The following Town Departments, Boards and Committees submitted comment letters to the Zoning Board of Appeals on the Thorndike Place Comprehensive Permit Application. Letters are attached in order.

- 1. Conservation Commission
- 2. Redevelopment Board
- 3. Board of Health
- 4. Transportation Advisory Committee
- 5. DPW/Engineering
- 6. Fire Department
- 7. Inspectional Services
- 8. Open Space Committee
- 9. Arlington Land Trust (an independent non-profit corporation)



TOWN OF ARLINGTON

MASSACHUSETTS

CONSERVATION COMMISSION

September 26, 2016

Zoning Board of Appeals Town of Arlington 730 Massachusetts Avenue Arlington, MA 02474

RE: Thorndike Place – Application for Comprehensive Permit

Dear Ms. Heidell and Members of the Board:

The Arlington Conservation Commission (hereinafter "ACC") has reviewed Arlington Land Realty LLC's (the "Applicant") Comprehensive Permit Application, filed with the Town on or about August 31, 2016 (the "Application") and offers the following comments for the Zoning Board's consideration.

SUMMARY OF COMMENTS

The Applicant needs to provide:

- an updated wetlands delineation;
- an updated flood plain delineation;
- stormwater calculations;
- a wildlife habitat evaluation;
- a more detailed and specific request for waivers;
- what specifically it means by terms such as "green landscaping" and "rain gardens";
- more information about landscaping and tree removal, including details of proposed mitigation in relation thereto; and
- an updated traffic impact study.

Once the above information is provided, a peer review consultant should be engaged to review:

- Wetland delineations
- Flood plain delineations
- Stormwater information and calculations
- Traffic Impact Study

Introduction

The ACC comments from two perspectives or capacities. First, in its regulatory role, as the usual administrators of the state's Wetlands Protection Act, G.L. c. 141, s. 30 (the "Act" or "WPA") (and implementing regulation) and the Town of Arlington Wetlands Protection Bylaw, Title V, Article 8 (the "Bylaw") (and implementing regulations dated approved June 4, 2015). Second, pursuant to its broader duties under Massachusetts G.L. c. 40, s. 8C to promote and protect the Town's natural resources and watershed.

Pursuant to the Comprehensive Permit law, Mass. Gen. Laws ch. 40B, the Zoning Board will be administering the Bylaw (not the Act) when reviewing the Thorndike Place application. We thus provide the following background information and comments.

I. Wetland Resource Areas including Floodplain

As you may know, under state and local wetlands laws and regulations, anyone wishing to do work in or near areas called "wetland resource areas" must first receive permission of the ACC. Wetland resource areas include swamps, bogs, meadows, forested wetlands, vernal pools, and also streams, rivers, ponds, lakes, banks of those water bodies, land within 100 feet of those areas, and the 100-year floodplain¹. State and local regulations define each of these areas including their boundaries.

Arlington Town Meeting many years ago adopted the Town of Arlington Wetlands Protection Bylaw ("Bylaw") to protect more areas than protected under the Act and to provide greater protection of those areas. The Bylaw is administered by the ACC. The ACC has adopted regulations to complement and implement the Bylaw. We attach a copy of the ACC's June 5, 2015 wetland regulations, which implements and interprets the Bylaw.

Wetland resource areas provide many important functions and values, such as public or private water supply, ground water supply, flood control, erosion control and sedimentation control, storm damage prevention, other water damage prevention, prevention of pollution, protection of surrounding land and other homes or buildings, wildlife protection, plant or wildlife habitat, aquatic species and their habitats, and the natural character or recreational values of the wetland resources.

The purpose of the Act and Bylaw are to protect these areas so they can continue to provide these functions and values.

¹ The 100-year floodplain is often described generally as an area which is expected to flood once every one hundred years. Another way it is described is as the area that has a 1% chance of flooding once a year.

A. Wetland Areas On Project Site Should Be Delineated

Updated wetland resource area delineations are necessary to evaluate the project. Additionally, we recommend a peer review of the Applicant's wetland resource area delineation.

The wetland resource areas identified so far on the Thorndike Place application are:

- 1. bordering vegetated wetlands (called "BVW"),
- 2. isolated wetlands (protected under Bylaw only),
- 3. areas within 100 feet of BVW and isolated wetlands, called either:
 - a. Buffer Zone (under the Act);
 - b. Adjacent Upland Resource Area (under the Bylaw); and
- 4. the 100-year floodplain (also called "bordering land subject to flooding" or "BLSF").

We know from the Application as well as prior proceedings concerning the Mugar property that wetland resource areas are extensive on the site. Even the developer acknowledges this (see pp. 16 of Application).

However, there is no current legally valid delineation under either the Act or Bylaw of the boundaries of these resource areas. The Applicant acknowledges this. See note 6 on plan C-1.0, "Existing Conditions" plan, Borrego Solar, D. Albrecht, 2/24/15 and Note 8, plan C-2.0 Overall Site plan, Borrego Solar, D. Albrecht, 2/24/15. The Applicant has not yet filed the necessary application with the ACC to receive such determinations of the locations of the wetland resource area boundaries.

Because so much of the Mugar property consists of wetland resource areas, it is difficult for the ZBA or the ACC to review the project unless the wetland resource areas are delineated. For example, the southeast corner of the proposed apartment building is very close to the BVW shown on the project plan (see Sheet C.1.0A, "Existing Conditions plan" showing proposed structures over existing conditions), but the border of that BVW has not been approved by the ACC under state and local wetland laws, so its location is not set. If the boundary of the BVW is in fact farther to the west, that could require a change to the building footprint to move it outside of the BVW, which in turn could change other aspects of the proposed project.

B. Regulation of Work In and Near Resource Areas - "Performance Standards"

Once the resource area boundaries are known, then the question is whether the work in those areas meets specific requirements. Work must meet the requirements of the Act and Bylaw.

The state and local wetland regulations contain standards to determine whether work can be done in each resource area, and, if so, under what conditions. An applicant has the burden of proving that the proposed work meets the applicable standards, often called "performance standards". If the ACC determines it does, then work could be allowed in those areas provided the ACC can impose conditions to ensure the resource areas are protected. As noted above, the performance standards

under the Bylaw and its regulations are stricter than those under the state Act and regulations. Each of the above-listed resource areas have unique requirements that must be met.

Since the ZBA is responsible in the Comprehensive Permit process for administering the Town's Wetlands Protection Bylaw (but not the wetlands protection act which remains the ACC's jurisdiction under state law), we provide the following table that outlines the applicable performance standards under the Bylaw and its regulations, has the citation to the town's wetland regulations, and notes how the state wetlands standards differ, if at all:

Resource Area	Standards (summary) in Town Bylaw or Regulations	Citation to Town Bylaw or Regulations	How Town standard differs from state standard
Bordering Vegetated Wetland (BVW)	No work allowed in wetlands though can allow up to 5,000 sq. ft. be lost if replicated at 1:2 ratio (lost to replicated)	Section 21 of town wetland regulations	Only 1:1 replication required
Wetland (isolated)	Same as above	Section 21 of town wetland regulations	State does not protect these areas
100-foot Adjacent Upland Resource Area	No work within 25 feet; work within 25- 100 feet shall be avoided and alternatives pursued – allowed only if no reasonable alternatives; no structures within 50 feet	Section 25 of town wetland regulations	State standards less protective; State calls this area the "Buffer Zone"

Bordering Land Subject	Prohibits work that	Section 23 of town	- Boundary definition
To Flooding (BLSF 100-	will:	wetland regulations	differs
year Floodplain)	1. Cause flood damage		- Compensatory
	due to lateral		flood storage
	displacement of		requirement of only
	water;		1:1 where town
	2. Adversely effect on		requires 1:2 (lost
	public and private		vol:created vol)
	water supply or		
	groundwater supply,		
	or		
	3. Cause an adverse		
	effect on the capacity		
	of said area to prevent		
	pollution of the		
	groundwater.		
	Compensatory flood		
	storage allowed at 1:2		
	(lost vol:created vol)		

While wetland boundaries have not been updated, it looks like some portions of roadways, parking areas, and other infrastructure may be within wetland resource areas, especially isolated wetlands. The proposed trails in the 11+ acre area proposed for conservation are near or possibly in wetlands; therefore, the placement of these trails also need to be evaluated once the wetland boundaries are updated.

Portions of buildings are within BLSF and the Applicant has not shown it meets compensatory flood storage standards.

C. <u>Vegetation Removal and Replacement Requirement</u>

Trees and vegetation to be removed must be counted and replaced and additional details on landscaping plans need to be provided

Applicable to work in all local wetland resource areas is the requirement that any vegetation removed or extensively pruned cannot be done without permission of the ACC and "in-kind replacement". Section 24 of the town wetland regulations details this requirement. "In-kind replacement":

Refer[s] to a combination of species type and surface area as defined by the area delineated by the drip line of the affected plant(s). "In-kind" means the same type and quantity of plant species that was removed, extensively pruned, or damaged, unless compelling evidence is presented in writing that explains why the resource area values under the Bylaw are

promoted through an alternative proposal (such as biomass equivalent), and planted within the same resource area or another resource area located in close proximity on the project site. Notwithstanding the foregoing, only non-invasive plant species shall be planted as replacements.

Section 24.C. The Applicant must provide specific information, including but not limited to the reason for removal and a detailed planting plan showing the location, size, and species of vegetation to be removed as well as the proposed replacements.

The Application does not include sufficient information to evaluate adequate replacement of the trees and other vegetation planned to be removed.

While a landscaping plan is provided, it needs to show the species, numbers, locations and care instructions of all plants in the design. The Applicant needs to describe how these plantings will compensate for the numbers, density, species and variety of vegetation that will be removed for the Project.

Plan sheet C-1.0B "Existing conditions" plan, updated 8/12/15, shows tree counts for removal, with "T" numbers. There are hundreds of trees planned to be removed. It is not clear where the required mitigation for these trees is going to be planted. They cannot be placed in the adjacent resource areas as these are currently occupied by trees.

D. Stormwater

The applicant must provide additional information so that stormwater management can be evaluated. Additionally, we recommend a peer review of stormwater information and calculations, when details are provided by the Applicant.

The ACC reviews, in coordination with the Engineering Department, stormwater management during its review of projects under the Act and Bylaw. The state (MassDEP) has stormwater management standards that apply under the Act and the Bylaw. The Town Engineer implements the Town's stormwater Bylaw, so we defer to him for compliance on that.

The ACC cannot determine whether the Thorndike Project meets the Stormwater Management Standards, because the Applicant has not submitted the necessary detailed stormwater management analysis that includes results of computer modeling using HydroCAD software. Such modeling is required for the 2-year, 10-year, and 100-year storm events. Also, no groundwater information has been provided.

The Application does not include this required stormwater information.

Based on the limited information provided, we have the following comments:

- 1. The project design does not appear to reflect consideration for environmentally sensitive areas such as wetlands.
- 2. The Applicant should undertake a more comprehensive environmental evaluation before the project is considered.
- 3. Sufficient hydrologic testing should be conducted to ensure that this project will not adversely impact water levels in the adjacent wetland area, sanitary sewage system, and neighborhood already stressed from flooding events.
- 4. The Applicant should provide calculations showing the foot-per-foot basis for the proposed compensatory flood storage; that is, for each cubic foot filled at each foot of elevation, there will be replacement storage volume created for each volume lost at the same elevation at the ratio required by the Act (1:1) and the Bylaw (2:1).
- 5. For the proposed Bioretention Cell The Applicant should provide details of this feature on the plan.
- 6. Northeast corner berm This proposed mitigation is within the floodplain, so will not function properly as it already will be full of water during a flood event.
- 7. Other areas marked on the Sheet C-4.1, "Grading and Drainage" as compensatory flood storage are located in the floodplain, so will not function properly as it already will be full of water during a flood event.
- Another area marked as flood compensation areas is located in a wetland, on Sheet C Grading and Drainage plan. This will further impact natural resources and not function as storage during a flood event.

E. Requested Waiver

The Applicant should provide details / specifics on waivers requested. The ACC recommends that no waivers of local wetland requirements should be granted.

We urge the ZBA not to grant any waivers of the Bylaw or town wetland regulations because of the importance functions provided by the wetland resource areas on the Mugar property. There is a history of major flood events in this part of Arlington that causes extensive property damage. Floodwaters contain sewage from Combined Sewer Overflow ("CSO") discharges. Flooding in this part of town is a major concern of local residents. Prevention of additional flooding is a valid "Local Concern" (as defined in 760 CMR 56.02) that warrants denying waivers of the Bylaw and local wetland regulations.

Furthermore, the Applicant's table of waivers requested is unclear and includes missing information and references to other towns. The Applicant should provide specifics on the waivers

requested here. In addition, we find the Applicant's requested waiver of the consultant fee provision to be confusing. Because the consultant fee assessed equals the price of the selected peer reviewer's contract, we do not understand how a portion (25%) of that cost could be waived.

F. Other Comments on the Application

The ACC provides the following additional comments on the Application:

1. Structured parking -

- a. The structured parking area of the apartment building is proposed for the ground floor or basement level of the new building. This parking garage should be constructed in such a manner that it is above the 100-year flood elevation.
- b. For areas of the building located in the flood zone, flood water should be allowed to enter and exit without impediment, through open grates or vents in the building walls.
- c. Any volume of floodplain taken up by structures, columns, stairs, elevators, walls, footings or such should be compensated for by compensatory flood storage from some area outside of the floodplain.

2. Outside parking-

The parking spaces and driveways of the proposal should be constructed using porous paving methods or have these impervious areas go directly to stormwater treatment areas (along with the roof drainage) so that flooding in the area is not aggravated. A small parking lot is located in the northeast corner of the property and Sheet C-1.0B shows two small wetlands in this location. This is a permanent impact to these wetlands and should be avoided.

3. Tie-ins to sanitary sewers-

All proposed new houses and apartments should have backup prevention valves and allow for storage of sanitary sewage during flood events. The existing sanitary sewer system in the neighborhood is old with significant leakage during rain events when stormwater enters the system through CSOs. To lessen the impact of the cross contamination and help to prevent this additional sewage from flowing out the stormdrain system, the buildings should have storage tanks for the sewage systems.

4. Exterior lighting-

All street lights, exterior lighting, and lighting for parking areas should be minimized, timed, and directed downward so as not to shine into vegetation and wetland resource areas. The developer should adopt "Dark Sky" and LEED standards in their bid documents such measures will be protective of habitat (nocturnal migratory birds).

5. Sidewalks to the Alewife T station-

The layout of the proposed sidewalk is directly through a wetland, the one that is contained in the old sawmill foundation. This should not be allowed. Pedestrians can instead use the street and its sidewalk and leave the wetland and AURA alone.

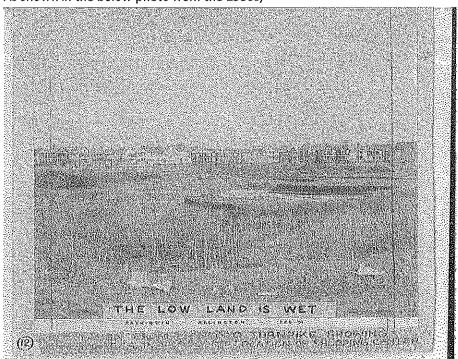
6. Direct Access to Route 2 -

Plan sheet C-3.1 "Utilities" is marked with "Proposed Lake St. off ramp driveway access" and Sheet C.2.0, "Overall Site Plan", shows an access road directly off and onto Route 2 westbound, but it is not discussed in the project narrative. This possible access road appears to go through wetland resource areas and it is unlikely to be approved if it goes through BVW or isolated wetland.

- 7. Electric charging stations for cars should be a requirement for each building/unit.
- 8. The traffic study of 2014 is outdated and should be updated as traffic affects wildlife as well as increasing pollution, which negatively affects the resource areas. Reference to the Massachusetts Avenue improvement project is misplaced as the project, now completed, has not provided the traffic improvements promised.
- 9. The Applicant says (p. 15) an embankment causes flooding into adjacent neighborhoods. This statement is unsubstantiated. This embankment is quite small.

II. The Natural Resources of the "Mugar" Property

As shown in the below photo from the 1950s,



the property in question is a remnant of the Great Swamp, a former tidal backwater of the Alewife Brook which empties into the Mystic River system. Historical records show that the drainage and flooding problems in this area were evident from the moment this land was built upon in the 17th century. Often attempts to "control" this problem, for example by filling adjacent floodplain, straightening and concrete lining of Alewife Brook, only worsened the conditions. All of these cut off the natural soils of the floodplain to allow water back into the groundwater system beneath. The large CSO separation project in Cambridge (which the Applicant speaks so highly of) had a main goal of protecting Fresh Pond from sewage since it is a drinking water source for the city. The new wetland outfall in Cambridge provides some treatment of this contamination, but the entire stormdrain and sanitary system functions at capacity during rain events, so that the CSOs still have to discharge sewage into stormwater up to 7 times per year. This stormwater flows into the Alewife Brook and this is the same floodplain on this property. Raw sewage is delivered straight to the surface of this property (and the adjacent neighborhood) on average 7 times per year.

Regarding statements that 11 acres of the property to be preserved in perpetuity as open space: These wetlands, areas within 100 feet, and the floodplain should be maintained in a natural state and not turned into a "park". The wetland creation across Route 2 in Cambridge with its boardwalks is a nice example, but it should be noted that not all wildlife tolerate the proximity of the public on these paths. Seclusion for nesting, feeding and breeding behaviors are also necessary for most wildlife.

Regarding statements that the forest has invasive plants:

There are invasive plant species among the other many diverse plants on the property. Along with the invasives plants of phragmites, Norway Maples and multiflora rose, there are hundreds of other native and non-native species such as willow, cottonwood, maples, and greenbriar. The property also contains piles of bricks and construction debris along with spoils from local pond dredging. The characterizations of this property in the Application are highly subjective and purpose-driven. Many years of neglect, misuse, abuse, and the increasing development pressures in the adjacent urban areas have impacted this property to its detriment. The Applicant, as the owner of this property, is the one that has allowed it to degrade and should not be rewarded for that neglect, but rather, should be required to restore the resource.

To use this condition of the land as an excuse to build permanent buildings, structures and required mitigations that will definitely impact the natural resources, while describing them as improvements, is not accurate or appropriate and should not be accepted. Plan sheet C-1.0B Existing conditions plan-Floodplain update dated 8/12/15 shows floodplain lines and marks the area above the floodplain as "Buildable Acreage". This plan has spot elevations which are unreadable to confirm or verify the placement of the floodplain delineation. The property could also accurately be described as "Forested Adjacent upland with shallow ground water." This description is supported by the dominant tree in the woods in this area, cottonwood, which is a floodplain species.

Conclusion

In summary, the Conservation Commission respectfully requests that the ZBA:

- require the Applicant to provide the information specified above so that the impacts on wetlands and other natural resources can be evaluated;
- not grant any waivers from the Town of Arlington Wetlands Protection Bylaw and implementing regulations;
- direct the Applicant to apply for Conservation Commission approval of both (i) the boundaries of wetland resource areas and (ii) approval of any proposed work in and near those areas;
- require the Applicant to provide stormwater information; and
- require peer review of the wetland delineation, floodplain delineation, stormwater information and calculations and traffic study.

We hope the ZBA finds the above comments and information helpful. Please contact us should you have questions. Commission members plan on attending the ZBA's hearings on the Application, the first of which we understand to be scheduled for September 27, 2016.

Very truly yours,

/s/ Nathaniel Stevens

Nathaniel Stevens, Chair

Encl.

ARLINGTON REDEVELOPMENT BOARD



TOWN HALL, ARLINGTON, MASSACHUSETTS 02476 781 - 316 - 3090

September 27, 2016

Pameia Heidell, Chair Zoning Board of Appeals Town of Arlington 51 Grove Street Arlington, MA 02476

RE: Arlington Land Realty, LLC Application for a Comprehensive Permit to develop Thorndike Place – Comments to the Zoning Board of Appeals

Dear Ms. Heidell and Members of the Board,

To aid the Arlington Zoning Board of Appeals (ZBA) in their review of the Arlington Land Realty, LLC Application for a Comprehensive Permit to develop Thorndike Place, the Arlington Redevelopment Board (ARB) met on Monday, September 26, 2016 to discuss the project and provide comments. The ARB has the following comments and questions on the proposed project, organized by topical issue:

- 1. Wetland Impact, Restoration, and Access: The ARB defers to the Conservation Commission on measures that can be used by the developer to protect the wetlands. However, has the following questions and concerns:
 - a. Is the designated 11.5 acre open space publicly accessible? If not, then what will be the restrictions on public access?" Will structures, such as a boardwalk or pathway, be built and by whom? Locations and access points for the proposed wetland paths should be confirmed. We recommend access from Thorndike Field, as well.
 - b. How will the existing wetlands be cleaned and modified?
 - c. How will the wetlands function following clean-up? How will the flow of water through the wetland be improved and what are the related impacts of these improvements downstream?
 - d. If the 11.5 acres are deeded or permanently restricted, who will own and maintain the wetland after occupancy? The ARB recommends that the Open Space Committee engage in discussions with the developer with the goal of preserving and providing public access to this open space resource.
 - e. With additional residential development occurring along Route 2 in Cambridge and Belmont, what are the cumulative impacts on stormwater and the wetlands?
- 2. Traffic, Circulation, and Access: The ARB defers to the Transportation Advisory Committee (TAC) on matters relative to traffic and circulation. TAC conducted a

thorough review of the Traffic Impact Assessment Study (TIAS) and provided a comment letter to the ZBA. The ARB has the following questions and concerns:

- a. A new TIAS should be conducted to take into account a number of issues:
 - Lake Street is one of the most congested streets in Arlington. The ARB is concerned about added traffic on this street and in the neighborhood. A revised TIAS should adequately consider the project's impact on Lake Street.
 - ii. The developer should consider direct access from the project to Route 2. With additional residential development occurring along Route 2 in Cambridge and Belmont, what are the cumulative traffic impacts? A revised TIAS should consider the recently built and planned development in Cambridge and Belmont along Route 2. If Route 2 access is considered as an option for the project, then the TIAS should fully explain the impacts of traffic with and without the route 2 access.
 - iii. The TIAS should take into account the heavy use of Thorndike Field by sports teams after school, overlapping with the evening peak traffic hour.
- b. The application includes a high parking ratio of 1.4 spaces per housing unit. The ZBA should request information about the reasoning and justification for this amount of parking. The ARB recommends that Transportation Demand Management (TDM) be applied to this project. TDM is recommended to reduce vehicle use on the site, and also increase the use of transit, bicycles and walking. In relation to TDM matters:
 - i. What on-site amenities will the developer provide to encourage bike use, e.g. covered bike parking?
 - ii. What is the connectivity between the project and the bike path, bus, and subway transit routes? How will residents be able to connect with those amenities? Will the pedestrian overpass on Route 2 be restored to encourage access? What is the projected bike path use and ridership as a result of this project?
- 3. **Design:** The ARB has the following questions and concerns:
 - a. The ZBA should request full-size plans. The following design documentation should be provided: site plan, floor plans, (all levels,) with building dimensions, building sections with floor to floor and overall building height dimensions, building façade elevations with materials indicated and specified, building massing / 3-D views, building mechanicals and placement of mechanicals with noise estimates and hours for testing for generators and similar, parking plan, lighting plan and landscaping plan. The massing plan should show the view along Dorothy Road. A building model would also be useful for understanding overall site impact and scale and samples of the actual building materials and colors should be provided.
 - b. The raised front porches of the proposed houses along Dorothy Road, as well as the style of the fences on the porches, create an image of the houses being closed-off from the sidewalk, street, and neighborhood. An alternative, more

- open interface between the houses and their surroundings should be considered.
- c. The developer should consider moving the houses closer to the street with vehicle access to the rear. This could create more open space and community gathering areas.
- d. The developer should consider applying LEED ND guidelines in planning and development for the site.
- e. The ARB would appreciate the ability to provide further comments on the design as plans progress.
- 4. Affordable Housing: The ARB has the following questions and concerns:
 - a. The Town (ARB and Board of Selectmen) recently adopted a Housing Production Plan (HPP) that outlines affordable housing needs. Per the HPP, the ARB recommends that all units are deed-restricted as affordable in perpetuity. Further, per the Town's Inclusionary Zoning requirements, the ARB recommends that the affordable units are dispersed throughout the development and comparable to market rate units in terms of quality and character, room size, and external appearance. Parking for affordable units should also be comparable in location and appearance to parking for market rate units.
 - b. The HPP identified the need for housing for middle-income households (110% of area median income or \$280,000 for two-bedroom unit and \$325,000 for a three-bedroom unit). The ARB recommends that at least one or two of the forsale condominiums be available and affordable to middle-income households. Additionally, the ARB would prefer more for-sale housing units at all price points—market, middle-income, and affordable to households earning at or below 80% of the area median income.
 - c. The developer should provide the Affirmative Fair Housing Marketing Plan to determine the market for these units, pricing and marketing of all units.

The ARB is available to discuss any of the above comments and questions with the ZBA. We would appreciate the opportunity to discuss the project design further with the ZBA and with the developer.

Thank you for your consideration of the ARB's comments and questions.

Indvew Brynnell
Andrew Bunnell

July



Town of Arlington Department of Health and Human Services Office of the Board of Health

27 Maple Street Arlington, MA 02476 Tel: (781) 316-3170 Fax: (781) 316-3175

MEMO

To: Zoning Board of Appeals

FROM: Christine Bongiorno, Director of Health and Human Services

DATE: September 26, 2016

RE: Comments from the Board of Health on the Application for Thorndike Place

Thank you for the opportunity to review and provide comments on the application for Thorndike Place. Upon review of the materials provided, the Board of Health asked that the following areas be further addressed:

Vector Control

Mosquitoes

From the Submitted application: Part III Section E. 5. <u>Stormwater</u> Management reads:

"Stormwater will be managed via an underground infiltration system and surface infiltration/detention pond. Likewise the site grading, drainage improvements and stormwater management will incorporate Low Impact Design techniques such as green landscaping, permeable pavement, rain gardens, water quality swales and use of building rooftops as green roofs and or run off detention design. The system is designed to capture and infiltrate the required water quality volume and recharge volumes, so that post development peak discharge does not exceed predevelopment rates."

As a member of the Eastern Middlesex Mosquito Control District, Arlington regularly surveys all wetlands in town to assess mosquito growth throughout the mosquito season. The area where Thorndike Place is proposed has historically not posed a significant mosquito risk as the soils located in the area have been found to absorb stormwater within a period of time to naturally control the full development of the disease carrying mosquitoes that we seek to prevent. The Board of Health requests that the following issues be addressed:

- Provide information including data on how many days stormwater will remain within the underground infiltration system and surface infiltration/detention pond
- Please provide a mosquito growth control plan including maintenance and dredging schedule for the detention pond

Rats

Over the past two years the Health Department has seen a steady increase of rats within town. Please provide a detailed rat/pest control plan for the construction phase of the project as well as a pest control plan for ongoing control.

Trash and Recycling

The Preliminary Site Development Plans did not appear to show the location of shared trash and recycling storage areas. The main concern held by this Office would be the provision of enough trash storage receptacles or dumpster of sufficient size and capacity to eliminate overflowing and scattered debris, and which are located in such a manner to prevent all other associated nuisances. All trash storage receptacles and/or dumpsters shall be located at a distance from the lot line so as not to interfere with the safety, convenience, or health of abutters. Any such dumpster, if placed, shall at all times meet the requirements set forth in the Town of Arlington, Board of Health Dumpster Regulations and for the Removal and Transportation of Garbage, Rubbish, Offal, or Other Offensive Substances.

Nuisance Noise

The main concern held by this Office would be the noise generated, both individually and cumulatively, by any HVAC equipment located on the exterior of the buildings, and whether they will violate the Town's noise bylaw and/or the State Air Pollution Control Regulations, or if it will interfere with the quiet enjoyment of abutting or nearby private property. Any such offensive or violative noise conditions would require mitigation. Additionally, please provide details on the plan to limit noise during the construction phase.

Dust Control

Please provide information on the dust control measures that will be used during the construction phase of the proposed project.

Please do not hesitate to contact me directly should you need clarification or have specific questions related to the abovementioned issues.



TRANSPORTATION ADVISORY COMMITTEE

Arlington Planning Department, 730 Mass Ave, Arlington MA, c/o Laura Wiener

To: Arlington Zoning Board of Appeals

From: Transportation Advisory Committee (TAC)

Subject: Thorndike Place Traffic Impact and Access Study

Date: September 26, 2016

A working group of the Arlington Transportation Advisory Committee (TAC) reviewed the Draft Mugar Parcel 40B Residential Development (now Thorndike Place) Traffic Impact and Access Study (TIAS), dated April 2014. The working group offers the following comments requesting additional information needed to properly asses the likely transportation impacts of the proposed development.

- The proponent should provide the Appendix to the TIAS, which was not included in the submittal. We need to review the TIAS Appendix in order to fully and properly evaluate the study.
- There appears to be a discrepancy in the size of the development reported in the TIAS versus the rest of the project application. If necessary, the TIAS should be updated to reflect the current proposed project size.
- The assignment of project trips incorrectly allowed the traffic to turn right from northbound Lake Street onto Lttlejohn Street in the evening peak hour. There has been a longstanding restriction on right turns at this roadway and others along Lake Street. The project trips should be reassigned to the roadways recognizing these restrictions and any impacted intersections should be reanalyzed. In addition, the Town recently instituted a six-month restriction on traffic entering Littlejohn from Lake Street in both the morning and evening peak periods. If this change would further alter the project trip assignment, this condition should also be analyzed.
- The report provides no analysis of the impact of future No-Build and Build traffic on queuing along Lake Street in the peak periods. In the evening peak period, traffic frequently backs onto the Route 2 eastbound off-ramp as well as on Lake Street back to Cross Street in Belmont. Additional traffic on Lake Street will lengthen the existing queues and increase travel time for vehicles traveling northbound on Lake Street. The increase in queuing and delays should be analyzed. The traffic engineer may wish to review TAC's

To: ZBA page 2

From: TAC

Re: Thorndike Place

Date: 9/26/16

January 13, 2016 report, Lake Street Corridor Project - Manual Signal Simulation Test.

- As part of the analysis of queuing along Lake Street, the study should analyze the Lake Street intersections at Brooks Ave. and the Minuteman Bikeway.
- The transit mode share of 28% consists primarily of trips to Cambridge and Boston. If the trip distribution shown on Figure 7 is based on <u>all</u> works trips from the census data, an adjustment should be made to better reflect the actual <u>vehicle</u> trip distribution, which would likely have a lower share of trips to Cambridge and Boston and a higher share in other directions not well served by transit.
- The proponent should develop a Transportation Demand Management Plan
 to assure that the development will achieve the level of non-vehicle travel
 used in the analysis or higher. The Department of Planning and Community
 Development can assist the proponent in identifying TDM measures suitable
 for the project site and proposed development.
- The study should provide the length of the walking route to the Alewife Red Line station from the center of the development and provide an exhibit showing the route on a map. The study should also show any walking connection to the Route 2 bus stops and the pedestrian bridge across the Route 2, and if there is a connection, provide the length of it.
- Information about the site locations vis-à-vis transit services and the transit mode share should be provided for the developments used for the trip generation comparison in Table 4. If the empirical trip generation rates reflect a transit mode share for the developments, the ITE trip generation rates should be reduced accordingly to provide a valid comparison.
- The parking ratio for the project is 1.5 spaces per unit. This ratio seems high for a development where more than one-quarter of trips are by transit. The study should explain why the rate of 1.5 is appropriate and provide the parking ratios for the developments used in the trip generation comparison in Table 4

To: ZBA page 3

From: TAC

Re: Thorndike Place

Date: 9/26/16

- The trips expected to be generated by the remaining 344,000 sf to be developed in Discovery Park are included in general background traffic growth. Given this large amount of development, it seems appropriate that the trip generation from the proposed development should be specifically accounted for in the No-Build analysis. Additionally, the study should be updated to include developments that are new to the pipeline. Specifically, Vox on 2 II, and Royal Belmont are two large residential developments planned for or under construction in the immediate area.
- The study should provide information about bicycle accommodation in and around the development, including the number of spaces and location for bicycle storage.
- Chapter 5.0, Alternative Access Plan, should be updated to provide the current status of the Route 2 right-turn-in, right-turn-out driveway.

Respectfully submitted,

Howard Muise - TAC Chair



TOWN OF ARLINGTON Department of Public Works 51 Grove Street Arlington, Massachusetts 02476

Arlington, Massachusetts 02476 Telephone (781) 316-3320 Fax (781) 316-3281

Thorndike Place Review Comments

Date: Friday, September 23, 2016

To: Laura Wiener; Planning & Community Development

Ashley Maher; Zoning Board of Appeals

From: Wayne Chouinard, Town Engineer

RE: Plan review for Thorndike Place Comprehensive Permit

It should be noted that the submitted plans appear to be incomplete and do not include suitable detail to evaluate the utility, stormwater design or details pertinent to paving, sidewalks, handicap ramps etc. A complete set of properly sized and suitably detailed plans including all engineered features, details and specifications for this development should be provided.

The Town of Arlington Engineering Division is in receipt of the Comprehensive Permit information provided by the Arlington Zoning Board of Appeals on September 2, 2016 and offers the following comments as they pertain to the following components of the design/plan:

Stormwater/Resource Areas:

- Plans do not accurately depict areas where work is proposed in the floodplain. Additional data should be included indicating any compensatory flood storage analysis and replication on a foot by foot basis as required by the wetland protection act.
- All necessary calculations should be submitted in order to evaluate the hydrologic and stormwater runoff conditions for pre-development and post-development.
- There is no information provided to review the stormwater runoff requirements from the building roof which is indicated to detain roof runoff... is there an emergency overflow or redundant system incorporated into the design in case of blockage/poor maintenance?
- No stormwater collection pipes or infrastructure roof drain, leaders, pipes etc.— are indicated.
- o Operation and maintenance requirements for flood compensation areas, drainage structures, recharge areas, tree filters, pervious pavement, (long term pervious test component). When pervious nature is gone, pavement shall be replaced with new/more pervious pavement
- Suitable details and elevations are not provided to accurately and effectively review the stormwater component of this site design.
- o Pervious pavement is not recommended over the existing sewer line/easement without upgrading or renewing the existing line which is 50 years old and consists of asbestos pipe which has low structural integrity, can be brittle, is difficult to connect to and is susceptible to groundwater infiltration.

Traffic:

- o Review and document the LOS ratings along Lake Street. A previous study performed for the Residences at Acorn Park located off of Lake St. in Belmont indicated LOS of "E" for morning and LOS "D" fro evening peak hours. The submitted traffic analysis for Thorndike Place has graded these as LOS "C". What are the measurable differences for this discrepancy and why?
- Due to historic and well documented traffic issue along the Lake Street corridor it is recommended that more detailed analysis be provided for the Minuteman ike Trail crossing and the Lake St./Brooks Ave.

- traffic signal. These locations should be analyzed thoroughly for a better understanding of the overall traffic situation.
- Traffic volumes have been reported and documented to have increases during the current economic situation where gas prices are historically low. Is a transit use share of 28% suitable when economic trends and gas prices result in an increase in vehicle use. Consideration should be given to lower the transit use share to account for economic fluctuations.

Lighting:

A photometric plan should be provided to evaluate site lighting and light spillage at property lines.
 Night sky reduction, light pollution, cut off fixtures and glare should be addressed and carefully evaluated and documented.

Water:

- The proposed water main configuration is a short loop. Recommend moving connection from Dorothy Rd. at emergency access gate, to Edith Road for more efficient water distribution and better water quality.
- The length of the entire building is difficult to ascertain due to the reduce scale plans provided. However, it appears to be in excess of 800 feet without any access in the middle. Recommend location of fire hydrants at the rear of the building for better fire protection/safety.
- Calculations should be provided to ensure the distribution system for the area has capacity for increased demand for fire flow and domestic water supply without impacting the existing system or abutter's water volume and pressure.

Sewer:

- o The sewer connections for townhouse units are angled in wrong direction.
- O Up-gradient sewer flow, with peaking factor shall be determined and provided to document suitable capacity for proposed additional flow. Evaluation shall include the downstream sewer main to determine whether it will provide sufficient capacity for the intended increase in flow and address any added exfiltration potential.
- The connection of proposed sewer services shall be to the neighborhood sewer system located in Dorothy Rd. and not to the cross country easement line serving the area located west of Pleasant St.
- o Oil/gas separators are not indicated for the parking structures. These shall be designed and located properly within the parking structures
- Pervious pavement is not recommended over the existing sewer line/easement without upgrading or renewing the existing line which is 50 years old and consists of asbestos cement pipe which has low structural integrity, can be brittle, is difficult to connect to and is susceptible to groundwater infiltration.
- o Restrictions for work over any town owned utilities should be implemented to evaluate the existing condition of subsurface utilities prior to construction. A post-construction evaluation should also be performed to identify any damages caused during construction.
- Hydraulic calculations should be provided for utilities to confirm suitable capacity. Any upgrades or improvements necessary to maintain capacity with proposed additional flow shall be included in this project.

Utilities: Other

What are the off-site upgrade requirements necessary for the CATV requirements for proposed development? Will current utility pole and cable configurations accommodate the required cable electric and telephone wires without the need for additional utility poles or improvements outside of the project locus? Any installation of utility poles or underground conduit in the public right of way will require a Grant of Location from the Board of Selectmen. This information should be provided as part of the application process to evaluate the entirety of impacts and effects.

Pavement, parking and sidewalks:

- o Pavement markings shall be required and maintained at all times
- o Pavement markings for handicap spaces should be added
- o ADA accessible routes should be delineated.

- Suitable turning space is not provided for the spaces at the terminus of each garage
- Fire lane markings should be included.
- o Signage none indicated
- o Properly designed fire lanes shall be designed for access around the structures.
- o Parking areas should be shielded from abutters by placing behind/beside buildings consistent with parking requirements throughout town.
- Turning radius should be included detailing required radii for all vehicles on access drives and within parking structures.
- o Sidewalks should be included on all entrances to the site and connect to existing sidewalk infrastructure. Any missing sections shall be added as part of this plan in order to provide accessibility requirements necessary for the connectivity towards the Minuteman Bike Path and Alewife Station.
- o Suitable details should be provided indicating ADA accessibility requirements for sidewalks, ramps and any other pedestrian accommodations.
- Was consideration given to providing pedestrian access to the pedestrian bridge located over Rte. 2?

Landscaping:

- Suitable/additional screening should be placed between the apartment parking areas and the residential/townhouse units that will be under different ownership.
- o Suitable landscape screening shall be provide/required to block vehicle headlights from access lanes into/toward abutting homes.
- There is not a suitable level area adjacent to the building to safely access the area or perform standard maintenance tasks and create a logistical dilemma and safety concern for all future work around the buildings.
- Submit calculations and area determination for on-site space for family/child oriented activity. Is amount provided suitable for the proposed development?
- Landscaping/privacy screening for existing homes on Dorothy Road. What type of screening can be provided in the flood compensation/water quality detention areas?

Administrative:

- Consideration should be given to designing and providing wider sewer easement beyond 10ft. These easement width were typical in past generations of design but are found as the utilities are aging do not provide suitable room to perform all necessary work within the easement.
- Site plan should identify areas where delivery and other larger vehicles will frequent and address suitable turning radius requirements.
- Time of use restrictions for deliveries, trash pickup etc. to reduce impacts on adjacent neighborhood.
- o Request clarification of the information provided on page 11 of the requested waivers pertinent to the "package treatment plant".
- O Drawings indicate scale is only valid if plotted on 24"x36" plans. The 8.5"x11" and 11"x17" to not allow proper or accurate plan review with a distorted scale.

RE: Mugar / Thorndike Place Comment.

To: "Laura Wiener" <LWiener@town.arlington.ma.us>, "Ashley Maher" <AMaher@town.arlington.ma.us>

From: "Robert Jefferson" <RJefferson@town.arlington.ma.us>

CC: "Adam Chapdelaine" < AChapdelaine@town.arlington.ma.us>, "Michael Rademacher"

<MRademacher@town.arlington.ma.us>

Date: 09/20/2016 03:30 PM

Laura,

Naturally the AFD comments will deal with safety issues. I have met with Mike Byrne and Deputy Chief John Kelly, Fire Prevention, and we have reviewed the packet and feel that the current submitted information is inadequate for us to evaluate or comment on our issues. As far as the buildings go, all fire protection, alarms and sprinklers, will need to be in compliance with state regulations. Our questions are more in regard to access and egress for emergency response, fire lanes, ability to access buildings once on site and water pressure. The plans do not show enough detail for us to evaluate access and egress. Our concern with water supply should be directed to the DPW/Water for a complete evaluation of the mains and what type of water supply we would have in the event of a large scale fire. I will use the Arizona Ranch fire as an example of where we had a large complex at the end of a water main which could not supply us with enough water to effectively extinguish a large fire. I'm not sure what type of mains are down there but if they would not be adequate, this would be the time for improvement.

Please contact me with any questions. Thank you.

Robert J Jefferson Fire Chief Town of Arlington 411 Mass Ave. Arlington, Ma. 02474 781-316-3801 From: "Mike Byrne" <MByrne@town.arlington.ma.us>
To: "Laura Wiener" <LWiener@town.arlington.ma.us>

Date: Mon, 26 Sep 2016 15:02:48 -0400

Subject: Inspections Mugar Property comments, revised

Hi Laura,

At this point, comments from Inspectional Services can be vague at best as the plans submitted aren't adequate for permit review. The plans aren't to scale nor sufficient enough for an adequate assessment of wetlands, uplands, gas, water, sewer, electrical utilities, soil conditions, etc. Once, full plans are received and reviewed we can have a better assessment for the Board's view.

I've found no law or regulation requiring reduction in permit fees as the applicants waiver sheet requests. As such I would recommend, as has been our past precedence with other 40B projects, full fees be paid.

Respectfully, Michael F. Byrne Director of Inspectional Services 51 Grove Street Arlington, MA 02476 781-316-3390



Open Space Committee

September 23, 2016

Zoning Board of Appeals Arlington Town Hall 730 Mass. Ave. Arlington, MA 02476

Dear Zoning Board Members,

On behalf of the Arlington Open Space Committee, I am writing to express strong opposition to the proposed Thorndike Place project as described in the Application for Comprehensive Permit submitted by Arlington Land Realty, LLC for the property locally known as the Mugar land in East Arlington.

The Open Space Committee is responsible for preparing the Town's Open Space and Recreation Plan, and the current edition of the plan, covering the years 2015-2022, was approved by the Massachusetts Department of Energy and Environmental Affairs, Division of Conservation Services in September 2015. Among the Plan's primary goals is "Goal 1. Acquire ecologically valuable undeveloped lands or ensure their protection through conservation restrictions or other means."

Throughout the Plan, references are made to this goal for protecting the entire 17.7-acre Mugar parcel, not for conservation of only 11 acres that the Application suggests. It is ironic and strange that on page 9 of the Application, the proponent actually cites the Plan, yet fails to provide the complete context of the Plan's goals and objectives.

For example, on page 5 of the 2015 Plan: "...Town Meeting voted in 2000 to approve the 1996 Plan's goal of acquiring the Mugar parcel for open space purposes ... In May 2001, Town Meeting reaffirmed its commitment to preserving the Mugar property as open space ..." On page 10: "The 17-acre Mugar property in East Arlington remains the highest priority goal for acquisition and protection as open space and floodwater storage." In spite of repeated efforts on the part of Town officials, the Arlington Land Trust and others, the Mugar family was unwilling to pursue a serious acquisition or conservation option.

A major concern about development of the Mugar site in terms of open space and natural resources is its location in a part of town that is designated and protected as wetlands and has experienced serious flooding events over recent decades. On page 10, the 2015 Plan continues:

"In 2010 FEMA released updated floodplain maps that show much of the Mugar land encumbered by several levels of flood zones, making extensive development difficult. The Arlington Redevelopment Board [ARB] voted in 2011 to formally adopt the [2007-2014] Open Space and Recreation Plan, thereby making the Plan, including acquisition and preservation of the Mugar property, Town policy, and thus signaling the Town's discouragement of any development of the property."

The ARB subsequently adopted the 2015-2022 Plan on March 30, 2015, reinforcing the Plan's status as Town policy. Complementing the Open Space and Recreation Plan is the Town's 2015 Master Plan, which also recommends protection of the Mugar property for open space and flood management.

The Open Space Committee joins many other town committees, officials, and residents in opposing the proposed Thorndike Place development, primarily due to its inappropriate location in a floodplain. There are a host of problems associated with such a large set of structures, parking lots, and other infrastructure being located in this known wetland region. This is also the last remaining ecologically valuable open space parcel in Arlington.

We support the ZBA in doing everything within its authority to evaluate the extensive engineering and other technical analysis related to this corner of Arlington. We urge the ZBA to deny any waivers of local bylaws that protect wetlands and flood storage in this vulnerable region. We hope that the ZBA will subsequently deny the entire proposed Thorndike Place Application based on all available data, including the Town's policy outlined in the 2015-2022 Open Space and Recreation Plan.

Please advise our committee about future steps in addressing the Thorndike Place project because we need to be actively involved in the decision-making process. Thank you for your consideration.

Sincerely,

Ann LeRoyer, Chair

Open Space Committee

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Arlington Land Trust Officers

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Ms. Pam Heidell, Chair Zoning Board of Appeals Town of Arlington 730 Massachusetts Avenue Arlington, MA 02476

re: Thorndike Place, Application for Comprehensive Permit

Dear Ms. Heidell and Members of the Board

Arlington Land Trust (ALT) is a non-profit organization dedicated to the protection and enhancement of the open spaces of Arlington for the improvement of our community's quality of life and environmental health, for the benefit of all.

ALT has long supported the Town of Arlington's well-established policy goal of permanently protecting the Mugar site. For decades both the Town of Arlington and the Commonwealth have identified and prioritized this site as needed for conservation, most recently articulated in the Town's Master Plan adopted in 2015 and explicitly endorsed by Town Meeting. The benefits of conservation of the parcel extend throughout the Alewife subwatershed in Arlington, Belmont, Somerville and Medford; the ill effects of floodplain development similarly transcend municipal boundaries. Decades of observation and experience of flooding in the area cannot be ignored in considering the local and regional impacts of this proposed project.

The Mugar site has been degraded over time by its owners who have allowed debris to be dumped and wetlands to be covered over. The site has significant potential for restoration and greatly increased contribution to the resilience of the Alewife subwatershed, as suggested by the US Army Corps of Engineers when it included the parcel in a proposed study of wetlands restoration sites.

Even in its current degraded state, however, the site performs a critical public safety role by storing and buffering floodwater, and its pervious soils and wetlands filter pollutants and provide a slow release of groundwater to streams during dry weather.

In the face of the reality of increasing frequency and severity of storm events, removing the buffering potential of this site is against the best interests of the entire region. To ensure that the environmental resources and potential of the site are properly considered, we urge you to follow the recommendation of the August 15, 2015 report received by the Town from Nover-Armstrong Associates, Inc. in connection with its review of the applicant's application to MassHousing for site review. The report recommends that "due to the historical evidence of the Alewife Brook (Little River) flooding impacting the Site and adjacent neighborhoods," the Board is urged to "deny all waivers requested by the applicant relating to the Arlington Wetlands Protection Bylaw. Waiver of the Wetland Bylaw would prevent the [Conservation] Commission from taking into account evidence of flooding of residences located beyond the Zone AE limits shown on FEMA's maps."

The following waiver requests by the applicant should all be denied, and full compliance required with the provisions of each law and regulation:

Law or Regulation	Purpose	
Title V: Article 8	Wetland Protection By-law	
Regulations of the	Wetland Protection Regulations	
Conservation Commission		
Title V: Article 15, Sec 1-5	Stormwater Mitigation	
Article 6, Sec 6.07	Building in Floodplain	
Article 6, Sec 6.30	Open Space Regulations for PUD	
Article 11, Sec 11.04(a)-(g)	Floodplain District	
Article 11, Sec	Inland Wetland District	
11.05(b),(d),(e),(f)		
Article 11, Sec	Environmental Design Review	
11.06(b),(d)(1,4,5,6),(e),(f)		
Article 11, Sec 11.07	Filing of Any Water or Wet Area	

It is worth noting that this project comes to your Board by virtue of the issuance by MassHousing of a December 4, 2015 "site approval" letter. Among the findings that MassHousing must make to grant site approval is "that the conceptual project design is generally appropriate for the site on which it is located, taking into consideration factors that may include proposed use, conceptual site plan and building massing, topography, environmental resources, and integration into existing development patterns (such finding, with supporting reasoning, to be set forth in reasonable detail)".

The Nover-Armstrong report finds that the applicant "has not demonstrated that the Site can accommodate the project without having detrimental impacts to wetland resources and existing flooding conditions on the Site and surrounding neighborhood."

In fact, MassHousing makes not even a pretense of having seriously considering the environmental resources of the site and the impacts of the proposed development. It makes the required finding that the project is "generally appropriate for the site" with no

supporting reasoning whatsoever. Perversely, it offers up the fact that the state Department of Conservation and Recreation declared the Mugar site one of the highest-ranking priorities for conservation in the metropolitan region. Then, rather than giving that determination by a sister state agency some weight against development, it instead cites favorably that the new south-facing apartments will enjoy a view of what's left of the parcel after seven acres are consumed by development.

We expect that this egregious and deeply flawed action by MassHousing will be the subject of further inquiry and action by the Town of Arlington at the appropriate time in the process of project review.

Thank you for your consideration of these comments.

Very truly yours,

Arlington Land Trust, Inc.

by: Jennifer Ryan, President