Environmental Land Solutions, LLC
Environmental Analysis, Landscape Architecture & Planning

June7, 2017

Life Time Fitness
2902 Corporate Place
Chanhassen, MN 55317
Attention: Megan Eaton

Re: Environmental Assessment - Proposed Life Time Fitness
High Ridge Office Park, Stamford, CT

Dear Ms. Eaton:

Life Time Fitness is proposing the development of a recreational facility at the above referenced property. The site contains inland wetlands and a permit from the Stamford Environmental Protection Board (EPB) will be required for the proposed work. However, at this juncture, I understand that only a Text Amendment to the Zoning Regulations is pending and the development plan remains conceptual in nature. Environmental Land Solutions, LLC (ELS) has been retained by Life Time Fitness to prepare this Environmental Assessment report which describes the project with emphasis placed on inland wetland and watercourse resources, their functions and potential development-related impacts to these regulated areas. This report also describes proposed Best Management Practices (BMPs) and recommends mitigation measures designed to minimize anticipated development-related impacts to regulated areas and to enhance the site's overall environmental value. To complete this task, ELS reviewed the "Conceptual Layout Plan, CP-6.1," prepared by VHB, dated 4/21/17 and visited the site on April 26, 2017. ELS staff also visited portions of the site and prepared a landscape plan in 2007 for previous unrelated site improvement work.

Existing Conditions

The property consists of a total of approximately 38.8 acres and consists of two (2) separate legal parcels. These parcels are developed with a series of six (6) office buildings and related parking and site improvements. The subject site is currently improved with an 84,000± square foot office building and related improvements, known as Building 3 (the "Subject Site"). The somewhat linear site, measuring 300'± wide by 950'± deep, is located on the southwest corner of the property and is bordered by Sunrise Senior Living to the west, High Ridge Park offices to the north and east, and residential properties to the south. An existing

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reflecting pool and office buildings lie adjacent to the eastern Subject Site boundary. The Subject Site currently contains a lawn area near High Ridge Park Road that gently slopes to the north, a 3/4 acre wooded, 10' ± high hillside in the northwest corner of the property, park-like grounds with ornamental plantings near the center of the site, and Building 3 and parking areas to the south that generally pitch to the south and west. The wooded hillside is vegetated with Oaks, Black Birch, Hickory, Apple, and Red Cedars. Norway Maples and Burningbush, two nonnative invasive species, are also found within the wooded area. Norway Spruces, a Weeping Willow, Flowering Dogwoods, Red Cedars, and Crabapples are found in the park-like areas. Rhododendrons and Yews grow along the Subject Site's existing building foundation.

Inland Wetlands and Watercourses

Inland wetlands were identified by Northeast Soils in 1996 and include a single large "L" shaped wooded wetland along the southern and southwestern property areas and straddle the boundaries with adjacent properties. The wetland areas are generally wooded with lower swamp areas and ponding water. The ponding areas appear to have been created by past dredging some time ago with the spoils deposited nearby. The wetland areas are bordered by an existing large parking area to the northeast. Stormwater runoff from this adjacent parking lot flows directly into the wetlands untreated through about 15 leak-off points within the curb line. The wetland contains windblown litter in numerous locations. Landscape debris piles, including branches and lawn clippings, have been deposited along the wetland edge in various locations.

The Subject Site's wetland area to the southwest of the site contains a small on-site ponding area that extends off the site to the west into a 500' ± long by 50' ± wide shallow linear pond oriented in a north to south direction. The on-site portion of the wetland area ranges roughly 45' to 85' in width and east of the linear offsite pond. The southwest wetland area is bordered by a large existing parking lot that is located 4' to 10' to the east, within the wetland setback area.

The wetland area to the south of the parking lot is also wooded and contains a long narrow shallow ponding area. The existing parking lot ranges from 13' to 30' from the edge of the wetland line. A pond, with water elevations maintained by a small wooden dam, is found offsite to the south.

The wetlands are vegetated with Red Maple, American Elm, Black Cherry, Highbush Blueberry, Clethra, Arborvitae, Spicebush, Swamp Rose, Arrowwood Viburnum, Skunk Cabbage, Tussock Sedge, Poison Ivy, Mayflower, Jack-in-the-Pulpit, Onion, Toothwort, Cinnamon and Sensitive Ferns, Moss, and Duckweed. Multiflora Rose, Phragmites, Garlic Mustard, English Ivy, Vinca, and Barberry, nonnative and invasive species, also grow within the wetland area. White Pines grow between the southern wetland area and the parking lot to the north.

Wetlands Functions

The recognized functions provided by the onsite wetland and watercourse areas are influenced by a number of site characteristics. The presence of the perennial watercourse and general undisturbed nature of the wetland corridor contributes to the overall value of the onsite wetland corridor. However, the relative narrow width of the existing onsite wetland buffer limits the value of some of the wetland functions.

The functional evaluation of the Subject Site's regulated areas described below is based on professional experience and the suggested criteria cited in the publication entitled "The Highway Methodology Workbook *Supplement*, Wetland Functions and Values, *A Descriptive Approach*," prepared by the US Army Corps of Engineers, NEDEP-360-1-30a, September 1999. Using this publication as a guide, the primary functions of the wetland-watercourse areas were identified as follows:

Groundwater Discharge - Based on the low-lying landscape position, the Subject Site's wetland and watercourse systems lend themselves to being a source of groundwater discharge.

Floodflow Alteration (Storage & Desynchronization) - Due to the size and position of the wooded wetland within the watershed, the wetland has the capacity of collecting and temporarily detaining stormwater runoff from the surrounding watersheds.

Sediment/Toxicant/Pathogen Retention - The physical characteristics of the wetlands (i.e.; gently sloping topography with dense vegetation) allows for the trapping of waterborne sediments from slow moving surface water flows. This function occurs greater in areas where stormwater runoff is slowed by dense vegetation, physical restrictions (such as stone walls or logs), ponding areas, and/or gentle topography where sediments are removed/deposited from stormwater runoff.

Nutrient Removal/Retention/Transformation - Wetland areas that have gently sloping topography with dense vegetation cover have the capacity for nutrient uptake/removal from stormwater by plant uptake. This function occurs more in gently sloping areas where surface water flows are slow and infiltration is greater.

Production Export - The vegetation within this wetland provides a source of food for wildlife.

Sediment / Shoreline Stabilization - The wetland's dense vegetation and surface boulders provide soil stabilization of the adjacent ponding areas.

Wildlife Habitat - The presence of dense vegetation which is capable of providing food, roosting areas, and nesting sites, and the presence of sources of fresh drinking water within the wetlands makes this area valuable as wildlife habitat.

Recreation - The Subject Site's wetland and river areas provide opportunities for nature photography and wildlife observations.

Visual Quality / Aesthetics - The wetland corridor provides a visually pleasing setting.

Finfish Habitat, Uniqueness / Heritage, or Threatened or Endangered Species Habitat are not significantly provided or are not applicable to the wetland.

Wildlife

Wildlife usage of the site will be mainly by species adapted to suburban properties and small woodland tracts. The wetland's woodlands and source of surface water that extends off the site provide wildlife habitat for a range of species. However, the existing adjacent development (e.g., parking area), limits the overall value. Based on calls, tracks, nests, and/or sightings, the following wildlife species were using the site during or near the time of the site visit: White-tailed Deer, Grey Squirrel, Canada Goose, Killdeer, Mallard, Flicker, Downy Woodpecker, Titmouse, Clack-capped Chickadee, White-breasted Nuthatch, American Robin, Blue Jay, Blue-headed Vireo, Yellow-rumped Warbler, White-throated Sparrow, Chipping Sparrow, Song Sparrow, Red-winged Blackbird, Cowbird, Goldfinch, Red-back Salamander and frogs.

A review of the online CT DEEP NDDB map (June 2017) indicates that the site lies outside of any delineated "State and Federal Listed Species & Significant Natural Communities" area. In addition, ELS staff observed no species of special concern, threatened species, or endangered species on or near the site during the site visits.

Proposed Condition

The Life Time Fitness conceptual site plan illustrates an intent to redevelop the Subject Site by demolishing the existing Building 3, constructing a new building in the vicinity of the existing building, improving the existing southern parking lot, constructing a new parking lot adjacent to High Ridge Park Road, and constructing an outdoor pool near the center of the site. The existing reflecting pool is proposed to remain but would be reduced in size. A dense landscaping buffer, including evergreen trees, are also shown along the perimeter of the development for screening purposes.

Although not designed at this preliminary stage, the applicant's engineer has advised that they are studying the feasibility of planted water quality basin adjacent to the existing southwestern wetland. The basin, which would likely be located within the existing parking lot pavement, will trap water borne pollutants (sediments), remove nutrients through plant uptake, and reduce thermal pollution from collected stormwater runoff that sheet flows off the development's parking lot.

Impacts to Wetlands and Watercourses

Potential impacts to regulated areas that are typically associated with site development are characterized by those that are either direct or indirect and short-term or long-term. Direct impacts occur when there is an actual disturbance to a wetland or watercourse or other physical alteration of the wetland. Indirect impacts result from development activities that are located outside of a regulated area. Short-term wetland impacts resulting from site development are those that are temporary in nature and generally associated with construction erosion and sedimentation. Long-term wetland impacts resulting from site development are typically permanent and generally associated with wetland filling, a decline in a wetland's water quality (including thermal pollution), diminished groundwater recharge, alteration of hydrology, reduction of recreational opportunities, and habitat loss.

No direct wetland impacts are proposed by the proposed development. In areas bordering wetlands, the proposed development generally maintains the same limit of development as present conditions. The following activities are projected to be located within the 25' upland review area of the wetlands:

1. Construction of the water quality basin. This basin is anticipated to be located on land currently used as a parking lot and will not disturb any wetland buffer vegetation.

2. A retaining wall is contemplated approximately 15' from the wetland at its northern tip. Portions of the land to be disturbed by the wall within 25' of the wetland are maintained as a parking lot or thinly vegetated landscape areas.

3. Bordering the southern wetland area the existing parking lot will be repaved. The new parking lot will be no closer to the wetland than the existing parking lot.

The typical development-related impacts to regulated areas are as follows along with an explanation how these impacts will be minimized and mitigated.

Short-term Degradation of Water Quality: During construction, short-term water quality impacts, such as erosion and sedimentation, will be controlled by the use of properly installed and maintained erosion and sediment controls. Earth disturbance proposed on the Subject Site's gently sloping topography is not anticipated to be a significant erosion and sedimentation concern.

Long-term Degradation of Water Quality: Currently stormwater runoff flows untreated into the wetland through 15 leak-offs. The contemplated drainage system may include a water quality basin that would treat stormwater runoff from the development's parking lot prior to discharging into the Subject Site's wetland areas. In any event, the water quality of the stormwater runoff entering the wetland will be improved over current site conditions given that it is completely untreated today.

Alteration of Hydrology: Proposed drainage patterns will generally match existing conditions and the development will not significantly alter the Subject Site's wetland hydrology.

Reduced Recreational Opportunities: The proposed development will not reduce the wetland's limited recreational opportunities that exist today.

Loss of Wildlife Habitat: The wetland and adjacent wooded wetland buffers will remain generally unchanged. If the water quality basin is feasible, it will provide additional wildlife habitat bordering the Subject Site's wetlands. With the Subject Site's improved water quality discharging into the wetlands from the development, it is anticipated that the wetland habitat will also be improved. Away from the wetland, there will be some loss of upland woodland habitat as the wooded hillside in the northern portion of the site is developed. However, a significant quantity of new plantings are contemplated, especially around the western and southern property boundaries, which will minimize long term wildlife impacts in upland areas.

Best Management Practices (BMPs)

To the extent feasible, the following BMPs that will be incorporated into the proposed development at the time of site plan submission for the purposes of avoiding and/or minimizing potential adverse impacts to regulated areas:

a. *erosion and sedimentation controls* - erosion and sedimentation will be controlled by the use of silt fencing to trap sediments within stormwater runoff, anti-tracking pads to remove sediments from tires of construction vehicles, and watering of the site as needed to prevent dust.

b. *catch basins fitted with sumps* - designed to improve water quality by trapping sediments from roadway stormwater runoff. Accumulated sediments will be periodically removed as needed to maintain the basins in proper working order.

c. *swirl concentrator* - designed to improve water quality by trapping road sediments, floatables (litter), and vehicle oils and grease from stormwater runoff. Accumulated sediments, litter and oils will be periodically removed as needed to maintain the system in proper working order.

d. *underground infiltration galleries* - designed to store stormwater runoff for a period of time and infiltrate stormwater runoff into the ground. Underground infiltration galleries thus reduce flooding, recharge groundwater, and removes dissolved pollutants as it filters through the soil below. Underground galleries also reduce thermal pollution associated with heated runoff from pavement areas.

e. *water quality basin* - designed to infiltrate stormwater runoff which reduces the runoff volume from the development and recharge groundwater. As infiltration occurs, the basin will trap pollutants and reduce thermal pollution associated with heated stormwater runoff from development areas and provide wildlife habitat.

Other long-term wetland impacts, such as wetland filling, decreased groundwater recharge, reduced stream flow during dry seasons, increased non-point source of water pollution (including petroleum products from vehicles and thermal pollution), diversion or dewatering of wetlands or watercourse, loss of flood water storage, loss of open water shading, alteration of riparian habitats, and discharge of road sands and oils into regulated areas are not applicable to the proposed project.

Recommended Mitigation Measures

In addition to the BMPs listed above, Life Time has agreed to study the implementation of the following mitigation measures which are recommended to improve the general environmental quality of the site by providing additional treatment and infiltration of stormwater runoff, decreasing non-point water pollution sources, controlling nonnative invasive species, increasing plant diversity, increasing soil stability, increasing recreational opportunities, and enhancing wildlife habitat. These mitigation measures, some of which may already be depicted on the conceptual site plans, include:

1. To the extent feasible, stormwater runoff from the proposed northern parking lot should be filtered by use of several treatment measures, such as catch basins fitted with deep sumps, a swirl concentrator, and underground detention galleries, to avoid adverse water quality impacts to regulated areas.

2. Near the northern tip of the wetland near the middle of the western property line, the proposed retaining wall located within the 25' wetland setback should be relocated to the edge of the existing pavement to avoid any further disturbance within the 25' wetland upland review area. This could require an increase in the wall height. Therefore, the feasibility of this relocation will need to be determined during the final design process.

3. Near the northern tip of the wetland near the middle of the western property line, the landscape debris piles should be removed along with any wind blown litter within the wetland and wetland buffer.

4. The land between where the water quality basin is contemplated and wetland buffer to the west should be planted with native shade trees (such as Red Maple, Tuliptree, Red and Swamp White Oak, Shad, and Blackgum) and shrubs (Arrowwood, Bayberry, Winterberry, and Clethra) for wildlife enhancement purposes.

5. The small Phragmites stand should be controlled (cut and sprayed with an appropriate herbicide) to prevent this nonnative invasive species from spreading into adjacent landscape areas.

6. Additional high-valued wildlife trees (such as Oak and Shad) should be planted around the perimeter of the development for wildlife enhancement purposes.

Summary

Life Time Fitness is proposing a redevelopment of the Subject Site that includes a new Life Time Fitness building, outdoor pool, parking areas, and landscaping. The wooded hillside about 200' to the north of the Subject Site's wetlands, is to be cleared and graded. Existing wetlands are located along the southern border of the site, extending offsite to the south and west. No disturbance to inland wetlands or watercourses is proposed and only minimal disturbance (mainly landscaping) to the 25' upland review area is proposed. Currently there is no designed treatment of stormwater runoff from the Subject Site's large parking lot. The development will include a complete stormwater management and treatment strategy which will significantly improve the quality of the Subject Site's stormwater runoff. Mitigation measures have been recommended within this report to lessen potential environmental impacts and to enhance the values of the wetland and wetland buffer and Life Time has agreed to include these measures in its forthcoming site plan application, to the maximum extent feasible. With the incorporation of the described BMPs and implementation of appropriate mitigation measures, no significant adverse impacts to regulated areas are anticipated from the proposed development. When completed, the development preserves the existing values and functions of the wetland while allowing for reasonable redevelopment of the site.

Sincerely,

Matthew J. Popp PE
Professional Wetland Scientist / Landscape Architect
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