

STATE OF VERMONT
ENVIRONMENTAL BOARD
10 V.S.A., Chapter 151

RE: Fairfield Associates, Ltd. FINDINGS OF FACT, CONCLUSIONS
Stephen R. Crampton, Esq. OF LAW AND ORDER
Gravel, Shea & Wright Application #4C0570-EB
P.O. Box 1049
Burlington, Vermont 05402

This Decision pertains to appeals filed with the Environmental Board ("the Board") on April 19, 1984 by Sunset Cliff, Inc., Robert G. Cain, and Curtis Avenue Residents Association from the District #4 Environmental Commission's Land Use Permit #4C0570 dated March 20, 1984. That permit specifically authorized the permittee to construct a planned residential development to include 9,142 feet of roadway and utilities, 230 attached homes, the subdivision of 60 residential lots and the construction of related improvements on a 77 acre tract of land. The project will be serviced by municipal water and sewer and is located adjacent to Appletree Point Road in Burlington, Vermont.

A prehearing conference was convened by the Board's Chairman on May 2, 1984 in Essex Junction, Vermont. A public hearing was convened by the full Board on May 23, 1984 and recessed on that date. Reconvened hearings were held on June 6 and July 11, 1984. The Board conducted a site visit on May 9. Parties present at the hearings were:

Applicant Fairfield Associates, Ltd. by Donald Tarinelli
and Stephen R. Crampton, Esq. ;
State of Vermont, Agency of Environmental Conservation by
Dana Cole-Levesque, Esq. ;
Sunset Cliff, Inc. ("SCI") by Arthur R. Hogan, Jr. ;
Curtis Avenue Residents Association ("CARA") by Robert
Cain, Esq. ;
Robert Cain ;
Merrill and Lucille Jarvis by William Roper, Esq. ;

The Board recessed the hearing on July 11, pending the filing of proposed findings and conclusions, a review of the record, and deliberation. The Permittee and SCI filed proposed findings on July 27, 1984. On August 29, 1984, the Board determined the record complete and adjourned the hearing. /1/

/1/ Board members Miller and Sargent did not attend all hearings in this matter but have reviewed recorded tapes for the purpose of participating in this decision.

This matter is now ready for decision. The findings and conclusions stated below are based upon the record developed at the hearing. To the extent that the Board agreed with and found necessary any requested findings and conclusions submitted by the parties, they are incorporated herein; otherwise, such requests are denied.

I. PROCEDURAL ISSUES

A. Party Status

Each of the Appellants sought to expand upon the scope of their party status as awarded below by the District Commission. In contrast, the Permittee contended that none of the Appellants qualified for party status under 10 V.S.A. §6085(c) or Board Rule 14(B). The parties agreed to a submission of these arguments to the Board by written motion. At its regularly scheduled May 9 meeting, the Board conducted a deliberative session to review party status issues. On May 14, the Board issued a Memorandum of Decision and Order which we hereby incorporate by reference.

B. Impact of Prior District Commission Decision

On May 7, 1982, the Commission issued a decision denying Land Use Permit Application #4C0475 filed by Lakeshore ("Lakeshore") Associates. Lakeshore proposed to construct 164 two bedroom residences on a 38.5 acre portion of a larger tract owned by Fairfield Associates which is the project site for the development before the Board in this appeal. SCI, CARA and Cain argued that the findings and conclusions of the Commission in its May 7, 1982 decision are binding upon Fairfield Associates and collaterally estop the Permittee from relitigating similar issues in respect to the pending application. They, therefore, argue that this appeal should be dismissed or, in the alternative, this case should be remanded to the Commission for further proceedings in light of the 1982 findings and conclusions.

The parties again agreed to the submission of these issues to the Board by written motion. The Board conducted a **deliberative** session during its May 9 meeting and issued its decision on May 14, 1984. That decision and order are incorporated by reference.

At the Board's May 23 hearing, SCI filed a motion asking that we reconsider our May 14 decision, and remand the case to the Commission. We reiterate our original decision. SCI first argues that new information pertaining to streams and wetlands on the project site will be presented for the first time before the Board. It argues that such issues must first be considered by the Commission. However, page 8 of the Commission's March 20

decision and permit condition #10 suggest that these issues are not raised for the first time on appeal. Furthermore, unlike appeals from this Board to the Supreme Court (see 10 V.S.A. §6089), we are not confined in this de novo proceeding to a consideration only of matters presented to the Commission.

SCI's May 23 Motion also argued that the Applicant will have to submit a "new proposal" for dealing with wetland and stream issues, and that such new proposals must first be presented to the Commission. The Supreme Court has held that this Board is without jurisdiction to review for the first time on appeal a new proposal, involving new construction on new project lands. In re Juster Associates, 136 Vt. 577 (1978). However, as described below (see Findings #12 and #13), we conclude that the alterations to the project design made by the Applicant are not of such significance that remand is required under the analysis of the Juster case.^{2/}

Finally, SCI argues in its motion that an alleged failure to provide notice to certain adjoining property owners requires a remand. SCI does not argue that it did not receive proper notice of all Commission and Board proceedings in this case. It also does not argue that its participation in this matter has somehow been impeded by a failure to notify two other adjoining property owners. Consistent with our decision in John A. Russell-Corporation, #1R0257-1-EB, issued November 30, 1983, we must conclude that SCI lacks standing to raise this notice issue. See East Montpelier Development Corp. v. Barre Trust & Abare, 127 Vt. 491, 494 (1969).

C. Withdrawal of CARA, Cain and the Jarvises

Early in the Board proceedings on June 6, CARA and the Jarvises announced that each had reached agreement with the Applicant concerning project impacts and on the basis of those agreements both parties sought permission to withdraw. By letter dated July 27, 1984, Robert Cain notified the Board of his withdrawal from participation in this case. The Board granted these parties permission to withdraw and has considered the parties' stipulations in issuing this decision.

II. 'SUBSTANTIVE ISSUES IN THE APPEAL

of 10 SCI V.S.A. raised §6086(a): substantive 1(B)-(D)-(E)-(F), issues under the 5, following 6, 7, 8, Criteria 9(C)-(J)-(K), and 10.

^{2/}The Court did note by way of dictum, "An amendment to the permit might have been appropriate if Juster had, for example, wished to install a different type of sewer system than that approved - a question we need not decide here ..." In re Juster Associates, 136 Vt. at 581.

Under Criterion 1 **SCI** argues that, in view of an infiltration problem in the City North End sewer system, the Permittee has not met its burden of proof under Criterion 1(B). **SCI** further argues that the stormwater detention basin proposed by the Permittee will adversely affect the Lake Champlain shoreline and floodway as well as a stream near the site of the proposed basin.

Under Criterion 5, **SCI** argues that the project would cause unreasonable congestion and unsafe conditions on both North Avenue and Staniford Road.

In respect to educational services under Criterion 6, **SCI** argues that Fairfield has not addressed the potential capital expenditure burden which the project could impose on the Burlington School system if additional classroom space is required to serve residents' children.

The following governmental services cognizable under Criterion 7 will be burdened in **SCI's** opinion: North Avenue and Staniford Road, police services, the school system, and the solid waste disposal system. **SCI** further argues that the City will be burdened with a clean-up of Appletree Bay.

In regard to the aesthetics aspect of Criterion 8, **SCI** believes that the project will adversely affect the scenic beauty of the existing hayfield adjacent to Lake Champlain and that multi-unit attached housing is inconsistent with the prevailing residential patterns in the area. Under the same Criterion, **SCI** argues that a wetland at the site of the proposed stormwater detention basin is a "necessary wildlife habitat" and an "irreplaceable natural area" which will be destroyed or significantly imperiled by the project.

SCI argues that the project site consists of secondary agricultural soils and that Fairfield has not designed the project in a manner which would minimize the reduction of agricultural potential as required by Criterion 9(C). **SCI's** concerns under Criterion 9(J) pertain to the impact of the Fairfield water system on the quantity and quality of a private water system maintained by **SCI**. **SCI** argues under Criterion 9(K) that the project will have an adverse impact on Staniford Road, North Avenue, and Lake Champlain as public investments.

Finally, **SCI** believes that the project does not conform with the Burlington Municipal Plan as required by Criterion 10 in that increased traffic generated by the project is inconsistent with the "North End Policy," use of Staniford Road as the project's primary access route is contrary to the Plan's goal of preserving existing residential neighborhoods, and is contrary to that road's character as a "local" street.

III. FINDINGS OF FACT

1. Fairfield Associates ("Fairfield") proposes to develop a residential project known as "Strathmore" on a 77 acre parcel of land located on Appletree Point in Burlington, Vermont. The project involves the creation of 60 residential lots at least 15,000 square feet in area, and the construction of 230 multi-family units.
2. Fairfield will install a variety of support facilities to serve the housing development: a sanitary sewer system connected to the existing municipal system; a water system drawing from the municipal water system; interior roadways; a stormwater collection, treatment and disposal system; parking space for 580 vehicles; exterior lighting; landscaping; sidewalks and a recreational area consisting of a ball field, tennis courts and basketball courts.
3. A small, rectangular portion of the property ("the lakeshore lot") extends in a southerly direction and fronts on Lake Champlain's Appletree Bay for approximately 200'. The remainder of the site lies in the interior of Appletree Point, a peninsula which extends into the Lake. The site is substantially surrounded by single family residences with the exception of a large tract of open land adjacent to the project's northerly boundary. Access is currently provided to the point by way of a private roadway known as Appletree Point Road. Municipal water and sewer service does not now extend to the Point area.
4. Members of **SCI** own property adjacent to the northwest boundary of the site. Members of **CARA** own property in a residential subdivision adjacent to the northeast corner of the project. The **Jarvises** own property adjacent to the lakeshore lot.

10 V.S.A. §6086(a) (1) (B) - Sanitary Wastewater Disposal

5. Sanitary sewage generated by the project will be collected by way of a gravity sanitary sewer collector system to be constructed by the Applicant. Sewage will flow toward the southeast corner of the premises where a pump station will be installed. From that point, a force main will carry sewage northward, connecting to an existing city sewer line which conveys effluent to the City's North Sewage Treatment Plant.
6. On December 29, 1983, the Agency of Environmental Conservation, Department of Water Resources ("**AEC**") issued a site and foundation letter, approving the project as

conforming with the Department's Environmental Protection **Rules**. Exhibit #49./3/ We find that this approval, when filed with the Board, established a rebuttable presumption that sewage could be disposed of through the installation of sewage collection, treatment and disposal systems without resulting in undue water pollution as provided in Board Rule 19.

7. No party to these proceedings challenged the presumption attaching to the AEC approval, nor did inquiry by a party or the Board reveal a sufficient basis to set aside the presumption. We, therefore, find that the project's sanitary sewage disposal system complies with applicable Department of Water Resources Regulations and will not involve the injection of waste materials or any harmful or toxic substances into groundwater or wells.
8. We further find, however, that the North End sewage collection system has been plagued by occasional surcharges of unknown cause. While connection of the Fairfield **project** to the municipal line is likely to have little impact on this problem, the Permittee has agreed with the City to assume its fair share of the expense of investigating the cause of the problem and the cost of correcting the deficiency.

10 V.S.A. §6086(a) (1) (B)-(D)-(E)-(F) - Stormwater Treatment and Discharge

9. A mild "ridge" located north of the project site and running in a generally east-west direction acts to divide surface water runoff on Appletree Point: lands north of this dividing line generally drain in a westerly direction, ultimately discharging to Lake Champlain from the north shore of the Point; lands south of the dividing line drain generally southwest, discharging to the Lake from the south shore of the Point.
10. Taking advantage of the prevailing drainage patterns, Fairfield proposes to regrade the site to establish a generally southerly flow of surface water. Surface water moving over grassed areas will be channelled through grassy swales into catch basins and discharged into the stormwater detention basin located at the lakeshore lot. Exhibit #26. Movement through the swales will serve to attenuate the flow of water and will provide some filtration of stormwater.

/3/ All parties stipulated to the admission of all District Commission exhibits into the Board's record. Unless otherwise noted, exhibit numbers refer to the number assigned by the Commission.

11. Stormwater from parking areas, driveways and roads will be collected in catch basins designed to filter out foreign material from the surface of the water and solids which settle to the bottom of the catch basin. A storm sewer network (separated from the sanitary sewer lines) will then collect the surface water and convey it to a stormwater detention basin.
12. Fairfield proposes to construct the stormwater detention basin in a **wetland area** on the lakeshore lot through the installation of a four-sided dike system, each side of which will be approximately 5' high. The southerly wall of the dike system will be constructed of sand selected for its ability to filter foreign material as stormwater seeps through the face of the basin. This wall will be layered with rip rap which, together with a 15' wide apron of rip rap immediately south of the toe of the filter wall, will tend to dissipate wave action from the Lake and is designed to protect the basin from storm damage. The rip rap apron will be located approximately 15' from the Lake's mean high water mark.
13. Stormwater collected in the drainage swale system described in Finding #10 and in the stormwater sewer collectors described in Finding #11 would be channelled under the reconstructed Appletree Point Road through a 36" culvert, entering the basin at its northerly end. Stormwater would be filtered by the existing wetland vegetation as it flows southerly through the 220' long **basin**.^{/4/} Finally, water would continue to be filtered as it gradually flows through the face of the southerly dike.
14. AEC has approved the stormwater treatment and discharge system by way of a Temporary Pollution Permit issued November 10, 1983 as confirmed in letters dated February 15, 1984 and May 21, 1984. Commission Exhibits 12 and 69; Board Exhibit #5.

Criterion (1) (B)

15. We find that the stormwater collection, treatment, and discharge system proposed by Fairfield complies with applicable Water Resources Department Regulations in view of AEC's issuance of the Temporary Pollution Permit. We further find that in view of the filtration systems through

^{/4/}The original basin design called for the excavation and removal of all wetland vegetation. A revised plan (I-1000 Exhibit #4) retains the same basic design as the original but will preserve existing vegetation within the berm area.

which stormwater will flow prior to entering the detention basin and prior to exiting the detention basin, the project will not involve the discharge of waste materials to groundwater or wells. Finally, we find that discharge of stormwater by the method proposed will not result in undue water pollution.

16. However, we further find that the alternative findings we reach in paragraph 15 are dependent upon rigorous maintenance of the basin. In view of Fairfield's intention of retaining existing vegetation within the basin, we find that Fairfield has not demonstrated an ability to perform regular maintenance activities such as the removal of accumulated sediment and periodic cleaning or replacement of filter material on the face of the berm.
17. We also find that Fairfield has not adequately demonstrated that the basin will remain undisturbed by the effects of Lake ice and wave action. Because the base of the basin lies within 15 feet of the Lake's mean high water mark and is little more than two feet in elevation above that mark, we find that the berm may be subjected to the destructive impacts of ice and waves.
18. We, therefore, find that while the stormwater treatment design submitted by Fairfield fulfills the requirements of Criterion 1(B), Fairfield has not met its burden of submitting sufficient evidence to support a finding that the basin will continue to function as designed on the lakeshore lot. We will require as a condition of our permit that the basin be located outside of the lakeshore area.

Criterion 1(D)

19. The 100 year flood level in the vicinity of the lakeshore lot is 101'. Therefore, construction of the berm as proposed by Fairfield would involve development of lands within a floodway: the elevation of the interior base of the detention basin is approximately 99.25'.
20. Under current circumstances, during periods of flood, water from Lake Champlain flows northward into the wetland area which would be occupied by the detention basin and then flows westerly to the rear of residential lots located adjacent to the lakeshore lot. Construction of the detention basin berms would divert this flow of floodwater, preventing the historical northward flow of floodwater. However, we find that this diversion would not endanger the health, safety or welfare of the public or riparian owners during flooding. The berm system may in fact enhance the welfare of adjoining landowners by preventing the incursion

of floodwaters onto the northern portion of lots westerly of the lakeshore lot.

21. However, in view of our findings under Criteria 1(B), 1(E), 1(F), and 8, we will require relocation of the basin and maintenance of the lakeshore lot in an undisturbed state. Therefore, upon compliance with Condition #31 of the permit we now issue, the project will not involve the development of lands within a floodway or floodway fringe.

Criterion 1(E)

22. A **small** stream now flows southerly from the adjacent Wick **property**, through a culvert under Appletree Point Road, at which point the stream broadens into a wetland area. After a distance of approximately 200', the wetland narrows to a stream channel which flows across a sandy beach apron into **Appletree** Bay. Board Exhibit #6.
23. Fairfield will construct a new **headwall** on the north side of reconstructed Appletree Point Road to collect the stream channel. A new 36" culvert would convey the stream under the roadway to a point east of the new detention basin. The stream would continue from this point through a 30" culvert to a point on the easterly-most edge of the detention basin rip-rap apron where it would discharge to **the** Lake. Board Exhibit #4. Stormwater from the project area will not enter the stream channel.
24. The channelization of the stream through a culvert does not **constitute** maintenance of the stream in its natural condition. Furthermore, Fairfield has not submitted 'evidence that feasible alternatives to culverting the stream have been considered. However, the requirements of Criterion 1(E) will be satisfied by the relocation of the detention basin: the stream can be maintained in its natural condition if the basin is not constructed on the lakeshore lot.
25. Finally, we find that the watercourse identified in Finding #22 is the only stream affected by the Fairfield project.

Criterion 1(F)

26. Fairfield proposes to locate its stormwater detention basin on the Lake Champlain shoreline. Because the project will introduce substantially more impervious surfaces than currently exist at the site (i.e., roadways, parking areas, court surfaces, **roofs**, etc.), stormwater runoff **must** be collected, treated and discharged. Furthermore, Fairfield has agreed with **CARA** to collect stormwater from the westerly leg of Curtis Avenue, alleviating a periodic flooding problem experienced by residents of that development.

27. In view of existing natural flow patterns on the premises (see Finding #9, above) and the Permittee's purpose of properly collecting, channeling and treating stormwater, the detention basin must of necessity be located in the southeast corner of the premises near Lake Champlain. **However**, we find that the basin need not be located directly on the shores of Lake Champlain to achieve these purposes.
28. Furthermore, we find that the shoreline is not likely to be retained in its natural condition during the construction of the 160' long, 5' high and 50' basin face. Fairfield would continue to maintain access to the Lake and extensive landscaping (see Finding #33, below) would screen the housing portion of the project from the shore. However, as we stated in Finding #17, above, we are unable to find that the basin design is sufficiently protected from the eroding impacts of ice and wave action.
29. We will, therefore, require as a condition of our permit that the basin be relocated to a site not adjacent to the Lake Champlain shoreline.

10 V.S.A. §6086(a) (8) - Wildlife Habitat and Aesthetics

30. The detention basin will be located within an existing wetland area which provides a home to snapping turtles, beach peas, and other animal and plant species. Our visit to the area confirmed the site as one of great natural appeal. However, the record does not reveal the presence of any "endangered species" as that term is defined by 10 V.S.A. §6001(5). We also find that the area does not qualify as a "necessary wildlife habitat" as defined by 10 V.S.A. §6001(12) because the area is not decisive to the survival of a wildlife species.
31. However, we find that the wetland is a "rare and irreplaceable natural area" in view of its historical origins and the proliferation of different species of vegetation. Very few habitats with similar characteristics exist in the state and this wetland could serve as a valuable natural resource to residents of the Fairfield **project** and the Burlington area. While the wetland has evolved over the years under the influence of man, the wetland could not readily be replaced.
32. Construction of the four-sided berm directly within the wetland area will result in substantial disturbance of the habitat. Any maintenance activities within the berm area would also periodically disturb the wetlands. Finally, while swales and settling basins should be successful in removing most foreign materials from stormwater, those

devices will not prevent the deposit of sand, silt, oils and other materials in the wetland. We must, therefore, find that placement of the stormwater basin in the wetlands area will have an undue adverse effect on a rare and irreplaceable natural area.

33. Any development of the Fairfield tract will detract from the existing natural beauty of that parcel. However, Fairfield's proposal has been developed with sensitivity to the aesthetics of the area and the uses of surrounding lands. The perimeter of the project will be lined with single family residential lots of 15,000 square feet or larger. Multi-family units located in the interior of the tract will be clustered to maximize green space. Fairfield's landscaping plans will provide extensive vegetative screening. See Exhibits #27A, #28A, #28B, #29A, #30A, #31A, #32A, and #33.
34. We, therefore, find that the project will not have an undue adverse effect on the aesthetics and the scenic and natural beauty of the area.

10 V.S.A. §6086(a) (5) - Traffic

35. Vehicles destined for the Fairfield project will travel from North Avenue via Staniford Road to Appletree Point Road. Appletree Point Road will be reconstructed by the Applicant, beginning with the westerly terminus of Staniford Road and extending to the project site's westerly line. This road, together with five access roadways within the development itself (Cumberland Road, Edinborough Drive, Muirfield Road, Westminster Drive, and Nottingham Lane) will be constructed to city road standards for ultimate dedication as city streets. Internal driveways to clusters of housing units will be owned and maintained by condominium associations.
36. Staniford Road is 30' wide, has authorized parking on both sides of the street, a pedestrian sidewalk on the north side, and a stop sign at its intersection with North Avenue. Staniford is lined with single family residences and currently experiences 1,600 to 2,200 vehicle trips per day. This road has a design capacity of up to 10,000 vehicle trips per day ("VTPD").
37. Using trip generation rates recommended by the Institute of Transportation Engineers, Fairfield estimates that the project when completed will generate 1,800 VTPD, and 170 trips will be generated during the evening peak hour. In respect to the first phase of the project only (10 single family, 30 condominium units), Fairfield estimates that 256 VTPD will be generated with a peak hour (evening) of 25.

For the first two phases (18 single family and 57 condominium units), Fairfield estimates that 476 VTPD will be generated with a peak hour of 74 trips.

38. In the vicinity of North Avenue, the actual current daily traffic is approximately 16,000 vehicles and the peak hour volume is approximately 1,500 vehicles. However, the daily volume figure can vary by as much as 11% on a weekly basis. Therefore, traffic added to the North Avenue flow from the project's first phase will increase current volume only 1.6% and the increase attributable to the first two phases will be 2.9% above current flow. When completed, the project would increase North Avenue flow 11.3% above current levels.
39. North Avenue is a high hazard roadway with an accident rate twice the state-wide average. This high rate is attributable to the large number of curb cuts and side streets entering North Avenue and the nature of land uses abutting the roadway. However, fewer intersection accidents have occurred at Staniford Road than other intersections along North Avenue.
40. Traffic seeking to enter North Avenue from Staniford Road occasionally stacks up at the intersection, especially during morning rush hour. This queuing condition is exacerbated by the lack of separate left and right turn lanes. Furthermore, during rush hour, the "gaps" between vehicles travelling north and south on North Avenue tend to be short, necessitating quick entry into the traffic flow. Finally, traffic conditions at the intersection are disrupted by the presence of a small grocery directly across from Staniford Road on the east side of North Avenue.
41. North Avenue currently operates at level of service "C," a condition representing less than optimum traffic flow. A large portion of current North Avenue traffic consists of vehicles entering Burlington from Colchester destined for downtown. The so-called "Northern Connector" is now under construction. When completed, this roadway will gather traffic from Route 127, north of the Burlington-Colchester town line and channel the traffic southerly on a new two lane highway to the existing **beltline** in the Intervale, allowing vehicles to by-pass the congested North Avenue **area**. Construction of the Connector has on more than one **occasion** deviated from schedules established by the City and the Agency of Transportation.
42. When completed, the Connector will reduce North Avenue traffic approximately 44%. Upon completion and occupancy of Fairfield's first two phases, and assuming the Connector

is completed, the North Avenue level of service should rise to "B" a stable traffic flow condition. By 1992, when the Fairfield project is completed, and assuming a 1.5% increase in traffic flow (not including trips generated by the Fairfield project), the North Avenue level of service will again drop to "C."

43. The Staniford Road-North Avenue intersection now operates at level of service "D," principally because of the vehicle stacking referred to in Finding #35. Fairfield has agreed with the City to assume financial responsibility for the addition of a 100' long third lane on Staniford Road to allow separate left and right turns onto North Avenue. The addition of such a lane will prevent left-turning vehicles from impairing the movement of right turning vehicles. With this addition, the intersection will remain at level of-service "C" but its operation should improve. In 1992, assuming Fairfield completes its project and the Northern Connector is completed, the intersection will remain at "C" during the A.M. peak hour but will fall to "D" during the P.M. peak.
44. Construction of Phase I will not start until Spring, 1985 and units will not be available for occupancy until Fall, 1985. Fairfield stipulated before the Board that it would defer phases II through VI until completion of the Connector. In any event, Phase II construction will not commence until 1986. The zoning permit issued Fairfield by the City bars construction beyond the first two phases until after the Northern Connector has opened. Exhibit #7. Completion of all seven phases will take between six and seven years, assuming construction is not delayed by the unavailability of the Northern Connector. Exhibit #73.
45. We find that the project as proposed will not cause unreasonable congestion or unsafe conditions with respect to the use of Staniford Road or North Avenue. This finding is dependent upon accomplishment of the following:
 - a. improvement of pedestrian signing and crosswalks along Staniford Road at North Avenue, Stanbury Road and west of the bike path;
 - b. removal of vegetation and geometric modification of Staniford Road just west of the bike path;
 - c. restriction of Staniford Road parking to one side of the street;
 - d. addition of a 100' long third lane at the Staniford Road-North Avenue intersection;
 - e. no construction beyond the first phase until the Northern Connector is open to traffic.

46. Traffic estimates submitted by Fairfield rely to some extent on speculation: it is difficult to predict in 1984, in respect to a project not to be completed until 1992, what rate of traffic growth will be experienced on North Avenue, what impact the Northern Connector will have, precisely how much traffic will be generated by the Fairfield project, and what new traffic will be generated by other North End development. Our finding that the project will not cause unreasonable congestion or unsafe conditions with respect to highways is dependent upon Fairfield conducting continued traffic monitoring and assisting the City in implementing additional corrective measures should on-going analysis demonstrate a need for further action. We will condition our permit accordingly.

10 V.S.A. §6086(a) (9) (J) - Public Utility Services

47. Fairfield has agreed to install a reduction valve at any interconnection between the project water system and the Appletree Point water system. We, therefore, find that the project will not adversely affect the latter utility.

10 V.S.A. §6086(a) (9) (K) - Public Investments

48. Based upon our findings concerning Criterion 1 (Findings #9-#29) and Criterion 5 (Findings #35-46), and based upon Condition #31 of the permit we now issue, we further find that the proposed development will not unnecessarily or unreasonably endanger the public investment in Lake Champlain or the Staniford Road and North Avenue roadways, and that the project will not materially jeopardize or interfere with the function, efficiency, or safety of, or the public's use or enjoyment of or access to the Lake and the roadways.

10 V.S.A. 56086(a) (6) - Educational Services

49. Households in the North End of Burlington average .5 children per home. Assuming this average will prove accurate for the Fairfield development, approximately 20 children will live in each Phase of the development, or a total of 140 children in the completed project. In view of the phasing of the development (a range of from 31 to 58 new housing units per year over 6 or 7 years - Exhibit #70), school age children will be gradually added to the Burlington school system.
50. At the School Superintendent's recommendation, Fairfield has agreed to provide for the movement of students to area schools by installing sidewalks the full length of Appletree Point Road and Starr Farm Road as well as a walkway to the Curtis Avenue development. Fairfield has

further agreed with the Superintendent's request that occupants of housing units in the development be notified in advance that, because the school system does not provide student transportation, parents will be responsible for assuring delivery of children to area schools.

51. The School Superintendent has expressed concern about the potential capital expense burden on the school system which could occur should additional classroom space be required as a result of student population growth attributable to the Fairfield development in conjunction with other residential development in the North End. Exhibit #51. Property taxation is the traditional method for securing educational expense contributions from current and future residents. Substantial tax revenues will be generated through the construction of the Fairfield project.
52. The burden under Criterion 6 lies with parties opposing the application. The only evidence submitted by SCI under Criterion 6 was Exhibit #51. We find that this evidence, without more, is insufficient to justify imposition of a capital expense contribution by Fairfield.^{/5/} We find that the project will not cause an unreasonable burden on the municipality to provide educational services.

10 V.S.A. §6086(a) (7) - Governmental Services

53. In view of our findings concerning Criterion 5, we further find that the project will not place an unreasonable burden on City street services. This finding is subject to the same conditions outlined in Findings #45 and #46. We further find that the installation of coordinated traffic control devices along North Avenue is not an appropriate requirement at this time. With the limitation of parking to one side of Staniford Road, no corridor widening is necessary, aside from the addition of a third turning lane at the North Avenue intersection, an improvement which will be the responsibility of the Applicant, not the City. Nor does the record support a need to widen North Avenue at the present time. In an effort to anticipate future traffic needs, we have required that Fairfield perform on-going traffic analysis.-

^{/5/}We do not find that the imposition of such a requirement is inappropriate in all cases. Quite to the contrary, the reference in 10 V.S.A. §6086(c) to the requirements which may be imposed by municipal planning commissions under 24 V.S.A. §4417 suggests that a contribution requirement is permissible. We only find that the record in this case does not support such a condition.

54. We previously found under Criterion 6 (Findings #49 and #52) that the project will not impose an unreasonable burden on educational services. Based upon those findings, we further find that the project will not impose an unreasonable burden on the City to provide education as a municipal service.
55. We have previously found under Criterion 1 (Findings #9-#29) that the project will not result in undue pollution of Appletree Bay. Based upon those findings, we further find that there will be no cost imposed upon the City to correct adverse impacts arising from the discharge of stormwater to Appletree Bay.
56. The City has informed the Applicant of its ability to respond to the solid waste disposal needs of the project. Exhibit #56. The City has further informed the Applicant that its Police Department is able to serve the Fairfield development and has identified no adverse impact on the Department arising from the development. Exhibit #57. The burden under this Criterion being on opponents and SCI having offered no evidence concerning police or solid waste services, we find that the project will not unreasonably burden these two governmental services.

10 V.S.A. §6086(a) (9)(C) - Secondary Agricultural Soils

57. Soils on the project site are predominantly Au Gres fine sandy loam. Exhibit #58. The United States Department of Agriculture, Soil Conservation Service ("SCS") identifies slow surface water runoff and a water table ranging from the ground's surface to a depth of three feet as characteristics of Au Gres soils. SCS indicates that this condition of wetness represents a limitation to the operation of farm machinery. The general characteristics identified by SCS exist on the project site.
58. The project site has been hayed in the past and was also used as a cattle grazing area. However, neither of these two uses has proven commercially feasible to prior owners.
59. We, therefore, find that the soils on the Fairfield site do not qualify as "primary agricultural soils" because they are not sufficiently well drained to allow sowing and harvesting by mechanized equipment. We further find that the soils do not qualify as "forest and secondary agricultural soils" because the natural wetness of the site is a severe limitation to agricultural use and because historical use cannot support a finding that the site has a reasonable potential for use in commercial agriculture.

10 V.S.A. §6086(a) (10) - Municipal Plan

60. The Municipal Development Plan for the City of Burlington adopted May 21, 1979 ("**City Plan**"), includes a "**North End Policy**" which provides in part:

North Avenue is also not appropriate for increased traffic volume and shall not be considered for greater capacity. The North End should be developed at low density. Exhibit #63, page 12.

This North End Policy was intended to prevent a worsening of North Avenue traffic conditions during the interim period when the Northern Connector was under construction. Exhibit #75.

61. The Northern Connector is now scheduled for completion in the Fall of 1985. Only the first phase will be available for occupancy before the Connector is completed. As we previously found, Fairfield expects that 256 daily vehicle trips will be generated by the first phase with a peak hour maximum of 25 trips. Because daily traffic flow on North Avenue can vary by as much as 1,750 vehicle trips, we find that 256 trips does not constitute a cognizable increase in North Avenue traffic volume within the meaning of the City Plan and the clarification of the North End Policy found in Exhibit #75.
62. The term "**low density**" is not defined in the City Plan. However, the City's zoning ordinance defines the term to mean not in excess of six units per acre or 10,000 square feet per unit. Fairfield's proposal of 290 units on 77 acres is an average of 3.76 units per acre, a substantially lower density than that permitted under the zoning ordinance definition. We, therefore, find that the project is "**low density**" as contemplated by the North End Policy.
63. The City Plan also encourages the preservation of existing neighborhoods and the protection of those neighborhoods from traffic congestion, inadequate parking and the invasion of through traffic. The Fairfield proposal will establish a neighborhood similar in character and density to those which surround the project site. Furthermore, Fairfield will install public recreational facilities available to all residents of surrounding neighborhoods. The quality of the Curtis Avenue neighborhood will be improved by Fairfield's agreement to correct existing stormwater drainage problems. The Appletree Point neighborhood will benefit from the improvement of Appletree Point Road, the maintenance of that road by the City and

However, we also found (Finding #8) that the North End has experienced sewer system infiltration problems and that Fairfield has agreed to assume its fair share of the cost of investigating the cause of this problem and implementing a solution. We will, therefore, condition our permit to assure fulfillment of this agreement.

Criterion 1(B)-(D)-(E)-(F) - Stormwater Treatment and Disposal

We have found that Fairfield will channel surface water runoff into grassy swales which will serve to attenuate stormwater flow and provide filtration. Furthermore, water will be collected from paved areas by catch basins which will remove floatable and settleable solids. Finally, stormwater will be filtered as it leaves the stormwater detention basin before discharge into Appletree Bay. We conclude that this stormwater treatment system complies with applicable Department of Water Resources Regulations.

However, we have found that Fairfield failed to demonstrate that the stormwater berm system would be adequately maintained such that the treatment system would continue to operate as designed. We also found that the berm's location in close proximity to Lake Champlain raised questions concerning the impact of wave and ice action on the structural integrity of the basin. We must, therefore, conclude that installation of the basin in the proposed location could result in an operational failure of the stormwater treatment system, resulting in undue water pollution or the discharge of waste materials to ground water. As a result of this conclusion, we will require as Condition #31 of the permit we now issue that the basin be relocated outside of the lakeshore lot area.

We also conclude that relocation of the basin will eliminate any construction within the Lake Champlain floodway and floodway fringe, ending the need for further consideration of the requirements of Criterion 1(D). Fairfield's proposal to culvert an existing stream would not maintain that waterway's natural condition and Fairfield failed to indicate whether or not feasible alternatives exist. However, we conclude that relocation of the basin pursuant to permit Condition #31 will eliminate the necessity of disturbing the stream and we further conclude that construction of the project in conformance with Condition #31 will result in maintenance of the stream in its natural condition. Finally, the Fairfield proposal would not maintain the Lake's natural condition, the basin would not be protected against the eroding effects of the Lake, and Fairfield has not demonstrated that the basin must of necessity be located on the Lake Champlain shoreline. We will require relocation of the basin for these additional reasons.

Criterion 8 - Wildlife Habitat and Aesthetics

We conclude that the wetlands area on the shoreline lot constitutes a rare and irreplaceable natural area: the wetland is home to a large variety of animal and plant species, it is a discrete habitat with slowly evolving historical origins, it is one of few remaining natural areas of its kind and it would not be readily replaced. We also conclude that the destructive impacts of berm construction, basin maintenance and deposit of foreign materials would have an undue adverse effect on the natural area. Relocation of the basin is required to support an affirmative conclusion under this Criterion.

The project will not have an undue adverse effect on the scenic and natural beauty of the area because it has been designed at a density consistent with surrounding neighborhoods, and extensive landscaping will be implemented.

Criterion 5 - Traffic

We have found that North Avenue together with its intersection with Staniford Road are now operating at level of service "C." We found that upon completion of the Northern Connector, traffic conditions on North Avenue will substantially improve. The North Avenue-Staniford Road intersection experiences peak hour problems of vehicle stacking and short "gaps" available to vehicles entering North Avenue. The operation of the intersection will also improve with the completion of North Avenue.

The Applicant has agreed to defer any construction after the first phase until the Northern Connector is open to traffic. Based upon this stipulation, the minimal traffic to be generated by the first phase will not cause unreasonable congestion or unsafe conditions with respect to North Avenue. We also conclude based upon Fairfield's traffic projections that upon completion of the Connector, the full seven phase project will not cause unreasonable congestion or unsafe conditions with respect to this roadway. However, because these conclusions are based upon somewhat speculative predictions of future conditions and impacts, we will require by condition that Fairfield continue to conduct an evaluation of traffic conditions as the project proceeds and work jointly with the City to implement traffic control measures necessary to maintain safe, **uncongested** traffic conditions.

We also conclude that congestion and unsafe conditions will not be created on Staniford Road if the limitations identified in Finding #40 are satisfied and we will condition our permit accordingly.

Criterion 8 - Public Investments

Because public investments issues raised by the parties pertain to impacts on roadways and Lake Champlain, we incorporate by reference here our conclusions regarding Criteria 1 and 5. Based upon those conclusions and the findings which support those conclusions, the project will not materially jeopardize or interfere with the function, efficiency, or safety of, or the public's use or enjoyment of or access to Lake Champlain and the roadways at issue in this appeal.

Criterion 6 - Educational Services

We found that Fairfield has agreed to provide means of pedestrian movement for school children and will notify prospective residents of the project that the City can assume no responsibility for transportation of school children. We conclude that substantial tax revenues will be available after construction of the project to help support the Burlington school system. We cannot conclude, based upon the meager evidence presented by opponents under this criterion, that an exaction to defray possible future school system capital improvement expenses is reasonable. We conclude that the project will not place an unreasonable burden upon the City to provide educational services.

Criterion 7 - Governmental Services

We previously found that the project will not impose unreasonable burdens on City streets, or educational services. We found that the project will not cause undue pollution of Appletree Bay and that the project will not burden City police or solid waste disposal services. We conclude that Fairfield's project will not impose an unreasonable burden on governmental services.

Criterion 9(C) - Secondary Agricultural Soils

We found that the Au Gres soils on the project site are characterized by the presence of a high water table and are poorly drained. We also found that agricultural operations on the site in the past were not commercially viable. We therefore conclude that the soils do not qualify as either primary or secondary agricultural soils. By virtue of this conclusion, we need not move on to a consideration of the subcriteria of Criteria 9(B) or 9(C).

Criterion 10 - Municipal Plan

In our review of the City Plan, three components were deemed relevant to a consideration of the Fairfield project under Criterion 10. First, the project conforms with the North

End Policy, as amplified by resolution of the Burlington City Council, in that the minimal traffic to be generated by the first phase does not constitute a significant increase cognizable under the Policy and the development is low density in character. Second, the Fairfield proposal does not interfere with the Plan's goal of preserving existing neighborhoods: it has been designed to reflect the nature of adjacent neighborhoods, it will ameliorate conditions in some existing neighborhoods, it will not interfere with the availability of adequate parking, and it will not alter Staniford Road's existing character as a collector street carrying traffic from adjacent local streets to North Avenue.

Finally, the project will provide new housing to a depleted City housing stock in conformance with the housing component of the Plan. We conclude that the project is in conformance with the City Plan.

Issuance of Land Use Permit

In accordance with these Findings of Fact and Conclusions of Law, the Board will issue Land Use Permit #4C0570-EB. This amendment will approve the project subject to conditions pertaining to the issues presented on appeal. All Findings of Fact, Conclusions of Law and conditions issued by District #4 Environmental Commission in #4C0570, dated March 20, 1984, concerning all remaining issues and criteria identified in 10 V.S.A. §6086 (a), remain in full force and effect.

Based upon the foregoing Findings of Fact and Conclusions of Law, we conclude that the project described in the application referred to above, if completed and maintained in **accordance** with all the terms and conditions of that application and Land Use Permit #4C0570-EB, as amended herein, will not cause or result in a detriment to public health, safety or general welfare under the criteria described in 10 V.S.A. §6086 (a).

V. Order

Land Use Permit #4C0570-EB is hereby issued in accordance with the Findings of Fact and Conclusions of Law herein. Except as expressly stated in conditions attached by the Board in the issuance of its permit, jurisdiction is hereby returned to the District #4 Commission.

Dated at Montpelier, Vermont this 29th day of August, 1984.

ENVIRONMENTAL BOARD

By: Melvin H. Carter
Melvin H. Carter, Vice Chairman

Members participating in
this decision:

Ferdinand Bongartz
Lawrence H. Bruce, Jr.
Melvin H. Carter
Donald B. Sargent
Dwight E. Burnham, Sr - dissenting