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March 8, 2007

CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS ON THE ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME :Gates Road
PROJECT MUNICIPALITY :Princeton
PROJECT WATERSHED :Nashua
EOEA NUMBER :13921R
PROJECT PROPONENT :Fox Hill Builders, Inc.
DATE NOTICED IN MONITOR :February 6, 2007

Pursuant to the Massachusetts Environmental Policy Act (G. L. c. 30, ss. 61-62H) and Section 11.03 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project **requires** the preparation of an Environmental Impact Report (EIR). As described in more detail in this Certificate, after examining the record before me, I find that there is an inadequate amount of information on alternatives, impacts, and mitigation to meet that standard supporting a finding of adequacy for the ENF submitted for this project. The review of the ENF has left unanswered many questions raised by the comment letters received regarding the proponent's proposed stormwater management plan and the project's potential impacts to Outstanding Resource Waters (ORWs), conversion of approximately 15 acres of prime agricultural soils, and impacts to endangered species habitat.

The proposed project involves the construction of a 36-lot residential subdivision on a 168-acre parcel of property located on Gates Road and Old Colony Road in Princeton. The residential subdivision project will include approximately 3,100 linear feet (lf) of access drive and internal roadway with sidewalks, and related utilities and stormwater management infrastructure.

The proponent has located two separate site drives on Gates Road and on Old Colony Road to serve the proposed Gates Road project. The project's estimated water supply demand (15,840 gpd) and wastewater flows (15,840 gpd) will be served by individual private on-site water supply wells, and a private on-site package wastewater treatment facility in accordance with Massachusetts Title 5 regulations, respectively. As described in the ENF, the project is being proposed under the Town of Princeton's Open Space Development Plan zoning bylaw. According to the proponent, the development restrictions posed by the presence of rare species habitat, wetland resource areas and the Open Space Bylaw prevent additional development within the project site. As a result, approximately 70 acres (approximately 42%) of the project site will remain as permanent open space.

The project is undergoing review pursuant to Sections 11.03 (1)(b)(1) and (2)(b)(2) of the MEPA regulations, because the project will result in the direct alteration of 25 or more acres (37 acres total) of land area, and result in the taking of an endangered species. The project may require a Groundwater Discharge Permit and a Water Quality Certificate from the Department of Environmental Protection (MassDEP). The project will also require Orders of Conditions from the Princeton Conservation Commission (and hence Superseding Order(s) from MassDEP if any local Orders were appealed). The project may also require a 401 Water Quality Certification from MassDEP. The project must comply with the National Pollutant Discharge Elimination System (NPDES) General Permit for stormwater discharges from a construction site of over one acre. The proponent is required to file the NPDES Stormwater General Permit Notice of Intent, including the SWPPP, with DEP for an Approval of Construction or Industrial General Permits that Discharge to Outstanding Resource Waters (ORWs) (BRP WM09). I encourage the proponent to continue to identify additional opportunities to further reduce the project's proposed land alteration. The proponent is not seeking financial assistance from the Commonwealth for the project. MEPA jurisdiction therefore extends to those aspects of the project that are within the subject matter of required or potentially required state permits and that have the potential to produce significant Damage to the Environment. In this case, MEPA jurisdiction extends to issues of land alteration, rare species, stormwater, and agricultural land.

I note that the Town of Princeton's existing zoning for the project site requires a minimum 2-acre lot size. As described in the ENF, the proposed project will involve the construction of 36 individual building lots with corresponding on-site water supply wells and Title 5 waste water treatment systems, approximately 3,500 lf of internal roadway with sidewalks, and stormwater management best management practices (BMPs). Although not described in the ENF document, the proponent has also proposed to undertake the on-site excavation of suitable sand and gravel material from the southwest portion (approximately 15 acres) of the project site to be used for the construction of individual house lots and corresponding Title 5 wastewater treatment systems.

When considering the potential impacts to land alteration associated with the construction of the 36 house lots, stormwater management BMPs, and the gravel mining operations, it appears that the project will result in the alteration of 50 or more acres of land area and will require the preparation of an Environmental Impact Report (EIR) pursuant to Section 11.03 (1)(a)(1). Pursuant to Section 11.06 (7) of the MEPA regulations, I am hereby requiring the proponent to file a DEIR to assist the permitting agencies and interested parties in their evaluation of the potential environmental and regulatory impacts of this project and to address a number of outstanding issues related to the project's potential impacts to coastal wetland resource areas and adjacent properties and land uses.

SCOPE

General

The DEIR should follow the general guidance for outline and content contained in section 11.07 of the MEPA regulations, as modified by this Certificate. It should address the comments listed at the end of this Certificate to the extent that they are within this scope, and it should include a copy of this Certificate. The proponent should circulate the DEIR to those parties who commented on the EENF, to any state agencies from which the proponent will seek permits or approvals, and to any parties specified in section 11.16 of the MEPA regulations. In addition, the proponent should make a reasonable number of copies of the DEIR available on a first come, first served basis.

Project Description and Permitting

The DEIR should include a thorough description of the project. The DEIR should also include a brief description of each state permit or agency action required or potentially required for the project, and should demonstrate that the project meets applicable performance standards. In particular, the DEIR should include details on how the project meets the performance standards of the Wetlands Protection Act and the Watershed Protection Act, including standards related to extent of alteration of wetlands and impacts to rare species habitat, impacts to ORWs, respectively.

Alternatives

The purpose of the alternatives analysis is to provide examples of different levels of development and different site configurations that can guide future planning and development of the site in a manner that avoids and minimizes environmental impacts to the maximum extent feasible. The DEIR should include an evaluation of alternatives to ensure that the proposed project will avoid, minimize and mitigate environmental impacts to the maximum extent feasible.

The alternative analysis should include the no-build alternative to establish baseline conditions that can be used to evaluate potential impacts of the proposed project

and other alternatives, and to develop appropriate mitigation. The alternative analysis should evaluate alternative site layouts, including a clustered residential alternative, and a reduced scale development to minimize environmental impacts. Alternative layouts that reduce impacts to adjacent residential areas should be considered. The DEIR should provide a rationale for the selection of the preferred alternative and the elimination of other project alternatives from further consideration. The DEIR should also include any alternative analyses necessary pursuant to applicable state and local permitting process. Specifically, the EIR should include an alternatives analysis to evaluate methods of avoiding or minimizing impacts on rare species and fully explain any permitting implications under the Massachusetts Endangered Species Act.

I encourage the proponent to evaluate sustainable design alternatives such as Low Impact Development (LID) techniques in site design and stormwater management plans. LID techniques incorporate stormwater best management practices (BMPs) and can reduce impacts to land and water resources by conserving natural systems and hydrologic functions. The primary tools of LID are landscaping features and naturally vegetated areas, which encourage detention, infiltration and filtration of stormwater on-site. Other tools include water conservation and use of pervious surfaces. Clustering of buildings is an example of how LID can preserve open space and minimize land disturbance. LID can also protect natural resources by incorporating wetlands, stream buffers and mature forests as project design features. For more information on LID, visit <http://www.mass.gov/envir/lid/>. Other LID resources include the national LID manual (Low Impact Development Design Strategies: An Integrated Design Approach), which can be found on the EPA website at: <http://www.epa.gov/owow/nps/lid/>.

Land Alteration

For each alternative, the DEIR should quantify the amount of land altered and current use, the amount of earthwork involved in meeting final grades, and the amount of impervious surfaces created. The DEIR should investigate all feasible methods of avoiding, reducing, or minimizing impacts to land.

Gravel Mining Activities

According to the comments made by the proponent at the MEPA consultation session held for this project, the proponent's proposed project design also includes the on-site excavation of suitable sand and gravel material from the southwest portion of the proposed 70-acre protected Open Space area to be used for the construction of individual house lots and Title 5 systems. The DEIR should include a reasonably scaled map that delineates the limits of the proposed gravel mining area, including the proposed mining area access road. The DEIR should include a detailed description of the proposed mining activities, including a closure plan for the mining site as part of the completion of residential subdivision project.

Open Space

As noted in the ENF, a 70-acre portion of the project site will be maintained as

permanently protected open space. The DEIR should include a map that delineates which areas of the site are proposed to permanently remain as undeveloped open space following project completion, and it should disaggregate landscaped open space and undisturbed open space. I encourage the proponents to consider placing remaining undisturbed open space located within each residential development parcel under a Conservation Restriction (CR) to ensure for their permanent protection.

Wetlands

The DEIR should include a reasonably scaled map that delineates wetland boundaries and buffer zones on the site, and should include the appropriate overlays of each site layout described in the alternatives analysis. The plans should also note any applicable local buffer zone requirements. The DEIR should explain the significance of each wetland area on the site to the interests enumerated in the Wetlands Protection Act. The proponent should certify that all streams identified on the Gates Road project site meet the Massachusetts definition for an intermittent or perennial stream, and the DEIR should evaluate potential impacts on these resource areas. The DEIR should quantify the amount of direct wetland alterations proposed including removal of tree and shrub canopy from forested wetlands. The DEIR should discuss whether any proposed over-story clearing is permissible under the Wetlands Protection Act. For each alternative, the DEIR should also analyze indirect impacts to wetlands from receipt of drainage and stormwater runoff from the site. Proposed activities, including construction mitigation, erosion and sedimentation control, phased construction, flood control, and drainage discharges or overland flow into wetland areas, should be also be evaluated.

As depicted in the project site plans provided in the ENF submittal, a number of residential buildings are located partially or wholly within the 100-foot wetland buffer zone. I strongly encourage the proponent to consider placing deed restrictions, to include BVW and certified vernal pools, if any, and the uplands around them, on any residential properties that will be located within 600 feet of any vernal pools or within the 100-foot wetlands buffer zone as a method for avoiding future impacts from homeowner activities.

The DEIR should contain sufficient information to determine whether all proposed wetland alterations are permissible under the Wetlands Protection Act (i.e., whether the project would require a variance). The DEIR should include a detailed discussion on how the project meets the performance standards of the Wetlands Protection Act, including standards related to extent of alteration of wetlands. The Commonwealth has endorsed a "No Net Loss Policy" that requires that all feasible means to avoid and reduce the extent of wetland alteration be considered and implemented. The DEIR should examine alternatives that avoid impacts to wetland resource areas, their associated buffer zones, riverfront protection areas and 100-year flood plain areas. The DEIR should provide a detailed description of the proponent's proposed wetlands mitigation plan.

The DEIR should identify the locations of the proposed wetland replication areas for each residential development. For any amount of required wetlands replication, a detailed wetlands replication plan should be provided in the DEIR which, at a minimum,

includes: replication location(s) delineated on plans, elevations, typical cross sections, test pits or soil boring logs, groundwater elevations, the hydrology of areas to be altered and replicated, list of wetlands plant species of areas to be altered and the proposed wetland replication species, planned construction sequence, and a discussion of the required performance standards and monitoring. The DEIR should respond to MassDEP's comments regarding the use of wetland replication areas as a part of the project's proposed stormwater management system.

Stormwater

The proposed project site is located within the Ware Watershed and Wachusett Reservoir Watershed in Princeton. According to the comments received from the Department of Conservation and Recreation (DCR), because the project's stormwater flows discharge to Outstanding Resource Waters (ORW), the project is subject to review by the DCR's Division of Water Supply Protection (DWSP) pursuant to the Watershed Protection Act (350 CMR 11.04). The proponent must consult with the Massachusetts Division of Watershed Management for a determination of the wetlands and waterways located within and adjacent to the project site and their classification as Outstanding Resource Waters (ORW), and the project's permitability under the Watershed Protection Act. The DEIR should discuss the consistency of the stormwater management plan with DEP guidelines, and should include at least a conceptual schematic drainage plan.

The DEIR should present drainage calculations and plans for the management of stormwater from the roadway component of the project and include an overall drainage plan for the project. It should include a detailed description of the project's proposed drainage system design, including a discussion of the alternatives considered along with their impacts. The DEIR should identify the quantity and quality of flows. The rates of stormwater runoff should be analyzed for the 10, 25, and 100-year storm events. The proposed drainage system should control storm flows at existing levels.

If the proponent ties into an existing municipal drainage system, the DEIR should identify the permits required and if there will be a recharge deficit on-site. The DEIR should describe where the municipal drainage system discharges. The proponent should discuss the consistency of the proposed stormwater management plan with the DEP Stormwater Management Policy. The DEIR should address the comments received pertaining to the project's impacts to wetlands, and ORWs. The proponent should provide calculations, proposed best management practice (BMP) plans, and supporting information sufficient to demonstrate that the design of the project's drainage system can accommodate stormwater water flows during severe storm events without impacting adjacent ORW resources.

The DEIR must discuss the consistency of the proponent's stormwater management plan with best management practices (BMPs) approved for critical areas. In addition, a maintenance program for the drainage system will be needed to ensure its effectiveness. This maintenance program should outline the actual maintenance operations, responsible parties and back-up systems. The DEIR should investigate

feasible methods of reducing impervious surfaces.

Rare Species

As described in the ENF, the project site is located within priority and estimated habitat for the American Bittern (*Botaurus lentiginosus*) and the Blanding's Turtle (*Emydoidea blandingii*). In their comments, the Natural Heritage and Endangered Species Program (NHESP) indicated that the project may result in a "take" of the Blanding's Turtle. As noted above, the proponent has committed to placing a Conservation Restriction (CR) on approximately 9.5 acres (76%) of the project site for the permanent protection of the Blanding's Turtle habitat. According to NHESP, the proponent has continued to work closely with NHESP and has developed a final project design that will meet the requisite performance standards to support a Conservation and Management Permit pursuant to the Massachusetts Endangered Species Act (MESA) and MESA Regulations (321 CMR 10.04(3)(b)). The proponent should forward a copy of the proponent's proposed rare species impact minimization and mitigation plan, including a copy of the proponent's executed and recorded CR, proposed deed restriction documentation, and final project site plan identifying the designated conservation areas and development areas to the MEPA Office for the project file.

Water

The project's water supply needs (approximately 15,840 gallons per day (gpd)) will be provided via individual privately owned water supply wells to be located in within each of the proposed development lots. The proponent will need to work closely with the local Board of Health and Conservation Commission to determine the suitability of the project site's hydrogeology and groundwater resources to accommodate the project's water supply needs. I expect that the local review and permitting process will require the proponent to demonstrate that the proposed project and drawdown of the water table associated with the project's proposed water withdrawals, will not adversely impact the site's surface and subsurface hydrology, wetlands resource areas.

Wastewater

According to the information contained in the ENF, the proponent has proposed to locate individual privately owned subsurface Title 5 systems within each of the development lots to serve the project's wastewater flows (15,840 gpd), in accordance with Massachusetts Title 5 regulations.

Agricultural Land

Agricultural land in Massachusetts is a finite natural resource that is threatened by competing land use pressure. I note that conversion to non-agricultural uses, or loss of the existing agricultural lands, including state important and USDA prime soils that may be located within the proposed project area may be subject to the mitigation requirements of Executive Order 193. According to the information contained in the ENF submittal and comments received during the MEPA consultation held for this project, the proposed

project will result in the conversion of approximately 14 acres of prime farmland classified as Peru fine sandy loam 8-15% slope, and Marlow fine sandy loam 8-15% slope, located along the eastern half of the project site abutting Gates Road. This farmland has been utilized as active hay fields within the last 5 years. The DEIR should discuss the project's consistency with the requirements of Executive Order 193, and propose an appropriate mitigation plan for unavoidable impacts to agricultural land including; 1) a financial contribution (\$10,000. for each agricultural acre being converted) made to the Commonwealth's APR Program, municipality or non-profit conservation organization, or 2) on-site mitigation involving the granting of an Agricultural Preservation Restriction (APR) to the Commonwealth for equivalent agricultural lands.

Historic/Archaeological Resources

Many comments have been received for this project describing the historic and cultural significance of the Four Corners area of Princeton in which this project site is located. According to the Princeton Historic Commission, the Four Corners Preservation Society and others, the Town of Princeton is currently awaiting a determination from the Massachusetts Historical Commission (MHC) regarding the listing of the Agricultural landscape of the Bentley Trust lands (the Four Corners area) in the Massachusetts Inventory of significant cultural resources, and on the National Register of Historic Places. I encourage the proponent to consult with the Massachusetts Historical Commission (MHC) in further developing its design and construction plans for the proposed project to avoid, minimize and mitigate the project's potential impacts to the historic setting of the Four Corners area of Princeton, and any remaining historic agricultural fields and buildings located within the project area. The proponent should also consult with the Princeton Historic Commission to ensure that the proposed development complies with local historic preservation and demolition delay bylaws. The EIR should include a detailed response to comments received from the Princeton Historic Commission and the Four Corners Preservation Society.

Construction

The DEIR should analyze construction-period impacts, including temporary impacts to wetlands, and the extent of any blasting and/or re-grading during construction.

The proponent is required to prepare a Stormwater Pollution Prevention Plan (SWPPP), which must clearly and reasonably delineate all areas to be 'altered', and describe the practices that will be implemented to protect the resources during construction as well as upon completion of the project. This includes Erosion and Sedimentation Control Plans and design calculations to assess all drainage leaving the site. The SWPPP must also include designation of areas where stockpiling of material and operations are to occur. The construction methods implemented at the project site will need to be conducted in such a manner as to protect the Commonwealth's Outstanding Resource Waters (ORWs) from discharges associated with the proposed increased impervious areas as well as impacts associated with the construction phase of the development. The proponent should consult with the Town of Princeton, and MassDEP and others to ensure

that the proponent will meet any performance standards associated with a federal NPDES permit for all proposed project construction activities.

Comments

The DEIR should respond to the comments received to the extent that the comments are within MEPA jurisdiction. I recommend that the proponent use either an indexed response to comments format, or else direct narrative response. The DEIR should present any additional narrative or quantitative analysis necessary to respond to the comments received.

Mitigation and Section 61

The EIR should contain a summary of all mitigation measures to which the proponent has committed, including a description of timing (by year or appropriate trigger point), estimated cost, and responsible party. The EIR should include Proposed Section 61 Findings for use by the state agencies.

Circulation

The DEIR should be circulated in compliance with Section 11.16 of the MEPA regulations and copies should also be sent to the list of "comments received" below and to Princeton officials. A copy of the DEIR should be made available for public review at the Princeton Public Library.

March 8, 2007

Date



Ian A. Bowles, Secretary

cc: Senator Harriette L. Chandler
Representative Lew Evangelidis

Comments Received: (continued on next page)

02/12/2007	Nathan Grigos
02/12/2007	Joanne Grigos
02/12/2007	Barry W. Van Dusen (2 letters)
02/12/2007	Division of Fisheries & Wildlife
02/13/2007	Edward Armstrong
02/13/2007	Lisa Van Dusen
02/15/2007	Montachusett Regional Planning Commission
02/16/2007	Peter Robert Weis
02/16/2007	John Goulet, PhD

02/20/2007 Neil Sulmasy, Timothy Kowalik / Four Corners Preservation Society (3)
 02/20/2007 Alexandra Fiandaca / Princeton Historical Commission
 02/20/2007 Karen Johnson
 02/20/2007 Stephen Stimson
 02/20/2007 Richard Galat
 02/20/2007 Charles & Barbara Gagas (2 letters)
 02/20/2007 John & Mary Goulet
 02/20/2007 David Leach & Audrey Klein-Leach
 02/20/2007 Dominic Golding Ph.D.
 02/20/2007 Anne Moore
 02/21/2007 Princeton Conservation Commission
 02/21/2007 Vivian Bisbee / Four Corners Preservation Society
 02/21/2007 Charles Stimson
 02/21/2007 Jennifer Hilton
 02/21/2007 Kim Houde
 02/21/2007 Janet MacDonald
 02/22/2007 Christopher Osgood / Four Corners Preservation Society
 02/22/2007 Alexandra Osgood / Four Corners Preservation Society (2 letters)
 02/22/2007 Paul and Martha Fortier
 02/22/2007 Kelly O'Connor
 02/22/2007 Isaiah Grigos
 02/23/2007 Tod Masterman (2 letters)
 02/23/2007 Elizabeth Masterman (2 letters)
 02/23/2007 Raymond Dennehy, Alan Sentkowski / Town of Princeton
 02/23/2007 Town of Princeton Planning Board
 02/23/2007 Craig Stimson
 02/23/2007 Dawn Desilets Sulmasy
 02/23/2007 David Klinch / ENSR
 02/23/2007 James Grigos
 02/24/2007 Emma Fortier
 02/24/2007 Jeffrey O. Richards / Princeton Open Space (3 letters)
 02/24/2007 Thomas F. Lynch
 02/25/2007 Douglas Williams (2 letters)

Comments Received (continued)

02/26/2007 Representative Lewis G. Evangelidis
 02/26/2007 Senator Harriette L. Chandler
 02/26/2007 Roger Leo / Princeton Land Trust
 02/26/2007 Leslie Wood
 02/26/2007 Gordon and Donna Brownell / WEST
 02/26/2007 Heidi Ricci / Mass Audubon
 02/26/2007 Wayne Petersen / Mass Audubon
 02/26/2007 Robert Ferm
 02/27/2007 Ann Walsh
 02/27/2007 Michele Roberts M.D., Ph.D.

02/28/2007 Janet Morrison / North County Land Trust
03/01/2007 Department of Conservation and Recreation
03/01/2007 Richard McCowan
03/01/2007 Barbara Hopson
03/05/2007 Peter Weis
03/05/2007 **Natural Heritage** and Endangered Species Program (NHESP)
03/06/2007 Dennis Rindone / Town of Princeton

IAB/NCZ/ncz

EOEA #13921R ENF