Chatham Township Green Development Checklist

Please check all criteria your construction and design process includes, then sign, and submit this checklist with your Application for Zoning Permit.

A. Sustainable Sites		**A. Sustainable Sites (Cont'd)**	
1. Site selection. Do the site and building locations minimize environmental impact?		11. Landscape elements linkage. Can landscape elements be linked to form a continuous network of forage, water, and cover?	
2. Site development. Will the site protect or restore natural habitat? Particular attention should be given to protecting mature trees.		12. Diversity of habitat. Can the area create zones that provide a diversity of habitat and shelter through layers of plant heights and types?	
3. Creation of conservation easements in environmentally sensitive areas. Are there areas that would benefit by the creation of a conservation easement?		13. Consider layers of plantings that rise in height from nearest to furthest.	
4. Stormwater design - quantity control – Can methods to reduce stormwater runoff be employed? There may be both environmental and cost advantages.		**B. When Waterways are Adjacent**	
5. Rain gardens. Can rain gardens be included to manage stormwater?		1. Conserve riparian zones/stream buffers	
6. Soil erosion. Can the site be planned to reduce runoff volumes and peak runoff rates?		2. Stabilize and protect slopes, water quality, and existing vegetation.	
7. Natural recharge and infiltration without the threat of surface contamination. Consider both required elements and additional enhancements.		3. Connect riparian areas with landscape. Can a "finger" of habitat that reaches into the landscape from a riparian area be created?	
8. Limiting disturbed areas. Can disturbed areas be limited by limiting clearing and grading to a carefully described development envelope?		**C. Water Efficiency**	
9. Native plants. Can native plants that provide food and shelter for song birds, small mammals, insects, etc. be used?		1. Water efficient landscaping. Can water needed for vegetation be reduced by water efficient landscaping or drought resistant plantings? Can non-potable water be used in rain gardens or otherwise?	
10. Native and well- adapted species. Can plantings include native and well-adapted species which may eliminate or reduce the need for fertilization and pesticides?		2. Gray water Systems for properties not located within the Township Sewer Service Area. Can gray water be used for irrigation and plant watering?	

D. Materials & Resources		**E. Energy and Atmosphere**	
1. Storage and collection of recyclables. How will recyclables be collected, stored, put out for collection?		1. On-Site renewable energy. Can solar power or other non-polluting power sources be employed?	
2. Building reuse, maintain existing walls, floors, roof. Can this project reuse materials or existing building elements?		2. Support green power. Can utilities that generate from renewable sources be selected?	
3. Construction waste management - divert waste from disposal. How will runoff be handled during construction?		3. Summer solar exposure. Can vegetated screens, awnings, overhangs, and adjustable shade structures on buildings with high summer solar exposure be included in design?	
4. Materials reuse – Can materials from existing structures be reused?		4. Summer solar exposure. Can the site provide tree canopy cover and reduce hardscape for areas with high summer solar exposure?	
		F. Indoor Environment Quality	
5. Local/regional materials - materials are extracted, processed, and manufactured locally/regionally. Can the look of the property be enhanced by use of materials extracted, processed or manufactured locally?		1. Natural ventilation. Can up-draft ventilation and air scoops, for natural ventilation, be included to take advantage of prevailing westerly winds?	
6. Rapidly renewable materials. Can materials like bamboo, cotton insulation, corkboard which are rapidly renewable be used?		2. Under floor displacement ventilation. Can additional cooling in summer and heating in winter be achieved by under floor displacement ventilation?	
7. Certified wood. Can the project use wood and wood products certified by the Forest Stewardship Council?		3. Orient windows to optimize daylight potential and heat gain during winter season. Can windows be oriented to enhance natural light and heat?	
8. Reuse of crushed gravel and concrete as sub-base. Can these materials be reused as sub-base?		4. Orient thermal mass (materials that absorb, store, and conduct heat) and insulation. Can thermal mass be oriented to take advantage of southern exposure?	
9. Saw cut concrete used as dry-laid retaining walls, edging for planting beds, unit pavers. Can the project use sawn concrete for these purposes?		5. Roof-top gardens. Can a roof top garden be created to reduce solar gain and insulate in winter?	
10. Crushed glass, gravel, ceramics or aggregate for asphalt and concrete. Can these materials be reused in the project?		6. Internal heat recovery. Can the project use internal heat recovery?	
11. Asphalt reuse (as sub-base or aggregate), Can asphalt be reused in accordance with NJDEP regulations?		7. Additional insulation. Can there be additional insulation?	
12. Reuse of gravel and tar roofing materials. Can gravel, etc. be reused, thereby avoiding cartage expense?		8. Photovoltaic integration. Can there be photovoltaic integration, e.g. solar panels?	

G. Innovation & Design Process.		H. Sustainable Sites – Commercial Projects	
1. Is a member of the design team LEED (Leadership in Energy and Environmental Design) certified?		1. Development density and community connectivity. Have existing developments, Greenfields, and runoff been considered?	
		2. Site taller buildings to minimize shadows on open space and other buildings. Can groups of buildings be placed for maximum light and space?	
		3. Orient open space to maximize winter solar exposure. Can open space be oriented to maximize southern exposure?	
		4. Building massing to gather wind for the dispersion of pollutants. Can buildings be placed to help disperse air and noise pollutants?	
		5. Vegetated screening to gather wind for the filtration/dispersion of air pollutants. Can vegetative screening be so used?	
		6. Roof-top gardens and adjacent courtyards to mitigate air pollution and noise. Can these features be included in the plans?	
		7. Heat island effect – Roof. Can roofs be designed to lessen the amount of heat reflected into the environment?	
		8. Heat island effect - Non-roof. Can elements like parking lots be designed to lessen the amount of heat reflected into the environment?	
		9. Light pollution reduction. Can outdoor lighting be directed downward to reduce ambient light in the area?	
		10. Alternative transportation - Public Transportation Access. For commercial and multi-occupant buildings, can access from trains or buses be made easier?	
		11. Alternative transportation - Bicycle Storage and Changing Rooms. Can use of bicycles be encouraged? Do green vehicles get preferred parking?	
		12. Brownfield redevelopment. Can Brownfield redevelopment be part of the project?	

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Applicant_____ **Date**_____