



December 2, 2013

Paul Cincotta  
New England Development  
One Wells Avenue  
Newton, MA 02459

**Re: University Station  
LifeTime Fitness PDR  
Response to Peer Review Comments**

Dear Paul:

LifeTime Fitness, Shadley Associates, Tetra Tech and Vanasse & Associates, Inc. have completed a review of the comments provided by BETA Group, Department of Public Works, Board of Health, the Westwood Fire Chief and the Westwood Police Chief. Each comment has been responded to. For ease of review, each of the comments are provided below. Responses are shown in *italic* font.

**Comments provided by BETA Group dated November 5, 2013**

**DESIGN AND PERFORMANCE STANDARDS – As specified in Section 9.8.11 of the Zoning Bylaw**

**Submission Requirements (§6.0) Rules and Regulations**

Comment SR1 Provide Property owner of record on Landscaping, Lighting and Architectural drawings. (6.2.2)

*Response: The requested information will be provided on the revised drawings noted above.*

Comment SR2 Provide sheet numbers and titles on Architectural drawings. (6.2.4)

*Response: Sheets will be updated to reflect numbers and titles.*

Comment SR3 Provide scale and north arrow on Irrigation Plan drawings. (6.2.6)

*Response: The scale and north arrow symbols will be added.*

Comment SR3 Provide lot numbers on General Layout Map. (6.4)

*Response:* Lot numbers will be added to the PDR Plans once ANR Plans have been endorsed by the Planning Board.

Comment SR4 Provide designation of any trees with a caliper size 6” or greater to be removed if any (6.5.3). On C-111, Demolition Sheet, clarify tree symbols to coordinate with Notes 14 and 17 as to which trees are to be removed; they are shown 2 different ways.

*Response:* All trees located within the proposed limit of work are to be removed.

Comment SR5 Provide dimensions to show the net floor areas. (6.8.1)

*Response:* The net floor areas are listed below:

*First floor: 45,630 sf +/-*

*Second floor: 43,765 sf +/-*

*Third floor: 34,088 sf +/-*

Comment SR6 Provide dimensional information on elevations relative to finish grade (6.8.2) to show conformance with maximum building height. (9.8.7.1)

*Response:* Elevation sheets will be updated to include dimensional information from finished grade to top of roof and top of parapet.

Comment SR7 Landscape Plan Requirements (6.9):

- a. Provide location and/or details for any benches, bollards, trash cans, recycling containers, planters, trellis, and other enhancements (6.9.6 & 7)

*Response:* Site Furnishings will be detailed in the landscape drawing package. The landscape plans will reference the locations of these items.

- b. Provide clarification of proposed surface finishes throughout the site. It appears that the same hatch pattern is used for different surfaces.

*Response:* The updated Landscape Plans and Civil Plans identify pavement materials. Additional notes describing the specific surface treatments have been added to the respective plans as well. The updated plans are included with this letter.

- c. Provide greater detail for layout of bike rack(s) and backup for bike rack design in accordance with the Town of Westwood Planning Board Bicycle Parking Design Guidelines including number of bikes

to be accommodated. Coordinate bike rack location on Sheets L-100 and C-131.

*Response:* *Bike racks are shown to the west of the building entrance.*

d. Clarify irrigation for grass pave access drive area (detail and irrigation plan should be consistent)

*Response:* *The Irrigation plans will be coordinated to show irrigation at the grass pave area.*

### **Building Design: (§9.8.11.1)**

Comment B1 Provide more specific information on exterior materials, including precast panels at the cornice, glass types, window framing systems and masonry (b).

*Response:* *Exterior elevations will be updated to include supplemental information on materials. Material information included will be as follows.*

- 1. Cornice to be of colored architectural precast.*
- 2. Glass types utilized will be clear vision glass, spandrel and frosted.*
- 3. Window framing system to consist primarily of clear anodized aluminum storefront with curtain wall utilized at main entry, northeast building corner, and west elevation at grand stair.*
- 4. Masonry will consist of thin brick cast into precast wall panels as well as field applied limestone.*

Comment B2 Provide a rooftop plan showing equipment layout and screening (f).

*Response:* *A supplemental rooftop plan will be provided. Mechanical units have been located such that all screening is being provided by building parapet walls.*

### **Visual Mitigation and Screening of Infrastructural Elements. (§9.8.11.2)**

Comment V1 Provide landscape screening along westerly edge of the parking lot to be consistent with the Master Plan.

*Response:* *The Stormwater treatment area to the west of the parking lot is considered an aesthetic amenity for the LTF site. The intent is to maintain a strong visual connection between the LTF site and the Stormwater area. The Stormwater basins will also have shade trees planted within them, which will contribute to the screening of the parking lot from the west. Further, the landscape plans for the*

*stormwater basin have been amended to increase the amount of shade trees proposed in that area.*

Comment V2 The following comments are offered for evaluation regarding particular screening plants throughout the plan:

a. Consider replacing euonymus fortuneii with juniperus conferta due to scale insect affecting large plantings of euonymus;

*Response: We will take this recommendation into consideration as we complete the CDs.*

b. Consider replacing miscanthus sinensis with panicum virgatum 'Dallas Blue' due to suspected invasiveness of miscanthus; specifying hydrangea arborescens 'White Dome' as it will not flop over the entryway paving as 'Annabelle' does;

*Response: We will take this recommendation into consideration as we complete the CDs.*

c. Consider adding winter interest plant to the parking island with the pin oaks; replacing cotoneaster apiculatus with buxus 'Green Gem', thuja 'Hetz Midget', or similar due to tendency of cotoneaster to collect garbage.

*Response: We will take this recommendation into consideration as we complete the CDs.*

d. In addition, evaluate fruit drop of kousa dogwood in pool area. Consider as alternatives oxydendrum arboreum or viburnum sieboldii, or specify a kousa with late fruit drop such as 'Milky Way.'

*Response: We agree with this comment and will specify an appropriate substitution for the kousa dogwood.*

Comment V3 Along with required screening of rooftop equipment (Comment B2 above), revise PDR application to provide details of methods of screening for loading area, dumpsters and transformer including all fencing and enclosures. Note pool fencing and gate should be in conformance with building code requirements.

*Response: All requested supplemental information listed above will be provided.*

*1. Landscape screening will be utilized at transformer (and manual switch gear) location.*

2. *Trash enclosure will be limestone to match limestone used on building exterior elevation with a non transparent gate.*
3. *All pool fencing and gates will comply with governing codes.*

**Utilities. (§9.8.11.3)**

Comment U1 Provide documentation that the Fire Chief is in agreement with the locations of all fire hydrants. It should be noted that the fire hydrant at the rear of the building is constructed on a 2:1 slope.

*Response: The comments included with the November 13, 2013 letter from the Fire Chief have been incorporated into the site plan. Hydrant locations were reviewed at the November 22, 2013 meeting that was attended by the Fire Chief.*

Comment U2 Provide documentation that DWWD is in agreement with the water service connection.

*Response: Initial discussions with DWWD staff indicate that they are in agreement with the layout of the proposed water service connections.*

Comment U3 The water line at the rear of the building appears to be at the bottom of the slope. If below the sewer line, encasement may be required.

*Response: The proposed water main will be encased where sufficient clearance between it and the proposed sewer line cannot be met or where the water line is located beneath the proposed sanitary sewer service.*

Comment U4 Show existing utilities in Harvard Street more clearly on Utility Plan C-151

*Response: The Utility Plan (Sheet C-151) has been updated to more clearly indicate the existing utility infrastructure in Harvard Street.*

Comment U5 Show connections to overhead utilities in Harvard Street

*Response: Proposed utility connections to Harvard Street are shown on Sheet C-151. Specific connection requirements are being coordinated with the respective providers. Electric and telephone connections will be obtained from existing pole mounted services. Once the services are dropped from the pole, they will run subsurface to the proposed Life*

*Time Fitness facility. All other utility services are currently anticipated to be subsurface.*

**Street Design. (§9.8.11.5)**

Comment SD1 We suggest the Fire Department verify that the median separated entrance road is acceptable. At a minimum, a curb to curb width of 14 feet is suggested. If the ability to pass stationary vehicles in the driveway is required, minimum lane width would be approximately 18 to 20 feet. Pending evaluation of lane width, the median nose at Harvard may need to be pulled back to facilitate fire truck entry. Relocating the driveway median to a parking lot median, thereby allowing the driveway to be a typical two way road may be preferred and should be considered.

*Response: The comments included with the November 13, 2013 letter from the Fire Chief have been incorporated into the updated site plan, including a second point of access for emergencies. Additional fire truck turning movements have been provided as a stand-alone figure. As discussed on November 22<sup>nd</sup>, the main access drive lane widths will be increased to 13 feet and the median will be edged with sloped granite curbing with a 3" reveal.*

Comment SD2 The turning template for the E-100 Fire Truck at the southeast corner is restricted. We recommend a minimum clearance of 2 feet between (i) curb lines and wheels and (ii) overhang and adjacent obstructions. Confirm that the fire chief does not require more.

*Response: The additional feedback received from the Fire Chief in the November 13, 2013 letter has been incorporated into the updated site plan. All turning movements are designed so that the fire truck will not encounter curb lines with tires and/or vehicle overhangs. A stand-alone figure has been prepared demonstrating turning movements per the November 22<sup>nd</sup> meeting.*

Comment SD3 The Site Layout Plan (C-131) shows the turning path of a fire truck from Harvard Street into the facility entry roadway, from the facility roadway to the front of the building, and around the curbed island within the parking area. The turning path should also be shown leaving the parking area, either by the roadway in front of the building or by the mid-lot access point.

*Response:* A stand-alone turning figure has been prepared based on the November 22<sup>nd</sup> meeting demonstrating that the site layout can accommodate the turning movements requested by the Fire Chief.

Comment SD4 Provide turning template indicating fire truck can enter the parking lot via the curb cuts midway along the driveway. Show how that same truck can access the aisle.

*Response:* A stand-alone turning figure has been prepared based on the November 22<sup>nd</sup> meeting demonstrating that the site layout can accommodate the turning movements requested by the Fire Chief.

Comment SD5 Provide information on trucks that will service this building including size, location, frequency, and loading operations. Show that loading operations will not impede emergency access.

*Response:* A majority of the loading operations associated with the Life Time Fitness facility will occur through the front door of the facility. During deliveries, vehicles will be positioned in a way such that they do not impede access along the main site driveway, front access aisle, or side driveway.

Comment SD6 The grass lane at the rear of the building does not appear to extend the full length of the back of the building. Clarify construction detail for the other portion of the access lane. We also note the edge detail for the grass lane (L-300) is not consistent with the plan (L-100). Edging grass lane with curb is preferred. Show depth of gravel base; a minimum of 12" is suggested. Character of sub-base should be verified.

*Response:* The reinforced grass emergency lane has been increased in width to 14 feet and extends approximately 110 feet between the western end of the asphalt service drive (near the mid-point of the building) to the southern end of the pool fence (at the southwest corner of the building). The grass lane will be edged on both sides by flush concrete curb. The depth and specification of the base and sub-base materials will be provided in the CDs.

*The heavy duty pavement section in this area will be consistent with the detail utilized for the other heavy duty asphalt areas proposed for the site. The grass paver detail has been updated to show the depth of the proposed base material.*

Comment SD7 Provide less severe curves in the alignment for the bi-modal path to make it more user-friendly. This may require reconfiguring the wet basins or relocating the path.

*Response: Adjustments to the configuration of the bi-modal pathway have been made to facilitate pedestrian and bicycle use. Curve radii along the eastern edge of the basin, immediately abutting the proposed Life Time Fitness pool deck have been increased. Accordingly, the grading associated with stormwater management area 30P has been revised to accommodate the increased radii. The hydraulics of the basin has been checked to confirm that it will perform in a manner consistent with the Master Development Plan.*

Comment SD8 Confirm that the grass lane can withstand winter plowing and loading from fire truck.

*Response: The reinforced grass lane will utilize a product such as GrassPave2 (or equal) that is designed specifically for emergency fire lanes. The manufacturer of the reinforced grass emergency lane product recommends that any of the following practices be employed during snow plowing operations: A.) snow plow blades be lifted ¾ inch above the surface, B.) Use a plow blade with a flexible rubber edge, C.) use a plow blade with skids on the lower outside corners so that the plow blade does not come in contact with the reinforced grass units. Fire Chief has reviewed and is comfortable with the use of the reinforced grass material.*

Comment SD9 Show irrigation layout on irrigation plan.

*Response: The Irrigation plan will be advanced to show the layout of the irrigation lines as we complete the CDs.*

#### **Circulation, Traffic Impact & Public Street Access. (§9.8.11.6)**

Comment T1 Provide traffic counts for similar stand-alone Life Time Fitness facilities adjusted for building size with outdoor pool and bistro or use Land Use Code 492 (Health/Fitness Club) to establish trip rates for the proposed facility.

*Response: The proposed Life Time Fitness facility is not located on an isolated site and is not a stand-alone facility, but rather is an integral component of*



*the 2,100,000 s.f. University Station mixed-use development and should be analyzed as such. Moreover, the reduction of 126,000 s.f. of retail space within the University Station project needs to be accounted for in trip generation analyses performed for the Life Time Fitness facility. Therefore, in order to correctly estimate the trip generation of the project, the trip generation for the entire University Station project was recalculated to include the updated land uses which include:*

- *The addition of a 126,000 s.f. health club facility*
- *Reduction of the total retail/restaurant/grocery store space from 750,000 s.f. to 624,000 s.f.*
- *Reduction of the total retail/restaurant space 610,000 s.f. to 484,000 s.f.*

*The updated analysis was conducted in accordance with the approved methodology and assumptions presented in the November 2012 TIS and the following assumptions regarding the fitness center:*

- *All trips would be generated by automobiles,*
- *10 percent of trips would be internal trips*
- *20 percent of fitness trips would be either pass-by or diverted link trips*

*The trip characteristics for the Life Time Fitness Facility were obtained from Trip Generation LUC Code 492 – Health/Fitness Club.*

*The trip generation calculations for the updated University Station project, which accounts for the proposed Life Time Fitness facility and smaller retail/restaurant component are attached and summarized in Table 1. Also, shown in Table 1 are the summaries of the original University Station trip generation from Table 14 of the Nov. 2012 TIS along with the differences between the original and updated analyses. As shown in the table, the change in use of Retail Building R from a retail use to a fitness facility results in no significant change in traffic generated by University Station. In fact, the project will be expected to generate approximately 100 fewer trips during the Saturday midday peak hour with the reduction in retail/restaurant space.*

**Table 1 University Station Trip Generation Comparison**

<b>Peak Hour</b>	<b>New Trips</b>								
	<b>Weekday Morning</b>			<b>Weekday Afternoon</b>			<b>Saturday Morning</b>		
	<b>In</b>	<b>Out</b>	<b>Total</b>	<b>In</b>	<b>Out</b>	<b>Total</b>	<b>In</b>	<b>Out</b>	<b>Total</b>
<i>Updated Analysis</i>	1,005	559	1,564	1,559	1,692	3,251	1,895	1,767	3,662
<i>Nov. 2012 Analysis</i>	<u>1,028</u>	<u>536</u>	<u>1,564</u>	<u>1,519</u>	<u>1,716</u>	<u>3,235</u>	<u>1,971</u>	<u>1,791</u>	<u>3,762</u>
<b>Difference</b>	<b>-23</b>	<b>23</b>	<b>0</b>	<b>40</b>	<b>-24</b>	<b>16</b>	<b>-76</b>	<b>-24</b>	<b>-100</b>

Comment T2 The Life Time Fitness facility occupies Retail Building R, which is a stand-alone building south of Harvard Street included in the UAMUD. Previous trip distribution assumptions included in the University Station traffic impact study included Retail Building R in the overall retail trip distribution, and assumed that retail trips originating from I-93 and from I-95/Route 128 north of the site would generally utilize the North Site Drive and South Site Drive to access the retail parcels. Trips generated by Life Time Fitness are far more likely to proceed directly to Harvard Street to access the site; trip distribution for the facility should consider the increase in trips and the associated impact on the intersection of University Avenue and Harvard Street.

*Response: The distribution of University Station trips will be altered by the change in use of Building R. The following assumptions were made to update the future 2017 and 2022 Build peak hour traffic volumes at the University Avenue/Harvard Street intersection:*

- *Trips generated by Life Time Fitness will arrive and depart the site based on the regional distribution patterns shown on Figures 23 and 24 of the Nov. 2012 TIS.*
- *Life Time Fitness traffic arriving from the south (24 percent in 2017 and 36 percent in 2022) will turn left from University Avenue onto Harvard Street.*

- *Life Time Fitness traffic arriving from the north (76 percent in 2017 and 64 percent in 2022) will turn right from University Avenue onto Harvard Street.*

*The University Avenue/Harvard Street intersection was reanalyzed for the weekday and Saturday peak hours, with the updated Build peak hour volumes, to confirm that the intersection as currently designed can accommodate the redistribution of University Station trips resulting from the LifeTime Fitness facility. Consistent with the Nov. 2012 TIS, the intersection was analyzed for the future 2017 and 2022 weekday and Saturday peak hour conditions. The results of the analyses are summarized in Tables 2 and 3.*



**Table 2 Summary of 2017 Intersection Capacity Analysis**

Location	2017 Morning Peak Hour					2017 Afternoon Peak Hour					2017 Saturday Peak Hour				
	V/C <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	50% Queue <sup>4</sup>	95% Queue <sup>5</sup>	V/C <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	50% Queue <sup>4</sup>	95% Queue <sup>5</sup>	V/C <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	50% Queue <sup>4</sup>	95% Queue <sup>5</sup>
<b>Harvard St /University Ave (Signal)</b>															
Harvard St Eastbound Left/Through	0.50	31.8	C	32	91	0.76	47.3	D	120	#254	0.70	38.4	D	101	221
Harvard St Eastbound Right	0.07	23.6	C	0	24	0.46	30.0	C	45	114	0.18	22.7	C	0	36
Driveway Westbound Left/Through/Right	0.01	27.8	C	0	7	0.04	31.2	C	4	30	0.00	0.0	A	0	0
University Ave NB Left/Through/Right	0.53	5.6	A	43	184	0.76	13.8	B	120	#366	0.55	9.6	A	72	245
University Ave SB Left/Through/Right	0.45	8.7	A	91	276	0.63	15.6	B	203	483	0.49	14.0	B	126	360
<b>Overall Intersection</b>	<b>0.52</b>	<b>9.4</b>	<b>A</b>			<b>0.75</b>	<b>19.8</b>	<b>B</b>			<b>0.59</b>	<b>16.1</b>	<b>B</b>		

<sup>1</sup> v/c = Volume-to-capacity ratio, <sup>2</sup> Delay = Average delay expressed in seconds per vehicle, <sup>3</sup> LOS= Level of Service, <sup>4</sup> 50<sup>th</sup> Percentile Queue in ft. <sup>5</sup> 95<sup>th</sup> Percentile Queue in ft.

# = 95th percentile volume exceeds capacity, queue may be longer

**Table 3 Summary of 2022 Intersection Capacity Analysis**

Location	2022 Morning Peak Hour					2022 Afternoon Peak Hour					2022 Saturday Peak Hour				
	V/C <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	50% Queue <sup>4</sup>	95% Queue <sup>5</sup>	V/C <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	50% Queue <sup>4</sup>	95% Queue <sup>5</sup>	V/C <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	50% Queue <sup>4</sup>	95% Queue <sup>5</sup>
<b>Harvard St /University Ave (Signal)</b>															
Harvard St Eastbound Left/Through	0.60	49.7	D	49	117	0.91	76.6	E	137	#346	0.70	32.2	C	79	#226
Harvard St Eastbound Right	0.07	34.7	C	0	35	0.51	34.9	C	56	134	0.18	17.7	B	0	30
Driveway Westbound Left/Through/Right	0.01	40.2	D	1	9	0.05	36.2	D	5	34	0.00	0.0	A	0	0
University Ave NB Left/Through/Right	0.91	8.1	A	85	#311	0.94	25.6	C	159	#536	0.83	16.1	B	109	#411
University Ave SB Left/Through/Right	0.41	7.7	A	105	277	0.58	13.4	B	182	432	0.54	14.5	B	114	286
<b>Overall Intersection</b>	<b>0.72</b>	<b>10.9</b>	<b>B</b>			<b>0.93</b>	<b>26.2</b>	<b>C</b>			<b>0.79</b>	<b>17.1</b>	<b>B</b>		

<sup>1</sup> v/c = Volume-to-capacity ratio, <sup>2</sup> Delay = Average delay expressed in seconds per vehicle, <sup>3</sup> LOS= Level of Service, <sup>4</sup> 50<sup>th</sup> Percentile Queue in ft. <sup>5</sup> 95<sup>th</sup> Percentile Queue in ft.

# = 95th percentile volume exceeds capacity, queue may be longer



*As can be seen in Tables 2 and 3, the analyses indicate that the Harvard Street/University Avenue intersection is appropriately designed to accommodate the traffic generated by the Life Time Fitness facility and the balance of the University Station project in a safe and efficient manner. Vehicle queues on the Harvard Street approach to University Avenue are estimated to range between zero (0) and 350 feet, and are not expected to extend to the point that they would impede access to the Life Time Fitness facility driveway which is located approximately 500 feet to the west of University Avenue.*

*Comment T3 – Not provided.*

Comment T4 Provide location for a future shuttle or bus stop as required by the UAMUD rules and regulations.

*Response: To the extent that shuttle or bus service will be provided in the future, it would be provided to the front door of the facility.*

**Parking (§9.8.8.1-3, 5)**

Comment PA1 ITE's *Parking Generation Manual*, 4<sup>th</sup> Edition, 2010 provides an average peak period parking demand of 5.27 vehicles per 1,000 sq. ft. of floor area for Land Use Code 492 (Health/Fitness Club). This rate necessitates 662 spaces for the proposed 125,643 sq. ft. Life Time Fitness facility. The Applicant should demonstrate why the industry-accepted ITE rate is not being met.

*Response: The parking ratio associated with the proposed Life Time Fitness facility is 4.5 spaces / 1,000 square feet. This ratio is consistent with the Life Time Fitness program requirements for a facility of this nature, and is consistent with the Master Development Plan.*

Comment PA2 Provide additional grading and detail to indicate the intention of either flush curbing or ADA ramps along the front parking spaces at west side of the building.

*Response: Additional grading detail has been provided to indicate the configuration of the front sidewalk. ADA ramps will be installed to accommodate pedestrian access in these locations.*

Comment PA3 Provide information on the proposed management of snow for the site.

*Response:* Consistent with the Master Development Plan, snow will be removed from the Life Time Fitness site in the event that it cannot be adequately stored in on-site locations that do not impede site operations or create safety or nuisance concerns.

**Public Safety (§9.8.11.7)**

Comment PS1 Provide documentation from DWWD that there is sufficient water supply and infrastructure for both potable and fire protection purposes.

*Response:* DWWD's consultant, Weston & Sampson issued a letter dated September 5, 2013 stating that the District can adequately serve the University Station project.

Comment PS2 Provide documentation from both the Fire and Police Departments stating that they are in agreement with this design.

*Response:* A second point of access for emergency vehicles has been provided as well as additional information regarding points of access to the pool deck. A follow up meeting will be scheduled with the Fire and Police Chief to review the updated plans.

**Stormwater Management (§9.8.11.8)**

Comment SW1 Provide supplemental soils data including a minimum of four saturated hydraulic conductivity tests at the bottom elevation of infiltration basin 27P (preferably at each of the corners) and a minimum of two deep hole tests at each of the two up-gradient corners of the basin to determine seasonal high groundwater elevations.

*Response:* Four tests were performed within the limits of the proposed Life Time Fitness stormwater infiltration area (IFB-27P) to determine hydraulic conductivity. A copy of the results from this assessment and accompanying report are enclosed with this letter.

Comment SW2 Provide a site-specific, stand-alone stormwater management operation and maintenance plan.

*Response:* A site specific stormwater management and operations and maintenance plan will be prepared for the LifeTime Fitness site, consistent with the University Station Stormwater O&M Plan.

Comment SW3 Proposed grading directs stormwater runoff to low points at center islands. Revise grading or provide additional catchment to eliminate ponding.

*Response: Site grading is designed such that low points are located at the approximate mid-point of the parking areas. Additional spot grades have been added to the site plan to indicate positive drainage away from landscape islands to these stormwater catchment areas.*

Comment SW4 Catchment areas for CBs 621, 624, and 625 are each greater than 1.4 Ac. and have high calculated stormwater flows (8± cfs). Inlets are unlikely to be able to effectively capture these flows. Provide additional catchment, where necessary, to reduce peak flows to inlets.

*Response: Double grate catch basins have been added in catchments where stormwater flows are anticipated to exceed a single grate capacity. Additional catch basins have been added to reduce stormwater flows in larger catchments. The Grading and Drainage Plan (Sheet C-141) has been updated accordingly.*

Comment SW5 Provide hydraulic profile of drainage system up to proposed basin 27P.

*Response: The hydraulic profile of the stormwater management system to the proposed stormwater infiltration basin (IFB-27) are enclosed with this letter.*

Comment SW6 Cover over proposed HDPE drainage lines is as little as 1.2± feet. Include provisions for protecting drainage lines from construction vehicle loadings.

*Response: The proposed drainage system has been adjusted such that the pipes maintain a minimum of two feet of cover at all locations. The Grading and Drainage Plan (Sheet C-141) has been updated and is attached.*

Comment SW7 Include provisions for protecting the infiltrative capacity of existing soils beneath proposed basin 27P. Detail B on sheet C-507 calls for compacted earth subgrade.

*Response: The design and construction of IFB-27 will be consistent with the details provided with the Master Development Plan for the GeoStorage infiltration systems.*

Comment SW8 Indicate proposed locations of double catch basin, grease trap, and oil and grease separator included on details sheets.

Final Construction plans for the infiltration structures (sheet C-507) should include details and design calculations stamped by a Massachusetts licensed Structural Engineer indicating the wall types, materials, layout, and elevations of the various system components. Provide any required subsurface explorations, geotechnical and/or subsurface information, as required by the Massachusetts State Building Code. Final design plans for the recharge structures should consider the following:

*Response: The Grading and Drainage Plan has been updated to show the location of double grate catch basins. The proposed grease trap is indicated on the Utility Plan (Sheet C-151). The Standard Oil and Grease Separator Detail (for use in loading areas) has been eliminated from the detail sheet. The revised plan sheets are enclosed with this letter.*

Comment SW9 Provide design criteria to the Contractor for the design of the system (i.e. HS 25 live load, max. slab deflection, etc.).

*Response: The slab design criteria for IFB-27 will be consistent with the GeoStorage details previously provided as part of the Master Development Plan. The construction documents associated with the proposed GeoStorage infiltration systems will be sealed and signed by a Massachusetts licensed engineer.*

Comment SW10 Consider increasing the end panel overlap with the geo-grid wall below (currently shown as 6”).

*Response: The design of the Geostorage infiltration system for IFB-27 will be consistent with the details previously submitted with the Master Development Plan.*

Comment SW11 Consider requiring the application of a membrane waterproofing on the top and side surfaces of the concrete panels.

*Response: The design of the Geostorage infiltration system for IFB-27 will be consistent with the details previously submitted with the Master Development Plan.*

Comment SW12 Ensure there are sufficient access points for future inspection and maintenance operations.



*Response:* Access ports associated with IFB-27 are now indicated on the Grading and Drainage Plan (Sheet C-141). The updated plan is enclosed with this letter.

Comment SW13 Consider requiring the use of coating (epoxy, galvanized, etc.) for the welded wire baskets and steel reinforcement.

*Response:* The welded wire baskets simply act as a form during construction of the Geostorage system and do not provide any structural support. As such, coating is not required.

Comment SW14 Provide monitoring for structural integrity in operation and maintenance plan.

*Response:* The operation and maintenance of the Geostorage infiltration system for IFB-27 will be described further in the site specific Stormwater O&M Plan.

#### **Outdoor Lighting. (§9.8.11.9)**

Comment L1 Paragraph 9.8.11.9 of the University Ave Mixed Use District (UAMUD) requires that “Lighting shall be designed so as to avoid any material light trespass and glare on adjacent neighborhoods, business areas, and streets. Exterior lighting fixtures shall be of the full-cutoff type, and hoods and shields shall be incorporated as needed to prevent light trespass and glare.” The lighting levels at the parking lot western edge appear to be 0.4-0.6 fc and should be reduced to minimize trespass off the property.

*Response:* As discussed in the November 22<sup>nd</sup> meeting, the lighting design is in conformance with the by-law.

Comment L2 The lighting design does not provide photometric contribution for the outdoor pool area, which could add to the lighting levels, and lighting trespass. If the pool area is to be lit, include these values in the photometric plans.

*Response:* Pool area lighting will be reflected on the updated photometric plans.

Comment L3 The proposed lighting fixtures are listed as dark bronze in color. The applicant should consider black fixtures to be consistent with the lighting design approved in April 2013 for the overall project.

*Response:* As discussed in the November 22<sup>nd</sup> meeting, the Applicant prefers that the light fixtures remain bronze.

**Mixed Uses and Activities. (§9.8.11.10)**

Comment M1 Provide hours of operation, maintenance schedules and seasonal use patterns, especially pertaining to the use and operation of the outdoor swimming pool and bistro.

*Response:* As indicated in the November 13<sup>th</sup> meeting with the Planning Board, the hours of the pool deck will be as follows:

- *Lap Swim: dawn to dusk*
- *Family Swim: 10:00 AM to 8:00 PM*
- *Pool Slide: 11:00 AM to 7:00 PM*
- *Bistro: 11:00 AM to 7:00 PM*

**Construction Solid Waste Management. (§9.8.11.15)**

Comment C1 Provide a general outline of the demolition process in the application narrative. This should include the extent and timing of inspections for hazardous material such as lead paint and asbestos, and crushing and re-use of materials including BUD determinations. Inspection for pest issues should also be appropriate. Copies of filings to the EPA should be provided to the Health Department as required.

*Response:* A Demolition Permit will be obtained. Demolition and abatement will be performed in accordance with applicable local and state rules, laws and regulations.

Comment C2 The application indicates the Proponent's commitments to the requirements of this section of the Bylaw and enforcement is largely a field coordination issue. With regard to the removal of tracks on the easterly portion of the existing site, we recommend that DWWD identify any special requirements with regard to limits of material that should be removed along with the track as dictated by water supply protection policy. Track material removed should be characterized in accordance with state and federal guidelines and stored or removed as dictated by those guidelines.

*Response:* Track removal will be performed in accordance with applicable local and state rules, laws and regulations.

Comment C3 Also regarding track removal, the proponent should verify that the required discontinuances are approved.

*Response: The Secretary of Transportation issued a Chapter 40, Section 54A consent letter on November 14, 2013.*

**Water Quality. (§9.8.11.16)**

Comment WQ1 Provide details of proposed emergency generator to document compliance with Section 9.3.7.5.

*Response: No on-site emergency generator will be included as part of the Life Time Fitness project, however, a manual transfer switch will be provided to be used in conjunction with a temporary mobile emergency generator for building back-up power. Containment requirements for the mobile emergency generator will be addressed in the site specific Operations and Maintenance Plan.*

Comment WQ2 Describe source of runoff to 18” pipe adjacent to pool deck. Discharge of pool water will require approval of DWWD.

*Response: The 18” drainage line connection to the pool deck is intended to collect runoff from the Bistro building roof as well as surface drainage from the Life Time Fitness pool deck. It is not intended to collect discharges generated from the pool. This drainage line has been reduced from 18” to 12” to reflect the evolution of the Life Time Fitness building design. The updated Grading and Drainage plan is enclosed with this letter.*

Comment WQ3 Clarify the location of the Water Protection Overlay District (WRPOD). The WRPOD delineation line does not indicate which side the district is located on.

*Response: Additional clarification has been added to the plans to indicate which side of the line the Water Resource Protection Overlay District (WRPOD) the site lies on.*

Comment WQ4 Provide a copy of DWWD review comments and responses for review and consideration by the Planning Board.

*Response: Coordination with DWWD is ongoing.*

**Spill Prevention and Response. (§9.8.11.17)**

Given the unusually sensitive location of the overall University Station Development Site, and to promote general awareness of facility management, Lifetime should develop their own management plan which should reference the overall Project O+M as

appropriate but also detail circumstances unique to Lifetime and how they would be managed. While the specifics of an O+M plan may be provided as part of a full Construction Document submission, key issues should be highlighted now. The following may highlight additional considerations for the Town.

Comment SP1 Provide specifics on chemical or hazardous material storage or usage as it relates to use of the pool, health and wellness activities etc. that may be unusual or unique to the facility.

*Response: Pool chemicals and/or hazardous materials will be stored on-site. Additional supplemental information related as such will be provided and addressed in a Life Time Fitness specific spill response plan.*

Comment SP2 Provide information on emergency power service.

*Response: Please note the response to item WQ1 above.*

#### **Water Efficiency. (§9.8.11.18)**

Comment WE1 Provide back up on the basis of the water demand using existing Life Time fitness facilities.

*Response: Water usage bills from Life Time Fitness facilities located in New Jersey have been summarized in a spreadsheet and attached for reference.*

Comment WE2 Provide details of proposed Water Sense fixtures and document how 20% water use reduction is obtained compared to baseline building code requirements as part of the construction document submission.

*Response: Fixtures bearing the WaterSense labels are certified by the US EPA to reduce water consumption by 20%.*

Comment WE3 Document total landscape area and water use requirements for irrigation.

*Response: The total landscape area is approximately 60,000 SF, of which approximately 30,000 SF is to be irrigated. The majority of the irrigation will be provided via an efficient drip system and the proposed plants are primarily native/drought tolerant species. The estimated peak summer demand could be as high as 13,000 gallons for certain summer weeks, and about half of that for most of the spring and fall (6,500 gallons per week).*

#### **Signage (§9.8.10)**

Comment S1 Section 9.8.10: Conformance cannot be established. Signage shown on exterior building elevations is not dimensioned, and no materials are identified. There is no signage description in the PDR Report. Section

9.8.10.2 states that the wall signs shall not exceed 2 sq. ft. of signage for each linear foot of façade.

*Response:* *Supplemental building signage shall be provided to demonstrate conformance and it shall indicate:*

- 1. Building wall signage will consist of halo lit, raised letters in a combination of brushed or polished aluminum.*
- 2. Building wall signage will comply with signage size regulations with a protrusion of no more than 5" from building face.*

Comment S2 Development Identification Sign (called a monument sign in the plans) conforms to Section 9.8.10.1.

*Response:* *We concur.*

Comment S3 Provide dimensions of wall signs relative to exterior elevations to demonstrate conformance.

*Response:* *Please note the response to item S1 above.*

Comment S4 Provide information regarding sign illumination.

*Response:* *Please note the response to item S1 above.*

**Comments provided by the Department of Public Works dated Nov. 11, 2013:**

Comment 1: The proposed sewer is considered a service to one building. The sewer division regulations require a 2% (0.02 ft/ft) minimum slope in the sewer pipe connecting to the sewer main. Also, common design practice of sewer systems attempt to provide a minimum velocity of 2 ft/sec for sewage traveling in the pipe. The proposed sewer service consists of 8" and 6" PVC pipe and is installed at various slopes, all less than 2%. The proponent has provided engineering narrative explaining the design with minimum pipe slope of 0.7% and velocity of 1.88 ft/sec. with the expected flows. The plans have been stamped and signed by a MA registered P.E. and will be monitored for two years to ensure proper operation. We request to be notified of the inspection and allowed to observe and to be given inspection/video results of the inspection. If the installed service is shown to be non-functioning the DPW shall not be held responsible.

*Response:* *The Department of Public Works will be notified prior the annual inspections.*

Comment 2      The sewer invert shown at the connection to the existing sewer manhole (sheet C-151) differs by 1.1' from the sewer division's sewer record plan (SW-76). The elevation should be verified to correct any discrepancy, and the datum that the survey was done on should be stated on the plan.

*Response:*      *The elevation difference is likely due to different datums. The record plans are likely on NGVD 29, whereas the current survey is on NAVD 88.*

Comment 3      The grease trap shown on sheet C-151 located in the south west corner of the site does not appear to be able to be accessed for routine cleaning/maintenance as required by regulations. Please show and/or verify that access for equipment required to perform routine maintenance will be provided.

*Response:*      *The Bistro grease trap has been relocated to the east end of the pool area. Maintenance equipment will be able utilize the stabilized surface to access the grease trap.*

Comment 4      All sewer pipe installed shall be pressure tested and all manholes shall be vacuum tested in accordance with sewer division regulations. The sewer division shall be notified 24 hr. in advance of scheduled testing and shall witness the testing. Pipes and manholes that do not pass the test shall be repaired and retested in same manner.

*Response:*      *Comment acknowledged.*

Comment 5      Proponent shall apply for sewer connection permit and pay all applicable fees prior to any construction affecting the sewer service including abandoning of existing service.

*Response:*      *Comment acknowledged.*

**Memorandum provided by the Board of Health dated Nov. 13, 2013:**

*We acknowledge the receipt of Board of Health's memorandum and all Board of Health Regulations shall be complied with.*

**Comments provided by the Fire Chief dated Nov. 13, 2013:**

Comment 1      I request that the center dividing island on the main entrance roadway be

recessed from the curb line to allow for better access.

*Response:* *The center divider island has been recessed to improve access.*

Comment 2 I request that the turning templates for fire apparatus be applied to show apparatus exiting the center parking opening and turning towards Harvard Street to ensure proper clearance.

*Response:* *Additional turning movements have been added to Sheet C-131.*

Comment 3 I request that the access way at the rear of the building be constructed to a width of 14 feet. At least 10 feet must be hard surface and 2 feet on either side may be pervious material, so long as it may be winter maintained.

*Response:* *The rear access has been increased in width to 14 feet.*

Comment 4 Although not the purpose of this review, I request that consideration be given to ambulance access to the structure including the ability for an ambulance cot to fit in the elevators.

*Response:* *Ambulance access is readily achievable at the front building entry and all elevators are sized adequately to accommodate ambulance cots with minimum interior clear dimensions of 88" x 65" (103" on the diagonal) per IBC 2009 Section 3002.4 "accommodating ambulance stretchers."*

Comment 5 It is assumed that lacking any legal right of way to the property at 349-365 University Avenue, that no ability to pass between the two properties will be maintained. Although not the responsibility of the applicant, the proposed elevation of this project does lessen the accessibility to both properties.

*Response:* *Comment acknowledged.*

Comment 6 Access/egress details for the exterior pool deck need better clarification for occupant exit during emergencies as well as Fire Department access from the exterior.

*Response:* *Access/egress locations for the exterior pool deck are now shown on C-131.*

Comment 7 Having only one drivable entryway to a building that is set back nearly

500 feet from the roadway is a concern. Consideration must be given to secondary emergency entrance.

*Response:* A secondary point of access has been provided and is reflected on the updated Site Plans.

**Comments provided by the Police Chief dated Nov. 13, 2013:**

Comment 1 I do not care for the one entrance/exit point. This can be an issue if there is an accident either at the entrance on Harvard St or the first turn point within the parking lot. Any problem at either of these points would lock everyone into the property with no exit possible (an probably more important - no emergency access.) With a second point of access cars could be detoured around the problem. I saw this issue first hand a week ago when Norwood was paving Nahatan Street. Norwestwoods apartment complex has a single driveway separated by a traffic island. When paving in front of the entrance, residents (and emergency vehicles) could not get in or out. The paver actually broke down while paving the entrance and could not be moved. Although there were no emergencies during that time, tempers were flaring.

*Response:* A secondary access driveway has been added and is shown on the updated Site Plans.

Comment 2 I would like to see more detailed plans about the outdoor pool area. There should be adequate access for the police into the pool area should there be any disturbances or medical emergencies. That is not clear from the plans. I would hope that the plan isn't for us to go through the building to access the pool deck, especially if there are functions being held out there.

*Response:* Access/egress locations for the exterior pool deck are now shown on C-131.

Comment 3 If the peer review indicates the need for more parking I hope that would be supported. If there is not adequate parking patrons will likely park in the entrance driveway further complicating things.

*Response:* Please see the response to Comment PA1.



Comment 4 I did not see plans for signage but I hope the entrance driveway will be adequately signed as a Public Safety/Fire Lane in order to prevent people from parking in it. As this driveway will be on private property the only way for us to keep people from parking in the driveway would be if it is properly marked. (This is even more important if they are allowed to keep the single entrance.)

*Response: Parking will not be permitted along the main entrance drive. As indicated above, a secondary point of access has been provided and is now shown on the updated Site Plans.*

As always, please do not hesitate to contact me should you have any questions or wish to discuss any of the enclosed information in greater detail. I can be reached at (508) 903-2085.

Sincerely,



Nathan H. Cheal, P.E.  
Project Manager

Cc: John Twohig, Esq. – Goulston & Storrs  
Scott Ferguson, :LTF  
Ian Ramey, SA  
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