which is generated by shooting in the proposed direction. As already noted, the area surrounding the Gun Club is open agricultural/rural in nature. Some traffic noise is generated on the nearby roads. Farm machinery is frequently in use. A train regularly travels through the area. The Gun Club does not dramatically interrupt this setting. The noise from the Gun Club will remain annoying. Nothing more. It is not shocking. It does not offend the Board's sensibilities.

Talon Hill, supra, at 10.

The Board will require certain sound levels to be met by the Permittees as regards noise. See *infra*. Given these limitations, the Board concludes that the noise generated by the operation of the proposed Lowe's store will not rise to the level that it could be considered offensive or shocking.

ii. signage

The Board does not find the illuminated signage proposed for the Lowe's building to be either shocking or offensive.

c. Mitigation

Pursuant to 10 V.S.A. §6086(c), the Board has the authority to impose conditions necessary to alleviate adverse impacts with respect to the ten Act 250 criteria. As long as a condition constitutes a proper exercise of the police power and alleviates adverse effects that would otherwise be caused by a project, the Board may impose the condition. In effect, without the permit condition, the Lowe's project's undue adverse effect on aesthetics would require a conclusion that it fails to meet Criterion 8. However, with appropriate conditions that alleviate the undue adverse effect, a permit may be granted, *In re Alpen Associates*, 147 Vt. 647 (1986). Any condition, of course, must be reasonable. *In re Denio*, 158 Vt. 230, 240 (1992).

In judging whether there should be mitigation, the Board looks to the steps that the applicant has taken or may take to reduce the aesthetic impacts of a project on the character of the area where it is proposed; the Board asks whether there are generally available mitigating steps that have or should be taken to improve the harmony of the project with its surroundings. See *Re: Thomas W. Bryant and John P. Skinner, supra*, at 22 (height and exterior color restrictions on homes, plantings to screen the development, covenants to govern future activities on the site, and retained open space all comprised generally available mitigating steps to alleviate adverse effects of subdivision on the surrounding area).

i. noise

The Board has had several recent occasions to address the question of offensive noise which is generated by a proposed development, such as an earth resources extraction operation or other commercial endeavor. There are two factors that the Board has considered; first, maximum sound levels; and second, hours of operation.

As to the first factor - sound levels - the Board has not attempted to instruct applicants as to how they should operate their businesses; rather, the Board has set maximums on the level of noise (Lmax) that proposed projects will be allowed to create and then left applicants to their own devices to determine how those levels will be met.²

² For the loud, intermittent noises that are generated by granite or gravel pits, or by the proposed Lowe's store, the Board does not believe that an average noise limitation (Leq) is of much value. See the Board's discussion of South Burlington's Noise Ordinance, *supra*.

For commercial operations such as quarrying operations, the Board has set maximum sound levels (Lmax) at either the applicant's property line or at relevant receptors on neighboring properties, or both. Thus, in *Dominic A. Cersosimo and Dominic A. Cersosimo Trustee and Cersosimo Industries, Inc.*, #2W0813-3 (Revised) - EB, Findings of Fact, Conclusions of Law, and Order at 13 (Apr. 19, 2001), the Board wrote:

In both *Barre Granite Quarries* and *Bickford*, the Board applied a quantitative analysis to gauge and control the noise impacts from quarries. In *Barre Granite Quarries* the Board found that the adverse aesthetic effects from noise from the quarry would not be undue if such noise were to be restricted by a permit condition such that noise levels would "not exceed 70 dB(A) Lmax at the Project boundary and 55 dB(A) Lmax outside any residence or area of frequent human use." *Barre Granite Quarries*, Land Use Permit #7C1079 (Revised)-EB, Condition 10 (Dec. 8, 2000). In *Bickford*, the Board held that, "Interference with activity and annoyance will occur if outdoor noise levels exceed 55 dB." *Bickford*, at 33.

Thus, at least within the context of a Criterion 8 analysis, the Board has established "unduly adverse" levels of 55 dB(A) Lmax at residences, and in the case of the *Barre Granite Quarries* decision, at any "area of frequent human use," which could, in some cases, be up to the quarry's property line.

The *Cersosimo* standards have been recently applied by the Board in its analysis of sound generated by a quarrying operation. In *Re: Alpine Stone Corporation, ADA Chester Corporation, and Ugo Quazzo*, #2S1103-EB, Findings of Fact, Conclusions of Law, and Order at 33 (Feb. 4, 2002), the Board noted the above cases and wrote:

Consistent with this precedent, the Board concludes that noise from the Project will not create an undue adverse aesthetic effect if it is limited to 55 dB(A) Lmax at any area of frequent human use. Currently, the only areas of frequent human use near the Project are residences.

In some cases, the Board has set noise limits for property boundaries, as well as for nearby residences. *See, e.g., Barre Granite*, Land Use Permit #7C1079 (Revised)-EB, Condition 10 (Dec. 8, 2000) (limiting noise to 70 dB(A) Lmax at the project boundary). However, while sound levels at the quarry's property boundaries have some bearing on sound levels on neighboring lands, "what the neighbors will actually hear will depend on a range of factors, including their distance from the quarry operations, the topography of the land and the density of the vegetation." *Cersosimo*, Findings, Conclusions and Order at 10 (citing

Re: Bull's Eye Sporting Center and David and Nancy Brooks, et al., #5W0743-2-EB (Altered)(Revocation), Findings of Fact, Conclusions of Law, and Order at 10 (June 23, 2000)). As in *Cersosimo*, the Board sees no need to limit noise at the quarry's property lines when it has limited noise at the nearest residences, "the more essential receptor points." *Id.* (discussing noise in the context of a Criterion 10 analysis).

The Board also concludes that there must be different standards for daytime and nighttime operations for projects whose sound will impact on residential areas.³ Using the EPA Ldn standard for guidance, this results in noise maximums at the Queen City Park residences of the Appellants of 55 dB(A) Lmax for Lowe's daytime operations and 45 dB(A) Lmax for Lowe's nighttime operations. For purposes of these limitations, the Board defines "nighttime" as between the nighttime hours of 7:00 p.m. and 7:00 a.m.

Assuming the accuracy of the noise models proffered by its sound expert, Hannaford should have little difficulty meeting these limitations. See, *Old Vermonter Wood Products and Richard Atwood, #5W1305-EB*, Findings of Fact, Conclusions of Law, and Order at 15 (Aug. 19, 1999) ("The Board will accept the [traffic] numbers presented by the Permittees and then require the Permittees to operate within their stated predictions.") The Permittees' models project that, with a ten-foot sound barrier in place, only one activity - bangs from loading (53 dB(A) - will exceed a maximum noise level (Lmax) of 45 dB(A) at the three Queen City Park residences for which modeling was calculated.

Taking into account the different noise context of the South Apartments and the additional mitigation measures agreed to by the Permittees, the Board will adopt the noise maximums for the South Apartments set forth in the Stipulation: 60 dB(A) Lmax for Lowe's daytime operations and 50 dB(A) Lmax for Lowe's nighttime operations. The Board will also require that Hannaford construct all of the sound fences and take the other additional mitigation measures contemplated by the Stipulation, as follows:

The Permittees shall construct a "Ply-Wall" or equivalent sound fence along the rear service drive on the west edge of the Project site (between the building and the Queen City Park neighborhood), and shall plant trees around the outside of the fence, as shown on Exhibits H34 and H35. The sound fence shall have a uniform height of ten feet, except that the southernmost 120 linear feet of the sound fence, where it wraps

³ The Board notes that its earlier precedent in the *Barre Granite, Cersosimo* and *Alpine Stone* cases set only one maximum noise level at 55 dB(A). Because these operations run only during the day, however, there was no need to set a nighttime limitation.

around the truck turnaround, shall start at a height of twenty feet, and shall gradually step down to a height of ten feet, as shown in Exhibits H34 and H35.

The concrete block screen wall extending westward from southwest corner of the Lowe's building at a height of twenty feet along the south end of the materials handling and storage area and at a height of twelve feet along the south end of the paved access and loading area, as shown in the building elevations submitted to the Board as Exhibit H30, shall be replaced by a "Ply-Wall" or equivalent sound fence with a uniform height of twenty feet, as shown in Exhibits H34 and H35.

The Permittees shall construct an additional "Ply-Wall" or equivalent sound fence at the southeast corner of the Lowe's building. The additional sound fence shall have a uniform height of twelve feet, and shall extend easterly a minimum of one hundred feet from the southeast corner of the building, along the south edge of the front parking lot, as shown in Exhibits H34 and H35.

All forklift and customer delivery truck backup alarms shall be self-adjusting with an output range rating of 77 dB(A) to 97 dB(A), measured at four feet.

The Board has set maximum noise levels that cannot be exceeded; how Hannaford meets that level is its own concern. Hannaford may employ other devices or strategies – such as additional sound fences, enclosures, stained concrete blocks, sound absorbent materials or other design features - to control the noise which the Lowe's project will generate, as long as such devices or strategies do not constitute material or substantial changes to its existing permits, or, if they do, as long as Hannaford obtains a permit for such changes.

Thus, the Board will modify the Commission Permit to impose maximum noise limits at the noted receptor points at the Queen City Park residences and at the South Apartments.

To ensure that these maximums are not exceeded, the Board will also require post-construction noise monitoring:

The Permittees shall file a written noise monitoring report with the Commission within six months after the opening of the Project. The report shall contain the results of a noise monitoring study conducted after the opening of the Project by a noise consultant retained by Permittees. The Commission shall approve the consultant selected by the Permittees after an opportunity for comment on the selection by all parties. The post-

opening study conducted by the consultant shall measure broadband, A-weighted one-hour Leq and Lmax sound levels on the east side of the Wilber, Katz, Yankowski and Copp/Hodgson residences, and at ground level on the north side of the building closest to the Project in the apartment complex immediately to the south of the Project, with all typical Project noise sources in operation, and broadband, A-weighted five-minute Leq sound levels at each location without the Project noise sources in operation, to establish a background level. The consultant shall observe the sound levels in real time, and shall record the maximum levels for observed events, to confirm the noise source for each such event. The written report shall state the monitoring results and noise generated by the Project in comparison with ambient sound levels.

On request, or upon the complaint of a party, or on its own motion, the Commission may reopen the hearing and impose additional conditions, including further monitoring requirements and/or the construction of additional sound mitigating devices, should the reported noise levels from the Project operation exceed, or should the Commission have reasonable grounds to believe that the noise levels from the Project operation exceed, those previously predicted by the Permittees' consultant, as set forth in Finding of Fact 52 of *Hannaford Brothers Co. and Southland Enterprises, Inc.*, Land Use Permit 4C0238-5-EB, Findings of Fact, Conclusions of Law, and Order, issued on even date herewith.

The Conditions set forth above shall supersede Condition 32 and 35 and the first Condition 33 of the Commission's Permit.

Because even under the best of circumstances, Hannaford cannot guarantee that it will meet the Lmax limitations set out above, the Board concludes that the Commission's second Condition 33, which prohibits deliveries to the rear of the proposed Lowe's building between the nighttime hours of 10:00 p.m. and 5:00 a.m., constitutes a reasonable mitigation requirement.

However, as an additional safeguard to protect the quieter nighttime hours in the Queen City Park neighborhood, the Board will also expand the second Condition 33 of the Commission Permit to impose the following limits on intermittent noise:

There shall be no exterior loading of the trash compactor and no testing of the emergency generator between the nighttime hours of 7:00 p.m. and 7:00 a.m. The loudspeakers for outdoor paging / telephone system shall be located only in the garden center or on the east (front) facade of the store, and shall face northeast, east or southeast. The outdoor paging / telephone system shall not be operated between the nighttime hours of 7:00 p.m. and 7:00 a.m.

ii. signage

In determining whether an internally illuminated sign fits within the context of its surroundings, the Board will consider the size of the sign, the size of signs at similar commercial establishments nearby, and whether those signs are internally or externally illuminated. *The Home Depot USA, Inc.*, #1R0048-12-EB, Findings of Fact, Conclusions of Law, and Order at 47 (Aug. 20, 2001).

Commercial properties along the Route 7 corridor have internally illuminated signs of similar size, color and design to the signs proposed for the Lowe's building. There is little doubt that, because of the topography, screening and distance which exists between Route 7 and location of the proposed Lowe's signs, those signs will have less visual impact on the view from Route 7 than most of the existing signs along the Route 7 corridor. *Compare with Town and Country Honda*, #5W0773-2-EB, Findings of Fact, Conclusions of Law, and Order at 7 (February 15, 2001) (discussing internally illuminated signs on a Shaw's supermarket and a Staples store located 600 feet from a main road). Were the proposed Lowe's signs to be judged solely within the Route 7 context, therefore, the Board would be unable to justify a mitigation requirement.

As the Board found above, however, the context of the Project also includes the less-developed lands of the Project Tract, which are some distance to the west of Route 7. While it is true that the Hannaford supermarket has internally illuminated signs, those signs face south; by contrast, the Lowe's sign will face directly east, toward Route 7. In this context, an internally illuminated sign will appear in the night as a beacon against the dark background of trees to the west of the proposed Lowe's site, clearly contrary to the values protected by Criterion 8 and would contribute to an increase in ambient nighttime light. The Board concludes that reasonable mitigation of the Project requires that the sign not be internally illuminated.

The Board concludes that if Hannaford takes the above available mitigating steps to improve the harmony of the Project with its surroundings, the effects of this Project will not be unduly adverse, and the Project thus complies with Criterion 8.

V. Order

1. Land Use Permit #4C0238-5-EB (Altered) is issued herewith.
2. Jurisdiction is returned to the District 4 Environmental Commission.

Dated at Montpelier, Vermont this 27th day of November 2002.

ENVIRONMENTAL BOARD

 /s/Marcy Harding
Marcy Harding, Chair
*John Drake
Samuel Lloyd
** W. William Martinez
** Rebecca M. Nawrath
Alice Olenick
**Jean Richardson
Donald Sargent
* **Nancy Waples

* Board Members Drake and Waples were not present at the deliberations on March 20, 2002, but they reviewed and concurred with the decision as issued on April 9, 2002.

** Board Members Martinez, Nawrath, Richardson and Waples were not present at the deliberations on November 20, 2002, but they have reviewed and concur with this decision.