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WETLAND BOUNDARIES • POND & LAKE MANAGEMENT • CONSTRUCTION FEASIBILITY CONSULTATIONS • ENVIRONMENTAL STUDIES

Environmental Comments

450 James Farm Road, Stratford, CT
IWWA APPLICATION # 2014-13

Date: February 17, 2015

By: Steven Danzer Ph.D.

- Soil Scientist – Certified Nationally by the Soil Science Society of America (#353463).
  – Registered with the Society of Soil Scientists of Southern New England.
- Professional Wetland Scientist - PWS #1321, Society of Wetland Scientists.
- Certified Professional in Erosion and Sediment Control, CPESC #2397.
- Arborist - CT DEEP License S-5639.

- Ph.D. - Renewable Natural Resource Studies.

SCOPE OF REVIEW

At the request of interested neighboring parties, an independent environmental review was conducted of the application materials submitted to date of this report to the Town of Stratford Inland Wetlands Agency for activities proposed at 450 James Farm Road, including public hearing testimony and exhibits. The site was viewed during the week of 2/10/15 (with snow cover) from the perspective of several vantage points along Judith Terrace, James Farm Road, and several adjoining properties. Aerial photographs of the site were also reviewed via Google maps, the CT ECO website, and from within the application materials.

It should be noted that I have extensive familiarity and experience with the site. I had previously visited and/or viewed the interior of the site in 2002 and 2003 on behalf of the IWWA during my tenure as the Environmental Planner for the Town of Stratford, when I was involved in the review of an earlier Wetland Permit Application on that property. In 2004 and 2005, I was also

involved in the review of a Wetland Permit Application for a subdivision of the adjacent property to the north.

The following comments are offered for the consideration of the Wetlands Commission.

COMMENTS

1. Landscape Context Under Existing Conditions

The on-site functions and values of the wetland and watercourse resources have been well documented in the report prepared by Rema Ecological Services (dated 2/5/15). They were also alluded to in the Applicant's own environmental report prepared by Environmental Planning Services (dated 10/23/14). All involved parties, especially the Applicant, seem to agree that the wetland resources on site perform valuable functions and therefore are worthy of protection in their own right.

However, much of the focus of the testimony to date of this report has been focused on the functions and value of the wetland and watercourse system due to characteristics of the system inherent to the site itself.

There has been comparatively less discussion in the application materials about the significance of the off-site context to the review of this Application (with the notable exception of the lengthy analysis by Rema Ecological Services regarding the wildlife corridor linkages). Less attention has been reserved for the documentation of the site's relationship with the greater landscape and watershed, and how that relationship enhances the value of the site, and how this warrants specialized protection of the natural resources in order to maintain the existing functions and values of not only the wetland resources on site, but also the greater wetlands and watercourse system off site as well.

With that observation in mind, two characteristics of the greater watershed context deserve mention:

- First, the perennial watercourse which flows from the site is noteworthy for its relatively short run to its outlet.

- Second, within that short run to its outlet, the perennial watercourse is noteworthy for its relatively undeveloped wooded buffer.

Regarding the first consideration, the short run of the perennial watercourse, the site itself is located midway within a relatively small 223 acre watershed which drains into the Housatonic River. The drainage outlet to the Housatonic is located east of River Road (Route 110), roughly 750 feet south of the intersection of River Road and Main Street. The linear length of the watercourse from the site to the Housatonic (including culverted sections) is approximately 4500 feet, a relatively short run for a coastal watercourse in our region. This makes this perennial stream system ***a direct conduit*** for any pollutants and/or sedimentation into the Housatonic. The Housatonic River is recognized as valuable environmental resource within our region, and as an important connection to the Long Island Sound, another recognized environmental resource, the ultimate receptor for pollutants.

Regarding the second consideration, the relatively undeveloped wooded buffer from the site down to the outlet, a GIS (Geographic Information System) analysis of the 2012 aerial photographs available through the CT ECO website indicated that along the 4500 length of stream from the site to the Housatonic, there are 19 residential or institutional properties within or directly adjacent of the perennial stream path – 8 properties above Route 15 and 11 properties below.

Within these 19 properties adjacent to the perennial stream channel, only 3 appear to have buildings or other impervious structures within 50 feet from the stream channel. The protective downstream buffer is relatively intact for this particular stream system. In contrast, most of the other stream systems within Stratford, especially those with segments below Route 15, have less intact stream buffer, and have significantly higher levels of development closer to the stream channel than this particular stream system. Since this stream system suffers less from the negative effects of historically cumulative impacts than most of the other stream systems in Stratford, it deserves a higher level of protection. It is always more efficient to protect than to repair ecosystems.

In summary, this stream system is noteworthy due to its relatively short run from the site to its outlet, and because within that stream run, the buffer is still relatively intact.

The relatively short run of this stream system to its outlet, in combination with the relative intactness of its downstream buffer in relationship to the surrounding "built environment" are factors that enhance the environmental value of the wetland resources on site beyond the values and functions documented in the reports by Rema Ecological Services and by Environmental Planning Services.

Specialized protection of this stream system is warranted not only to maintain the existing functions and values of the wetland and stream system on site, but to help maintain the quality of the Housatonic and Long Island Sound aquatic ecosystems as well.

2. Application History

In 2002 and 2003, while I was Environmental Planner for the Town of Stratford and staff to the Inland Wetlands Commission, I had opportunity to investigate the site during the review of the Wetland Permit Application for a 2 lot subdivision.

The conditionally approved plans (see attached Approval Letter and minutes) included a moderately sized single family dwelling (approximately 2400 sf in footprint) on the current lot in question, along with driveway and septic system, and very limited clearing of forest.

The approved conditions included a conservation easement extending 50 feet off from the wetland line. The limits of forest clearing were designated as 100 feet from the wetland line. During the Planning and Zoning process, the conservation easement was then extended to 50 feet offset from the entire eastern property boundary, due to the recognition of the quality of the upland forest resources and its role in protecting the wetlands.

Discussion and analysis at the time regarding the appropriate width of the Conservation Easement was based on the assumption of a single family residence being erected on Lot 2. Anticipated impacts were based on an analysis of a development of that size, scale, and magnitude.

In 2004 and 2005, the owner of the adjacent property to the north, 530 James Farm Road, similarly applied for a 2 lot subdivision, mirroring the approved development to the south. My staff report at the time similarly recommended a 50 foot conservation easement on that site as well. The applicant for 530 James Farm, understanding what was perceived at the time as the responsible build out on both the 530 James Farm Road and 450/480 James Farm Road properties, graciously agreed to my recommendation, and filed his easement as well on the Land Records.

Four points to be gleaned from this history:

a. By approving a 2 lot subdivision, the Commission demonstrated at the time that some level of development was possible on 450 James Farm Road and even desirable on that parcel. (i.e. the Commission demonstrated that they were not anti-development with regard to the site, rather they were concerned with appropriate level of development).

b. Any wetland impacts due to the single family residence proposed on Lot 2 were concluded to be non-significant, and any anticipated future cumulative impacts that might result from the single family site design were found to be consistent with the historical and future land-use within the neighboring properties.

c. The approved 2003 site development plan is a legally practical, as well as a feasible and prudent, alternative to the site plan currently under review.

d. The 50 foot width of the conservation easement on the 2003 plan was tailored to provide the necessary protection to the stream ***from the anticipated impacts of single family residential development***, not from the effects of a higher density disturbance footprint such as the one that is currently being proposed. Had I reviewed a larger scale development than a 2 lot subdivision with a single family residence on the lot in question, in all likelihood I would have strongly recommended a wider conservation easement.

Regarding the last point, the width of the protective buffer, I fully concur with Rema Ecological Services's recommendation, that an undisturbed upland buffer of 80-100 feet or more is needed to maintain existing principal functions of the wetland and watercourse stream system, and to protect and maintain the additional functions and values that I presented in the above section 1 of this report.

Even back in 2002/2003 it was recognized that a 100 foot was required for adequate protection of the wetland and watercourse resources (from the impacts of single-family development), *hence condition #1 in the approval to demarcate the limits of clearing at 100 feet* ***in addition*** *to the Conservation Easement at 50 feet.*

In summary, the previously approved site plan, found at the time to protect the wetland resources from the anticipated impacts of a single family development on the lot in question, represents a feasible and prudent alternative to the current development. It represents a minimal standard of protection for the wetland resources from the impacts of single family development. The current proposed development has a significantly greater disturbance footprint, including landscape clearing and drainage modification closer than 100 feet to the wetlands (as documented by Rema, staff, myself, and others). *Yet the standard of protection now being proposed is less than what was originally approved a decade ago,* since the original protective buffer was formulated with a single family development in mind.

3. Sewer impacts

Town Conservation and Engineering staff have noted that there is a lack of information provided by the applicant regarding the future installation of the sewer line, a regulated activity that will be made inevitable as a result of the proposed construction and implementation of the applicant's Sewer Pump Plan. Among the information missing from the Application Materials are wetland surveys for several properties impacted by the sewer easement.

In the advent of a sewage leakage from the site itself (which logically will be inevitable given that the application has failed to adequately detail as to how they propose to remove the raw sewage from site), the perennial watercourse, since it is located down slope a few feet from the developed portion of the site, will be the receptor of such a sewage release.

Raw sewage is harmful to the wetlands and the watercourse because it contains fecal bacteria and heavy concentrations of nitrogen.

Fecal bacteria, when released into a stream, poses a human health hazard and threatens the recreational use of the watercourse downstream, including and especially the waters of Long Island Sound.

Excessive nitrogen, when released into a stream, causes eutrophication (heavy growth of aquatic plants), bacterial blooms, and ultimately a state of hypoxia (lack of oxygen) in the water column. This in turn results in the death of sensitive aquatic organisms such as benthic (stream bed) invertebrates, shellfish, and fish. Under existing conditions, it has been documented by EPS (environmental consultant for the applicant) and others (and observed myself during my previous tenure as Environmental Planner for the Town) that the perennial stream supports all of these types of aquatic life, especially in its downstream segments. A release of raw sewage will impair the stream's ability to maintain these aquatic life forms, all of which of whom are essential for the healthy function of the wetland and watercourse system.

The length of the stream from the site to its outlet in the Housatonic River is relatively short (4500 linear feet), as discussed in section 1 on this report. This makes this perennial stream system a direct and efficient conduit for any pollutants into the Housatonic. The Housatonic River is recognized as a valuable environmental resource within our region. The Housatonic River is also significant as an important connection to the Long Island Sound, another recognized valuable environmental resource in our region. Periodic hypoxia due to excessive nutrient loading is already recognized as a pre-existing issue in the Sound, and any release of sewage from this site that flows into the Sound will exacerbate this condition.

4. Hydrological Impacts Due to Removal of Forest Cover

As Rema Ecological Services and others have noted, approximately 1.66 acres of mature upland forest canopy will be removed for the project. Grading is formally proposed right up to the edge of the Conservation Easement. The construction of the edge of the stormwater detention basin will cause additional disturbance within the Conservation Easement area itself. The result of all of these disturbances is that the only natural, undisturbed forest cover to be left on the entire 2.26 acres site will be a narrow 30-50 feet wide swath of remnant forest along the eastern property boundary.

The existing forest vegetation influences groundwater levels and limits the ability of the site to generate surface runoff. Under existing conditions, it is reasonable to expect, based upon basic forest hydrology, that the current forest canopy intercepts, transpires (i.e. drinks) and/or evaporates up to 40-50% of incoming precipitation (for estimation see "Hydrology and the

Management of Watersheds", Third Edition, 2003, Brooks et al; also, Lu et al 2003) before the precipitation has the ability to infiltrate into the groundwater or run off the surface of the site.

Further supporting this notion, the Rema Ecological Services report estimates that a typical large oak tree (of which are found in abundance on the site) transpires 40,000 gallons/year, an estimation that is also firmly grounded in the scientific literature. It should be noted that the estimation that REMA cited still understates the capacity of the existing forested vegetation to prevent runoff and/or prevent infiltration into the groundwater, since the estimation focuses solely on transpiration (i.e. tree drinking) and does not even take into account amount of precipitation intercepted and evaporated from leafy and woody surfaces before the tree even has a chance to drink it. Therefore the amount of moisture removed by a typical mature Oak (or similar hardwood tree) is actually higher than even the 40,000 gallons/year estimation cited by REMA.

Removal of 1.66 acres of the forest canopy, all of which drains towards the wetlands, will therefore increase runoff volume and raise groundwater levels within the site. This will lead to the following negative and adverse consequences detailed below:

The portion of that runoff directly generated by impervious surfaces will be captured by the stormwater system and detained (assuming the basin is functional enough to catch and detain, which in itself is arguable.) The rest of that runoff, the portion generated by the disturbed areas not directly located within the engineered catchment system (such as the areas east of the parking lot) will drain directly towards the wetlands and the perennial watercourse. Since the removed trees will no longer be able to evapo-transpirate (i.e. to drink from the groundwater table and/or evaporate excessive precipitation through its leaves and other surfaces) the groundwater table will be expected to rise throughout the site, and especially in the non-paved portions of the site east of the parking and building, on the gentle slope which leads down towards the wetlands and the perennial watercourse.

It should noted that there is already documentation on the record of moderate to high ground water levels in that area east of the proposed parking areas and driveways. Furthermore I can personally attest to the presence of a high groundwater level back in 2002 when I field reviewed the wetland boundaries for the 2 single family lot proposal. Since 2002 the land cover type (forest) on the site has not substantially changed, and as such I would expect that my field observations from then to also be applicable to the present analysis.

The proposed stormwater basin design does not take into account a rising groundwater table, which will saturate its medium, decreasing its storage capacity. As a consequence, the basin will not have the ability to function as designed, resulting in emergency overflow and therefore unregulated releases of stormwater on to the slope and into the wetlands. This will erode the slope and damage remaining trees, exacerbating the erosion cycle and causing sedimentation into the wetlands and perennial watercourse. This will also alter the hydrology of the existing watercourse and wetlands by creating a more erratic and flashy pattern of hydrology relative to the existing wetland and watercourse hydrology, altering base flow to the watercourse which requires a more stable source of water to maintain existing function. The sum result of these

effects will be a negative impact to the wetlands and watercourse by making the resources significantly less habitable for the aquatic and vegetative life that currently resides within it.

It should be noted that the perennial watercourse is already prone to erosion downstream, as documented by the Town Engineer and others. Therefore even a minor additional amount of altered flow and sedimentation from the project will, by definition, cumulatively accelerate this erosion and significantly impact the system downstream.

5. Snow Removal and its Impacts

It is reasonable to expect that post-construction, in the interest of public safety, the roadways and parking areas will need to be plowed after snow events. However, there is no space formally designated within the development for snow storage. The only space logically available for this use is the unpaved area located east of the parking area. This area is the only remaining greenspace on the site and functions as the wooded protective buffer to the wetlands and perennial watercourse. Assuming this area is used for storage (as it logically has to be considering there is no other area physically available), then there will be several wetland impacts as a consequence.

The melting of the snow will exacerbate the hydrologic problems and impacts discussed in above section 4 regarding the raising of the groundwater levels. Furthermore, the volume of runoff generated during the melt off of the snow storage piles will be significant, and would be expected to accelerate erosion and sedimentation of the wooded buffer and the downstream environment.

Plowed driveway snow is also a chemical contaminant. Snow is a nonpoint source of pollution since it accumulates a variety of contaminants from the atmosphere, motor vehicles, driveways, and roadways. These contaminants include salts and salt additives, heavy metals, petroleum products such as oil and grease nutrients, bacteria, asbestos from brakes, organic chemicals such as pesticides and PCBs. These contaminates all have the ability to mobilize and will be transported into the wetland and perennial watercourse system as a result of the melt off from the snow during storage. These contaminants are toxic to wetland vegetation and aquatic life, on site and downstream.

In addition, plowed driveway snow contains solid materials such as sand and other soil particles. These physical particles act as contaminants by filling in wetlands and watercourses after melt off from the snow during storage, eliminating habitat and impairing aquatic life on site, and downstream.

Roadway salts contained within the snow are particularly toxic to plant life on site and downstream. The salinity from the snow melt radically alters soil pH, dries out the soil and

inflicts moisture stress to trees and other vegetation. The salinity is specifically toxic to the biochemical metabolism of most of the herbaceous and woody plants and trees located on site, and downstream.

It is reasonable to expect that most of the trees located down slope of the anticipated storage areas will be significantly adversely impacted by the concentration of salts in the snow melt. Trees, when exposed to salts, weaken and eventually die due to the stress. The demise of the woody canopy will further decrease the value of the wooded buffer and degrade the ability of the wooded buffer to perform its functions relative to the wetland and watercourse area. Functions expected to be degraded include erosion prevention, protective screening, source of woody debris, thermal regulation, water quality and quantity remediation, and wild habitat. Cumulatively, these impacts will degrade the existing functions and values of the wetland and perennial watercourse that were documented by Rema Ecological Services, Environmental Planning Services and others.

Road salt also has a toxic effect in the wetland and aquatic environment. This occurs even at fairly low levels and during the winter season (see for example the USGS research by Corsi et al 2010). Alternatives to salt such as organic de-icers have substantial toxic aquatic effects as well (see above research) to wetland and watercourse vegetation and aquatic life.

It is conceivable that future property managers have the ability to potentially restrict the use of salts within their own driveway and parking areas. However, even if salt usage is limited by the future property managers for their site, it is reasonable to expect that motor vehicles will still track in significant levels of salt from outside roadway sources. Furthermore, it is reasonably doubtful that any property manager will want to, or be able to, restrict the usage of salts (or alternative deicing products) for the pedestrian areas, and as a result it is expected that these products will still be transported into the natural areas through the mechanisms detailed above.

In addition to these pollutant effects, large snow piles also physically and lethally compress the woody understory, impairing the ability of the woody buffer to provide the documented functions detailed in the above paragraphs to the adjacent wetlands and watercourse.

6. Communal Open Space and Facility Maintenance

There are no designated spaces within the site plan for even a minimal amount of outdoor communal usage, or for the staging reasonably expected to be necessary to maintain the building and grounds of a 37 unit apartment complex. This is not realistic considering that there will be a building, associated grounds, and a population to serve.

The close proximity of the development envelope to the thin wetland buffer and wetland resources will create a situation that will invite future intrusion into these remaining areas. In my experience as an environmental planner and permit compliance specialist in both municipal and private settings, I have reviewed similar projects which lack minimal all-purpose common space and inevitably this lack of utilitarian greenspace leads people to create it on their own, post-development, regardless.

Designing a site plan configuration without any type of open space area for people to utilize (e.g. for meals/picnics and/or for general gathering) is unrealistic given the needs of the population which tends to require such areas, and as a consequence leads to incremental but cumulatively permanent landscape modification and encroachment into the natural areas post-development. People expect at least a small amount of lawn near their dwelling areas, and if it is not created for them, it tends to be created incrementally within the wooded areas anyhow.

The close proximity of the development envelope to the remaining natural areas on the site will also necessitate that typical facility maintenance activities that are reasonably expected for a residential apartment complex of that scale, such as ground maintenance, leaf collection, snow deposition (discussed above), and normal building maintenance will come into direct contact with the remaining forested areas and wetlands.

The post-development activities cited above will diminish the long term productivity of the wetland and watercourse area over time, a concern for the Wetland Agency under Section 10.2c of the Regulations. As such, *it is recommended that the site plan be radically reconfigured so that such utilitarian spaces are formally designated, along with a larger, more realistic separation distance between any limits of landscaping and the natural areas*. This is required to discourage, and therefore prevent intrusion.

It is also recommended, given the quality of the wetland resources on site and downstream, ***that such a separation distance be 80-100 feet minimally,*** as per the earlier discussion in section 2 of this report.

In summary, planned communal and otherwise utilitarian open space areas should be incorporated into the site plan design so that they are not inevitably developed on their own in an unregulated, haphazard, and detrimental fashion.

7. Violating the Terms of the Conservation Easement

Condition #3 of the Conservation Easement filed with the Town in 2004 states:

> "That the topography of the landscape shall be maintained in its present condition and that no topographic changes shall be made. Topographic changes include, without exclusion, filling excavating, removal of top soil, sand gravel rocks, or minerals, building roads, or altering natural or existing watercourses or drainage;"

The detention basin is proposed to discharge directly into the Conservation Easement area. This will alter existing drainage patterns and violate the terms of the easement.

8. Conclusion

Based upon the above observations, analysis and reviews, it is my opinion that the application, as it is currently proposed, will have a reasonable likelihood of unreasonably impairing the natural resources, wetlands, and watercourses of the State of Connecticut.

Literature Cited:

Brooks, K.N., P.F. Ffoliott, H.M. Gregerson, and L.F. Debano. 2003. *Hydrology and the Management of Watersheds, Third Edition*. Blackwell Publishing.

Corsi, S.R., D.V. Graczyk, S.W. Geiss, N.L. Booth, and K.D. Richards. 2010. A fresh look at road salt: Aquatic toxicity and water-quality impacts on local, regional and national scales. *Environmental Science and Technology*. 44(19) pp 7376-7382.

Lu, J., S.G. McNulty, and D.V. Amatya. 2003. Modeling actual evapotranspiration from forested watersheds across the southeastern United States. *Journal of the American Water Resources Association*. August. pp 887-895.

Respectfully submitted,

Signed,

Steven Danzer Ph.D.

Certified Professional
Soil Scientist

ATTACHMENTS

1) Professional Qualifications – Steven Danzer PhD
2) Letter of Approval dated February 28, 2003
3) Special Meeting Minutes – February 26, 2003

STEVEN DANZER, PHD & ASSOCIATES LLC
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WETLAND BOUNDARIES › POND & LAKE MANAGEMENT › CONSTRUCTION FEASIBILITY CONSULTATIONS › ENVIRONMENTAL STUDIES

Steven J. Danzer, Ph.D.

Certifications:

Professional Wetland Scientist (PWS # 1321) - Society of Wetland Scientists.
Soil Scientist
- Nationally certified: Soil Science Society of America (CPSS # 353463)
- Regionally registered: Society of Soil Scientists of Southern New England

Certified Professional in Erosion and Sediment Control (CPESC #2397)
- The Soil and Water Conservation Society.

Municipal Wetland Agent - CT DEEP.
CT Licensed Arborist (S-5639) – CT DEEP.

Education:

Ph.D. Renewable Natural Resource Studies, dual minor in Soil Science and Geosciences - from University of Arizona, 1996
PhD focus: riparian (streamside) hydrology and ecology
M.A. Sociology, University of Arizona, 1989
B.S. Animal Sciences, Cornell University, 1987

Professional experience:

Steven Danzer PhD & Associates LLC 9/00 – present.

Environmental impact analysis, wetland delineation, coastal area management, expert testimony, wetland functions and values assessment, mitigation review, municipal and peer review, independent site monitoring, Open space management plans, arboricultural consulting.

- Private clients throughout Connecticut and Westchester County, NY
- Municipal clients include Greenwich, Stratford, Danbury, Westport, Newtown, and Hamden.
- Non-profit clients include Ash Creek Conservation Association, Stamford Land Trust, Philip Johnson Glass House – National Trust for Historic Preservation.

Environmental Planner: Town of Stratford CT, Inland Wetlands and Watercourses Commission: 12/00- 3/06.

Environmental Analyst: Town of Greenwich CT, Conservation Commission and the Inland Wetlands and Watercourses Agency: 2/98 – 7/00.

Affiliations:

Board of Directors: CT Association of Conservation and Inland Wetland Commissions (CACIWC) 2007-2009
Board of Directors and Chief Land Steward: Stamford Land Conservation Trust.
Member:CT Association of Wetland Scientists, Society of Ecological Restoration, North American Lake Management Society, Society of Soil Scientists of Southern New England, International Society of Arboriculture.

File

TOWN OF STRATFORD

CONNECTICUT
06497

INLAND WETLANDS COMMISSION
2725 MAIN STREET
STRATFORD, CT 06497
(203) 385-4006

February 28, 2003

Nick Owen – Millenium Developers
3333 Main St
Stratford, CT 06614

RE: Letter of Approval, 480 James Farm Road

Dear Mr. Owen:

This is to notify you that the Stratford Inland Wetlands and Watercourses Commission at their special meeting on February 26, 2003 has voted to conditionally approve your Inland Wetlands application for a 2 lot subdivision at 480 James Farm Road.

The following are a set of conditions that need to be satisfied before a Permit can be issued. Please note that if these conditions are not satisfied by February 26, 2005, the approval will be void and no permit will be issued. Please forward all relevant documentation to the Conservation Office for review.

1. The site plan be amended to include
   a) silt fence
   b) limits of clearing at 100 foot offset from the wetland line
   c) conservation easement line at 50 foot offset from the wetland line

2. Conservation Easement be filed on the Land Records. Receipts should be provided, to include volume and page. The easement shall include:
   a) Deed restriction language, which include a ban on vegetative clearing and a ban on erecting, constructing, or installing structures within the easement.
   b) Legal description of easement

c) Map of the lot (to survey standards) with the easement area demarcated.

3. Permanent survey monuments (concrete or otherwise) to be erected along Conservation easement line along all vertices and every 40 feet. Conservation Plaques every 40 feet as directed by staff.

4. Performance bond of $4500.00 to cover site work, mitigation, utilities, and site stabilization.

If you have any questions, please contact me at 700 Peters Lane, Stratford, CT 06614 or phone #385-4006.

Sincerely,

Steven Danzer PhD
Inland Wetland Agent

Cc Gary Lorentson, Planning Administrator
Barry Hammons, Agent for the Applicant

TOWN OF STRATFORD
INLAND WETLANDS & WATERCOURSES COMMISSION

SPECIAL MEETING MINUTES

The Stratford Inland Wetlands & Watercourses Commission conducted a special meeting on Wednesday, February 26, 2003, at 7:30 p.m., in the Baldwin Center, 1000 West Broad St., Stratford CT, pursuant to notice duly given and posted.

Call to Order: The meeting was called to order at 7:35 p.m.
Presiding: George Katinger, Chairman
Members In Attendance: M. Hartley Moore, P. Nelsen, R. Hojdich
Members Absent: R. Harrison, J. Vail
Others in Attendance: Dr. S. Danzer, W. McCann, Atty. Brian Stone

1. Tabled Items:
   a) Application 2002-21: Gregory Jon Volpe, Lot 9, Forest Rd., Single Family Dwelling. Motion by R. Hojdich to take this matter off the table, seconded by P. Nelsen and passed unanimously. Appearing this evening on behalf of the applicant is Matthew Scully of Riordan Surveying, Woodbury, CT, who presented the revised plan for the proposed dwelling which will be constructed outside the regulated area on a 1.36 acre lot, with a proposed conservation easement over 65% of the property. Discussion regarding the following: (i) reduction in front yard setback from 50' to 31'; (ii) dwelling will be 10' closer to street; (iii) storm water drainage; (iv) surface runoff will run to back side of lot to swale; (v) septic system has been reviewed by Health Dept.; (vi) structural approach for conservation easement should be a rock or stone wall; (vii) minimum amount of material to be removed with stock pile area denoted on plans, and no clear cutting east of conservation easement; (viii) construction sequence plan to be established to include silt fencing, erosion control plan and on-site monitoring. Staff presented recommended permit conditions #1 through #6 which were reviewed and discussed. #4: performance bond to be adjusted to include blasting; #3: recommends sunken boulders or a line of rocks along conservation easement line to deter lawn mower and/or tractor access. Suggestion for swale along property line to direct runoff to drain toward wetlands.

Chairman Katinger recognized James Connelly of 225 Forest Road, who expressed his concerns with this application regarding impacts to wetlands, water table, runoff, flooding to adjoining properties, storm water drainage, ground water levels. Also recognized was Eileen Lawton of Forest Road, who lives downslope from Lot 9 and expressed her concerns regarding runoff from drainage and displacement of water from this lot to her property.

Staff and commissioners made the following recommendations for the proposed plan to construct a dwelling on this lot: (a) document conservation easement with stone wall; (b) re-grade driveway swale line; (c) denote stock pile area; (d) erosion control plan with silt fence detail and sequencing; (e) accurate assessment on quantity of ledge removal (yardage) with detail on plan of location for ledge work.

Motion by M. Hartley Moore to table this matter to the next meeting, seconded by R. Hojdich and passed unanimously.

b) Application 2003-01: Barry Hammons, PE LS for Nick Owen, Millennium Developers, 480 James Farm Rd., 2-lot subdivision. Motion by M. Hartley Moore to take this matter off the table, seconded by P. Nelsen and passed unanimously. Appearing this evening is applicant Nick Owen who responded to request from IWWC for feedback on conservation easement. He feels it is not detrimental to the project and would consider a 25' setback from the property line with stipulation on the remaining portion of the 100' setback that it be used for normal yard/lawn, and any other use would be subject to application for a special permit.

Staff would offer a 50' conservation easement and require demarcation at limit of clearing, and that it be kept clear at area of septic system. Staff presented recommended permit conditions #1 - #6 which were acceptable to the applicant.

Motion by R. Hojdich to approve Application 2003-01 with 50' conservation easement as recommended by staff as well as permit conditions #1-#6 as presented, seconded by P. Nelsen and passed unanimously.

c) Modification of Permit 2001-18: Harborside Associates, LLC, 946 Ferry Boulevard. Motion by P. Nelsen to take this matter off the table, seconded by R. Hojdich and passed unanimously. Appearing this evening on behalf of the applicant are John Lust (Independent Consultant) and John Roberge (Professional Engineer), who are requesting a modification of the existing slope treatment from stone rip rap to a vegetative stabilization with 2 drainage channels that will include a stilling basin, oversized channels (3 times bigger), and development of a recommended maintenance program. Area will be identified with stakes. Request for consideration on existing bond being applied toward new bond as recommended by staff; after some discussion it was agreed that this will be worked out between the parties as it is basically an accounting matter. Staff presented recommended permit condition #1 for submission by applicant of an Operations & Maintenance Plan for review.

Motion by M. Hartley Moore to approve Modification of Permit 2001-18 as presented with stipulations as discussed and modifications presented by staff, seconded by R. Hojdich and passed unanimously.

2. New Business:

a) Modification of Application 99-012: Mountain Development Corporation-Merritt 8, for construction of parking lot and detention basin. Staff presented comments dated 2/18/03 regarding status of approval from 1/19/00 with outstanding issues and new concerns #1-#5. Applicant is re-appearing for modification of application to construct a parking lot and detention basin as a phase I project. Appearing this evening on behalf of the applicant is Attorney Barry Knott of Stratford, CT, who gave a brief overview of the previous application for a 110,000 s.f. office building to the rear of an existing building at 99 Hawley Lane. Attorney Knott presented and distributed copies of exhibits 1-4, which he reviewed. He noted that the "permit" with articled stipulations was never issued subsequent to approval by the IWWC, and is of the opinion that the time did not start to run due to this fact. All of the stipulations have been complied with by the applicant other than what cannot be complied with until construction begins. Langan Engineering will replace Kasper Associates. There is a time constraint on this project due to tenant being ready to move in with 125 employees and cannot do so until the parking lot is completed. He also noted that a construction sequence manual can be submitted within 7 days of this meeting. Zoning approvals have been extended to 2004. The Phase II building construction can be accomplished even if the parking lot is in use (traffic circle as noted in Phase II).

Staff presented comments dated 2/18/03, which included status of approval, outstanding issues and new concerns. John Cote of Langan Engineering noted that rock removal (disturbance) would be kept at a minimum based on proposed plan. Any other site considered would result in disturbance from blasting. Drainage system was taken into consideration and would be most effective at proposed location for parking lot. Access to construction site of new building would be separate from proposed parking lot site.

Discussion followed regarding:

- Long term development plan for prospective tenant 15 months from now
- Has the applicant paid the annual fees to date to IWWC?
- Relocation of proposed parking lot so that it is further away from the "kettle"
- To consider: do we accept the application as a modification or should it be a new application based on change in parking lot entryway?
- 2 outstanding conditions for approval: posting of construction bond, and hiring of blasting manager
- Per town attorney: modification can also go again to a public hearing based on the proposed modifications
- New plans submitted to staff for Phase I-Parking Lot to include grades, utilities, soil & erosion controls, construction plan with phasing, limits of disturbance, plan for storage of materials

Motion by P. Nelsen to accept as a Modification to previously approved Application 99-012, with additional modifications as recommended and discussed to be presented at next month's IWWC meeting; seconded by R. Hojdich and passed by a vote of 3-1.

3. Old Business: none at this time.

4. Staff Report: (a) prospective commissioner for consideration (Ron Porto)-to be further discussed at next month's meeting; (b) W. McCann reported that he issued an administrative permit to the State of CT for demolition of a structure at 440 Tavern Rock Rd. for road straightening project.

5. Commissioners' Forum: Motion by R. Hojdich to go into executive session to discuss AvalonBay pending litigation with Attorney Brian Stone, seconded by M. Hartley Moore and passed unanimously. (Executive session ended at 10:29 p.m.)

6. Adjournment: There being no further business to discuss, the meeting adjourned at 10:30 p.m. on a motion by M. Hartley Moore and seconded by R. Hojdich.

Respectfully submitted,

Debbie Gallo

Debbie Gallo, Recording Secretary