Municipality of Princeton
Department of Community Development
Office of Planning
Princeton Municipal Building
400 Witherspoon Street
Princeton, NJ 08540

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MEMORANDUM

TO: Linda McDermott, RMC
Municipal Clerk

FROM: Ilene Cutroneo, LUA
Assistant to the Planner

DATE: 3/11/13

SUBJECT: ORDINANCE REFERRAL:
Ordinance Creating a Green Development Information Statement/Checklist

At its regular meeting of March 7, 2013, Princeton Planning Board held a public meeting and discussed the aforementioned ordinance referral. Based on the discussion, the Board voted that proposed ordinance was consistent Princeton Master Plan with the following roll call vote:

FOR: Capozzoli, Crumiller, Miller, Nachamkin, Quinn, Reed, Trotman, Ullman, Gunning
AGAINST: No one
ABSTAIN: No one

AN ORDINANCE AMENDING "THE CODE OF THE TOWNSHIP OF PRINCETON, NEW JERSEY, 1968." AND AMENDING CHAPTER 17A OF THE CODE OF THE BOROUGH OF PRINCETON, NJ, 1974 CREATING A GREEN DEVELOPMENT INFORMATION STATEMENT / CHECKLIST

WHEREAS, the Princeton Master Plan's Conservation Element states sustainable building designs use our resources efficiently while providing for healthier building habitats and sustainable buildings are designed, constructed and operated in ways that reduce or eliminate any negative impact on the environment and occupants; and

WHEREAS, buildings which integrate materials and methods that promote environmental quality, economic vitality, and social benefit through the design, construction and operation of the built environment are a benefit to the Princeton community; and

WHEREAS, the Master Plan recommends that the municipality make every effort to incorporate sustainable building principles and practices into the design, construction and operation of the buildings; and

WHEREAS, the Master Plan recommends that the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) system be used as a design and measurement tool to determine what constitutes sustainable building principles and practices, and urges applicants to comply with these sustainable building principles; and

WHEREAS, it is the policy of the Princeton community to encourage developers to incorporate sustainable building practices at the beginning of the development process, submission of a "Green Development Information Statement" should be required as part of the major site plan and major subdivision process.

NOW, THEREFORE, BE IT ORDAINED by the Princeton Council:

Section 1.

Section 17A-162 Preliminary major subdivision checklist is amended to add the following as (j)
Section 17A-197 Major site plan checklist is amended to add the following as (l)
Section 10B-158 Preliminary major subdivision checklist is amended to add the following as (k)
Section 10B-230 Major site plan checklist is amended to add the following as (l)

Introduction

The Green Development Checklist and information statement outlines the contents for the Information Statement and is based on the LEED system standards for building and neighborhood development and Sustainable Jersey's Model Green Development Checklist, but is

not intended to be exclusive; incorporation of additional sustainable development practices in development projects is strongly encouraged to help Princeton become a more sustainable community.

Green Development Checklist and Information Statement - Contents

1. CONTEXT

a. **Site Selection**: Describe how the proposed development location avoids and/or reduces environmental impacts. Is the site located in an area with existing infrastructure, protecting greenfields, and preserving habitat and natural resources? Is the site a redevelopment, brownfield or infill location? How does this project integrate with existing neighborhood and streetscape?
b. **Alternative Transportation**: To what extent is the site served by public transit, pedestrian and bicycle networks? Is there train or bus service within 1/4 mile? How does the project encourage use of alternative transportation, including provision of covered bicycle storage and shower/changing facilities? Are roads within the development area design as "Complete Streets" (see Master Plan for definition of "Complete Streets").
c. **Parking Capacity and Design**: To what extent does the project reduce or eliminate new parking? Does the project utilize reduced parking ratios, compact stalls, banked parking, shared parking, van spaces, or priority parking for low emission vehicles?
d. **Land Use and Housing Diversity**: To what extent does the development provide or increase a mix of land use types? Does the development provide or increase housing diversity by type and income?
e. **Civic and Public Spaces**: Describe how the project provides or is in proximity to recreation facilities, parks, and green space areas.
f. **Recreation, Parks and Green space**: Describe how the project provides or is in proximity to recreation facilities, parks, and green space areas.
g. **Open Space/Natural Features**: Describe how the project maximizes open space and preserves natural features and landscapes. Is the development part of an integrated ecological network?
h. **Regional Stormwater Management**: Describe the streams or bodies of water to which the site drains, including any Category One waters. To what extent does the project provide or increase regional stormwater management?

2. SITE DEVELOPMENT

a. **Site Disturbance**: How does the project minimize site disturbance during construction, including demarcating disturbance areas, and properly locating project trailer, storage trailer(s), laydown area, vehicle access, etc.?
b. **Construction Activity Pollution Prevention**: Describe the erosion and sedimentation control plan to protect topsoil, and prevent waterway sedimentation and airborne dust generation. Describe how construction noise and/or vibration will be reduced or eliminated, including noise/vibrations from any rock or concrete crushing. Will any boulder fields be retained?

c. **Water Efficient Design**: Describe the ways in which the project will reduce or eliminate use of potable water or other water resources by using water efficient landscaping, efficient irrigation systems, using captured rainwater or using recycled wastewater.

d. **Resource-Efficient Design**: Describe the project's use of native species to reduce water use and to eliminate the need for fertilizers and pesticides, and to provide food/shelter for birds, animals and insects.

e. **Soil Compaction**: To what extent does the project include soil remediation measures to ensure full vegetative growth and rainwater infiltration after construction?

f. **Integrated Pest Management**: How will the project incorporate Integrated Pest Management techniques, such as alternatives to standard pesticides, herbicides and synthetic fertilizers that kill organisms in the soil?

g. **Tree Retention and Planting**: Describe how the project maximizes retention of large trees and wooded areas, and provides or enhances the municipal tree canopy, including shade trees and the street tree canopy.

h. **Low Impact Design**: Describe low impact site design features such a bio-swales, rain gardens, green roofs, green walls, pervious pavements, and onsite management of vegetative waste.

i. **Regenerative Design**: Describe how the site design restores and conserves soils, habitat, wetlands or water bodies. How does the site design address long-term conservation management of these resources?

j. **Non-plant Landscape Elements**: To what extent do non-plant landscape elements incorporate use of sustainable materials, including use of recycled content, local/regionally sourced materials, rapidly renewable materials and Forest Stewardship Council certified wood materials?

k. **Heat Island Effect**: In what ways does the project minimize heat island effects through reduced and/or light-colored paving, landscaping, or other site design methods? (See also C.8, Energy Efficient Roof Design, below.)

l. Site Lighting: How is light pollution from the site minimized? Describe what energy efficient site lighting and controls will be used.

3. GREEN BUILDING

a. **Green Building Certification**: Does the building meet the criteria for a certified green building? Will the project apply for LEED certification or other green building certification?

b. **Building Orientation**: Is the building oriented to maximize benefits of daylighting viewsheds and energy and to minimize detrimental impacts on surrounding sites?

c. **Water Efficiency**: Does the building provide a 20% or greater reduction beyond minimum water efficiency standards set by EPA or local government, whichever is greater? Will the project use the EPA WaterSense Water Budget tool, or similar water budget analysis?

d. **Water Conservation Features**: Describe the building's water conservation features, including low-flow fixtures, waterless urinals, and sensor-controlled faucets.

e. **Innovative Wastewater Technologies**: To what extent does the building incorporate rainwater, gray water and storm water recapture and re-use? Is wastewater treated on site and recharged to the ground?

f. **Energy Efficiency**: How does the building reduce energy usage through efficient heating and cooling, geothermal technology, enhanced daylighting, efficient lighting, occupant controls and an efficient building envelope? Will the project exceed the requirement of ASHRAE 90.1-2007? Will the project be benchmarking building efficiency savings with Energy Star's Portfolio Manager or similar program?

g. **Energy Star**: To what extent does the building incorporate energy Star - labeled building products?

h. **Energy Efficient Roof Design**: how will the proposed roof coloring, materials and design minimize heat island effects? Will the project meet Energy Star Cool Roof requirements?

i. **Renewable Energy**: Describe any on-site renewable energy self-supply to reduce environmental and economic impacts associated with fossil fuel energy use. What percentage of the project's electricity will come from renewable sources?

j. **Energy Efficient Impacts**: By what percent will the project exceed required energy efficiency standards, such as ASHRAE 90.1-2007? What are the anticipated energy savings and carbon emission reductions for the project:

k. **Refrigerant Management**: Describe how refrigerants and heating, ventilation, air conditioning and refrigeration equipment will minimize or eliminate the emission of compounds that contribute to ozone depletion and climate change.

l. **Minimum Indoor Air Quality**: Describe how the project will exceed minimum indoor air quality requirements through ventilation system design, implementing a construction IAQ management plan, use of low-emitting materials and other measures. How the project considered using South Coast Air Quality Management (SCAQM), Green Seal's GS-11, the Carpet and Rug Institute's Green Label Plus Program, and FloorScore requirements as standards for Volatile Organic Compound (VOC) limits?

m. **Waste Management/Recycling**: What percentage of construction waste will the project divert from landfills? Describe how the project will facilitate the storage and collection of recyclables and composting organic material.

n. **Building Reuse**: Describe any reuse of portions of the existing building such as walls, floors, roof, or interior non-structural items.

o. **Materials Reuse**: To what extent does the project use salvaged, refurbished or reused materials?

p. **Recycled Content**: What percentage of building materials will incorporate recycled content?

q. **Local/Regional Materials**: What percentage of building materials will be extracted, processed, and manufactured locally/regionally (within a 500 mile radius).

r. **Rapidly Renewable Materials**: To what extent are rapidly renewable materials such as bamboo, wool, cotton insulation, agrifiber, linoleum, wheatboard, strawboard and cork utilized?

s. **Use of Certified Wood**: What percentage of the project's wood-based materials and products will be certified in accordance with the Forest Stewardship Council (FSC) Principles and Criteria?

t. **Use of Non Toxic Materials**: To what extent does the project avoid Red List materials? This list is composed of materials that should be phased out of production due to healthy concerns such as: asbestos, cadmium, chlorinated polyethylene and chlorosulfonated polyethlene (CSPE),

(HDPE and LDPE are excluded from the Red List), chlorofluorocarbons (CFCs), chloroprene (neoprene), formaldehyde, halogenated flame retardants including PBDE, TBBPA, HBCD, Deca-BDE, TCPP, TCEP, Dechlorane Plus and other retardants with bromine or chlorine, hydrochlorofluorocarbons (HCFCs), lead, mercury, petrochemical fertilizers and pesticides, phthalates, polyvinyl chloride (PVC), and wood treatments containing creosote, arsenic or pentachlorophenol

4. INNOVATION & DESIGN PROCESS

a. **Accredited Professionals**: List all members of the project team who are LEED accredited Professionals or have other comparable certification.
b. **Innovation in Design**: Describe any additional sustainable project design or construction features.

This Ordinance shall take effect upon its passage and publication as provided for by law.

The foregoing ordinance was introduced at a meeting of the Princeton Mayor and Council held on February 25, 2013 and will be further considered for final passage after a public hearing thereon at a meeting of said Council to be held at the Princeton Municipal Building, 400 Witherspoon Street, on April 1, 2013 which begins at 7:00p.m.

Kathleen K. Brzezynski

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Deputy Clerk