

Western North Carolina Sustainable Communities

Mission

The goal of this program is to integrate the built with the natural environment throughout all of Western North Carolina (WNC). As such, not only is the individual building's environmental footprint important, but the impact of the entire development on the landscape must be considered. This program attempts to capture the micro and macro impacts that equal our community design with the intention of understanding these impacts as they add up and impact all of WNC.

Acknowledgements

Through the direction of the WNC Green Building Council the following committee members have been integral to the development of this program.

David Tuch, RLA, Chairman of the Committee & Vice President of Equinox Environmental
Daryl Rantis, RA, CNU, Vice-Chairman of the Committee & Principal, Daryl Rantis Architects
Joe Minicozzi, AICP, Chair of the Asheville Design Center
Ben Prater, Conservation Director, Wild South
Maggie Leslie, Program Director, WNC Green Building Council

We would also like to acknowledge the contributions of:

Chad Lloyd, Biltmore Farms	Scott Shuford, Shuford Planning
Duncan McPherson, Samsel Architects	Diedra Case
Linda Giltz, Land of Sky Regional Council	Hartwell Carson, Riverlink
Matt Vande, Vandemusser Designs	Matt Seigel, WNC Green Building Council

Intent

The intent of these guidelines evolved out of the need for developers, builders, real estate professionals, design professionals, environmental professionals, and others to have a basis for identifying a development that is environmentally sensitive and creates a community that is based on sound sustainable planning and design principles. Furthermore, these guidelines serve to educate developers on environmentally sensitive development and offer marketing benefits for implementing the measures. This certification evaluates developments based on location within the rural, suburban, and urban environments. Also, this certification is suited for the Western North Carolina region and the unique circumstances of the mountain landscape, which tends to have smaller urban centers dominated by a more rural landscapes as compared to other regions in the US. These guidelines could be more extensive and detailed however the goal of these guidelines is to educate developers and general public as well as offering third party recognition of the environmental accomplishments of the development.

This certification aims to supplement national certifications and can be used in conjunction with these other guidelines or as a standalone certification. This program focuses on the relationship of the entire development site and not the individual building or structure as addressed by the HealthyBuilt Homes program of the Western North Carolina Green Building Council (WNCGBC). This is accomplished by addressing the relationship of the landscape to the infrastructure of roads, buildings, transportation, and the relationship of those land uses toward meeting its livable needs.

This program will be administered through the WNCGBC and will require documentation so the WNCGBC can reliably and readily assess that the development meets the criteria established within the checklist. This program is based on prerequisites and credits for five categories including: Context, Environment, Site & Design, Construction & Resource Efficiency, and Innovation & Design Excellence. In order to be certified, a project must meet each prerequisite. Credits will accumulate to reach a point total for the project submitted for certification. A minimum 100 point total is required for certification. This program has been crafted so it can be flexible as it will evolve and change overtime.

Scoring

Points are gathered according to an itemized list with designation matching total achieved. In order to more appropriately define impacts, site location of development may fall into one of three category areas listed below. Accordingly, items and requirements may be specified for those areas. The second column from the left will denote requirement location, keyed as “U”, “S”, “R” and “A”

Urban (U)- in general- existing infrastructure, 3-4 sides with previously developed land, 1 mile to core (final categorical determination by wncgbc)

Suburban(S) –in general- some existing infrastructure, 1-2 sides with previously developed land (final categorical determination by wncgbc)

Rural (R)– in general- no existing infrastructure, surrounded by virgin land (final categorical determination by

All (A) - Applies to all site types

To be certified, participating development projects must be building at least 4 residential units (or 4 buildings if urban), meet the prerequisites as set forth in the guidelines and meet a minimum of 100 points to be certified.

Platinum	200 points
Gold	160 points
Silver	130 points
Certified	100 points

The application and certification is an ongoing process from the conceptual stages of planning through the building of the last house and involves:

An initial planning and design meeting with the WNCGBC Community Program staff in which the development plans and Community Checklist are discussed (pre-review)

Submission of an application, which includes thenarratives, site plans and project information. (certification of approved plan)

Submit additional documentation required of the worksheet as the site design is developed and construction is commenced and submit to site visits as necessary. (need to determine what stages are most appropriate for a site inspections)

Development shall be responsible to meet and maintain all municipal and state regulations and policies. Should the development be in violation of these, the WNCGBC reserves the right to revoke any or all designation.

Receive “Certified Community” plaque upon completion of 80% of all infrastructure and....

The Certification support provided by the WNCGBC includes ongoing technical assistance to identify strategies and provide resources to attain Community Certification and multiple site visits by Communities staff. Contact the WNCGBC for program fees. Fees may vary depending on the size, geography, location, building schedule and complexity of the project.

Y/M	Item #	Site	Points	Score		Notes
				Y	M	
1.0 Context						
Regional Plans						
Preq.	1	A	The development must be consistent with regional plans that promote smart growth. Communicate with the appropriate municipalities or state agencies to understand regional context of the development to determine how the development can meet the goals of the regional plans.	X		
Brownfields and Redevelopment						
	2	A	Redevelopment of a site that is a brownfield and had contamination or is classified as a brownfield by a local, state, or federal agency. The redevelopment addresses hazardous contamination in an approved remediation plan.	10		
	3	A	Redevelopment of a previously developed site	5		
Transportation and Location						
Preq.	4	A	No gated community or partially gated development will be considered if they disrupt the connectivity of the streets and pedestrian or greenway system.	X		
	5	A	A new bus stop is provided and will be included as part of the mass transit routine travel routes. One point per bus stop, max 3 points	1-3		
	6	A	75% of homesites are located near existing or planned transit. 1/4 mile=3pts 1/2 mile=2pts 3/4 mile=1pts	1-3		
	7	A	A shared transportation plan is developed and managed that promotes ride sharing and carpooling.	3		
	8	A	The site is located within 1 mile of: shopping, grocery stores, employment centers (jobs), schools, parks and recreation facilities, or community centers. (2 points each, max 10 pts)	2-10		
	9	A	For each item in #8 above, they need to be within 1 mile AND linked by a continuous greenway or sidewalk . (1 pt each, max 5 pts)	1-5		
	10	A	The development has embedded institutions and daily functions such as school, shopping and places of work and worship.	1		
	11	A	Developer works with the municipality for the inclusion of fire stations, parks, central postal stations and other civic functions buildings and spaces. 5 points per civic site dedicated in the development. Max 10 points	5-10		
	12	U/S	The development has more than one entry and exit and will distribute traffic through a grid of connected streets.	1		
	13	A	Points for a greenway within:			
			1/2 mile of the development	3		
			1 1/2 miles from the development.	2		
	14	R/S	Areas within that are immediately adjacent to existing protected lands, conservation easement areas, public lands, etc. protected with a min. 300' buffer.	5		
Context Total:						

Y/M	Item #	Site		Points	Score		Notes
					Y	M	
2.0 Environment							
Natural Resources							
			Perform a detailed Natural Resource Assessment prior to design including: Map of Context & Location illustrating existing infrastructure and adjacent uses to a minimum of ½ mile of the project site. Slope Analysis- Use in 5% increments (0-5, 5-10, etc. up to 60%) and topographic data reflecting 5' minimal contour intervals NRCS Soils Data or equivalent US Geological Data- Including landslide data & general geological features Natural Resource Inventory	X			
Preq.	1	A					
			Protection of Rare Plants/Animals/ Natural Plant Communities. These must be protected by placing a buffer from any type of development that is at minimum 25' away from the rare plant, habitat or natural plant community.	X			
Preq.	2	R/S					
Site Assessment							
			In addition to meeting Prerequisite 1, the following is included as part of an on-site Natural Resource Inventory and provided by a qualified botanist, wildlife biologist, ecologist, or a land trust. Botanical Inventory including rare plants, Plant Community Inventory including rare and sensitive communities, Wildlife Habitat Inventory and Ecological Landscape Inventory (large patches, small patches, corridors, overall matrix)	5			
	3	R/S					
	4	R/S	Item 3 is integrated into a Detailed Suitability Assessment Map	1			
	5	A	Regional Suitability Mapping illustrating/documenting the watershed, transportation, infrastructure and access to existing services	1			
	6	A	Item 6 is integrated into a Detailed Suitability Assessment Map	1			
	7	A	Cultural & Historic Landscape Inventory including Structures/bridges, farms, gathering spaces, heritage sites, Indian sites, etc.	1			
	8	A	Item 7 integrated into a Detailed Suitability Assessment Map	1			
	9		Site Assessment also includes:				
	a	A	Solar access/aspect	1			
	b	A	Prevailing wind pattern	1			
	c	U	Tree Survey of all trees over 24" dbh	1			
	10	A	Item 9 integrated into a Detailed Suitability Assessment Map	1			

	11		Final development is based upon the				
	a	A	General Suitability Map	5			
	b	A	Detailed Suitability Map	10			
Protection of Water Resources							
Preq.	12	A	Must comply with all local and state stream ordinances	X			
Preq.	13	A	No disturbance of wetlands for infrastructure. Maximum stream impacts due to culverts is 150 l.f. of streams.	X			
Preq.	14	R/S	Stream Buffers measured from top of bank for a width of 25' on both sides of a perennial stream if no ordinances or regulations exist	X			
Preq.	15	A	For Stream Buffer delineation, documentation of DWQ stream delineation by a certified DWQ stream delineator and/or new blue line data is needed	X			
	16	U	25' buffer around wetlands (seeps & springs) & floodway	1			
	17	U	25' min. buffer on both sides of the stream	1			
	18		Buffer around wetlands (seeps & springs) & floodway				
	a	R/S	50'	3			
	b	R/S	100'	5			
	19	R/S	50' min. buffers for 50% of the total of perennial and intermittent streams both sides of the creek	1			
	20	R	100' min. buffers for 50% of the total of perennial and intermittent streams on a property both sides of the creek.	2			
	21	R	100' min. buffers on both sides of all perennial and intermittent streams	3			
	22	R	300' buffers on both sides of all perennial and 100' on all intermittent streams	5			
Conservation of Habitat							
	23	R/S	Preservation & Conservation of Natural Resources with a Conservation Easement:				
	a	R/S	45% of the property acreage is set aside for conservation as identified by the NRA	2			
	b	R/S	70% of the property acreage is set aside for conservation as identified by the NRA	5			
	c	R/S	85% of the property acreage is set aside for conservation as identified by the NRA	10			
	d	R/S	85% of the property is protected and contiguous to adjacent protected lands including conservation easements or public lands (NFS, NP, etc)	15			
	24	U	Preservation of Landmark/Specimen Trees				
	a	U	50% or more of specimen trees (24" dbh or greater) on the property are protected.	5			
	b	U	75% or more of specimen Trees (24" dbh or greater) on the property.	10			
	25	R/S	Protect large patch ecosystems (250 acres or more that are round or oval in shape) within a Conservation Easement as identified in NRA.	10			

	26	R/S	Protection of smaller patches (round or oval in shape) of (5ac – 120 ac) of contiguous un-fragmented habitat or vegetative stands within a Conservation Easement as identified in NRA.	5			
	27	R/S	Protecting landscape connectivity and corridors for species movement and stepping stones. Corridors must included with a minimum width of 50 feet and connect to large patches, conservation areas, parks, NFS lands.	5			
	28	R/S	Protection of rare plants, animals, plant communities for species that are classified as G3 and/or S1 and S2 species by NatureServe and species and plant communities identified by the NCNHP as Watch List Species	5			
	29	R/S	Protection of habitat identified for conservation under a regional or state conservation or green infrastructure plan	5			
Farmland Preservation							
	30	A	Former agricultural areas of the property are being maintained and used for active agricultural uses such as pasture, farmland, crops, fruit and/or vegetable production.	5			
	31	A	Former agricultural use areas are protected with a conservation easement and are preserved as working farms or at minimum as pastureland.	10			
	32	A	Former agricultural use areas are maintained meadows containing native grasses and herbaceous plants	2			
Habitat/Ecological Restoration							
Preq.	34	A	If the project contains a golf course, the golf course must meet the Audubon International guidelines and there must be 2 acres of conservation land per 1 acre of golf course.	X			
	33	A	Removal of invasive exotic plants and revegetating with native plants for areas greater than 1/8 acre in size. Requires removal of 100% of invasive exotic plants listed as a Severe Threat or Significant Threat per area and 5 year maintenance plan . 1 pt per 1/8 acre of degraded area restored, max. 8 pts	1-8			
	34	A	Restoring a site to a former natural condition from a previously disturbed condition (streams, forest, wetlands, meadow, pastureland)				
	a		1/16-1/8 acre of land or 1/8 mile of stream	2			
	b		1/8-1/4 acre of land or 1/4 mile of stream	3			
	c		1/4-1/2 acre of land or 1/2 mile of stream	5			
	d		over 1 acre of land or 1 mile of stream	10			
	35	A	Enhance habitat with artificial nest boxes, food plots, etc.	1			
	36	A	Programs to engage homeowners in ongoing monitoring efforts (e.g. bird counts, invasive exotic plant removal)	1			
	37	A	Work with the NC Ecosystem Enhancement Program, NC Clean Water Management Trust Fund (or other grant programs) to enhance or restore wetlands or stream systems.	5			
Environment Total:							

Y/M	Item #	Site		Points	Score		Notes
					Y	M	
3.0 Site & Design							
Steep Slopes & Ridgeline Protection							
Preq.	1	A	Geotechnical report for developments with average natural slopes of 40% or more for landslide protection.	X			
Preq.	2	A	Perform a topographic survey indicating slopes with a contour interval of 5' or less.	X			
Preq.	3	A	Buffer identified on Suitability Map, illustrating the relationship of buildings to the ridgeline landform, covenants and restrictions that address limits of tree removal for driveway and house construction.	X			
Preq.	4	A	Temporary seeding occurs 21 days after disturbance (local ordinances that are more stringent apply)	X			
Preq.	5	A	Permanent seeding occurs 15 working days after final grading or 90 days if temporary seeding has been used (local ordinances that are more stringent apply)	X			
Preq.	6	A	Disturbance is no more than	X			
			70% of the site on 25%-30% slopes				
			35% of the site on 31-40% slopes				
			20% of the site on 41-50% slopes				
			15% of the site on >50% slopes				
	7	A	Reduce site disturbance beyond the prerequisite S&D 6 by				
	a	A	5-9%	1			
	b	A	10-14%	3			
	c	A	15% or more	5			
	8	U	Development is located on slopes less than 10% in grade in nonsentitive or agricultural areas	1			
	9	R/S	Building height is 50' lower than the top of the landform (where the base of the tree hits the ground) of the ridge on slopes.	3			
	10		Tree removal for the driveway is kept to 20' in width and 30' around the footprint of the house:				
	a	R/S	50% the lots	1			
	b	R/S	75% of the lots	3			
	c	R/S	90% or more of the lots	5			
	11	R/S	No roads constructed on cross slopes above 50% slope without the use of retaining walls to minimize cut and fill slopes.	2			
	12		Building footprint is less than:				
		R/S	2,500 sq.ft.on slopes that are 25% OR	1			
		R/S	1,050sq.ft on slopes greater than 25% OR	3			
		R/S	576 sq. ft on slopes greater than 25%	5			
	13	U	Multifamily building is no more than 60' (as measured from lowest point of building to the ridge of the roof) tall on slopes greater than 40% slope	1			
	14	A	80% of the development is concentrated in clusters on slopes of 25% slope and less.	5			

	15	A	Meeting the Strategies identified by Land Of Sky Regional Council's Mountain Ridge and Steep Slope Protection Strategies.	10			
Viewshed Protection							
Preq.	16	A	Viewshed Analysis Map, Description of viewshed impacts and avoidance and mitigation techniques used.	X			
	17	A	Road clearing is less than 60' in width for all roads within view from outlying areas (road corridors, subdivisions, downtown locations)	1			
	18	A	If the development is located within the viewshed of the Blue Ridge Parkway, Appalachian Trail, Scenic Byway, or urban center then covenants and restrictions or adoptable design guidelines are developed that address the use of natural colors, roof colors and glare, minimization of vegetation removal, or 50% or more of development is immediately screened with natural vegetation or new plantings.	5			
	19	A	Land within viewshed of the Blue Ridge parkway, Appalachian Trail, or Scenic Byway is set aside in a conservation easement.	5			
Stormwater							
Preq.	20	A	Create and submit a plan illustrating stormwater system and stormwater calculations including a copy of a stormwater maintenance plan.	X			
	21	A	Each accepted stormwater BMP used to treat at minimum the first 1" of runoff (1pt each, max 10 pts)	1-10			
	22	A	Stormwater BMP is located within 50' of the source of the runoff and is sized to treat the first 1" of runoff	2			
	23	A	Minimize traditional systems which do not allow for infiltration (closed piped systems) by 50% and utilize multiple and connected stormwater BMPs to create a linked chain or "train" of stormwater treatment	5			
	24	A	Hydrology after development is equivalent to the hydrology prior to development	5			
	25	A	Stormwater maintenance plan that has funds being allocated by homeowners association or other funding mechanism for long term maintenance.	3			
	26	A	Use of certified "Clear Water Contractors"	1			
	27	A	Hire a qualified stormwater and erosion control inspector to monitor their development and to make necessary improvements.	1			
	28	A	Use of temporary Sediment & Erosion control BMP measures	2			
Appropriate Infrastructure Design.							
	29		Road cut and fill does not exceed				
	a	R/S	100' in width for more than 50% of the property OR	1			
	b	R/S	100' in width for more than 90% of the property and no more than 60' for 10% of the property OR	3			
	c	R/S	60' for 85% of all roads and the remaining 15% of cut and fill not exceeding 100'	5			
	30	R/S	No Switchbacks	1			

	31	A	Roads shall not exceed the minimum design standards per health & safety (fire department) and municipal requirements.	2			
	32	U	Roads in urban areas follow New Urbanism/Smart Code guidelines for roads	3			
	33	A	Roads do not impact streams at all OR Bridge or arch culverts/bottomless culverts used for all perennial stream crossings (minimize stream crossings)	3			
	34	A	Bundle utilities together and tunnel or hand dig lines through sensitive root zones of trees with a dbh greater than 24"	2			
	35	A	Install utilities under roadway and/or under sidewalks when allowed by local code	3			
Housing Density							
	36	U/S	Dense housing (16 units per acre or more) that has diversity of unit types (3 or more: multifamily, duplexes, townhomes & single family)	3			
Diversity of Building Types							
	37	A	Development includes one or more new uses other than housing (retail, church, schools, live work, etc., (max. 5 points)	1 per use			
	38	A	A variety of housing prices from affordable to high end residences.	2			
	39	A	A variety of housing types from single family detached to multifamily mixed use.	2			
	40	A	A variety of building forms and floor plans available	2			
	41	A	Provide a minimum of 20% affordable housing as defined by the nearest municipality	2			
Walkability and Greenways							
	42	U/S	Development has internal pedestrian network. The Pedestrian system length must equal the road system length at a minimum.	2			
	43	A	Greenways and other trails systems within the development are constructed	5			
	44	A	Provide an easement for greenways or trails for future construction	2			
	45	R/S	Development provides alternative internal circulation other than the automobile (bike, foot, segway, golf cart).	2			
	46	R/S	Minimum 1 acre park(s) within the development	5			
	47	U	Minimum 1/6 acre park(s) within the development	5			
	48	A	Parks linked together through an interconnected pedestrian network	2			
Compact/Clustered Development Pattern							
	49	R	Development does not have a sewer system and meets the following: subdivided lots no more than 1.50 acres in size lots abutting one another (clustering) development that provides open space, green space, or conservation areas in between clusters.	5			

	50	R/S	Development has a sewer system, or suitable soils for shared septic system, package treatment plant, or an innovative waste treatment system with the following: subdivided lots no greater than ½ acre or less in size development that provides open space, green space, or conservation areas in between clusters.	5			
	51	S/U	High density development with 16 units or more per acre of buildable area with accessible common open space.	3			
	52	R	Development is laid out as a hamlet .	5			
Development solar orientation							
	53	A	Development is laid out to allow buildings to receive solar gain on heat load days				
	a	A	50% of lots	2			
	b	A	70% of lots	3			
	c	A	90% of lots	4			
	54	A	Streets, parking lots and public areas with shaded deciduous trees	3			
	55	A	Plan that allows individual gardening to be located on each lot and not be shaded by the building forms in the growing season.	2			
Landscape Enhancements & Vegetation.							
Preq.	56	A	50% of plantings must be native plants. Plants listed on TN or NC; invasive exotic plants may not be used.	X			
	57	A	95% native plant used in landscaping or 60% native plants with remaining 40% comprising drought tolerant plants	5			
	58	A	Lawn areas are less than 10% of the entire landscaped areas.	1			
	59	A	Impacted plants due to construction are rescued prior to construction and used in landscaping for the subject property	1			
Gardens-Edible Landscaping							
	60	A	10% of new plantings are non-invasive edible plants	1			
	61	A	A designated area for growing food is set aside within the development	3			
	62	A	Includes a community space that can function as a farmers market.	2			
Water Re-use and Harvesting							
	63	A	Rainwater or greywater catchment system that is reused for irrigation (all irrigation would need to be from water catchment within 2 years)	3			
	64	A	Rainwater or greywater catchment system that is treated and reused for toilet flushing.	4			
	65	A	Development captures, treats, and reuses water for potable water system.	5			
Site and Design Total:							

Y/M	Item #	Site		Points	Score		Notes
					Y	M	
Construction & Resource Efficiency							
Energy Efficiency in New Buildings							
Preq.	1	A	90% of new residential construction and Multifamily under 3 stories must receive Energy Star certification.	X			
Preq.	2	A	For new commercial structures or Multifamily over 3 stories reduce energy usage by 10%. Submittal requires approved Whole Building Simulation Performance rating compared to the baseline building performance rating per ASHRAE/IESNA Standard 90.1 OR Comply with the prescriptive measures of the ASHRAE Advanced Energy Design Guide as appropriate to building type.	X			
	3	A	For commercial buildings or multifamily over 4 stories: Reduce Energy Use as compared to ASHRAE Advanced Energy Guidelines by 15%= 1pt, 20%=2pts, 25%= 3pts etc	1-10			
	4	A	For multifamily buildings under four stories, or single family construction: average HERS score 80=1pt, 75=2pts, 70=3pts etc	1-10			
Certified Green Buildings							
	5	A	Percentage of total square footage of New buildings certified through NC HealthyBuilt or LEED: 10%=1 pt, 20%=2pts.....100%=10 pts	1-10			
Infrastructure Energy Efficiency							
	6	A	Install exterior lights on motion or photo sensor	1			
	7	A	Exterior lighting powered by alternative energy	1			
	8	A	Install LED traffic signals	1			
Reduced Water Use							
	9	A	Indoor water use in new commercial and multifamily buildings over 3 stories uses less water than baseline buildings. The baseline shall meet the requirements of the 2006 International Plumbing Code. Calculations include water that is captured for reuse. 10% reduction=1 pt, 20%=2, 30%=3, 40%=4, etc.	1-10			
	10	A	For residential and multifamily under three stories, the average flow rate of shower heads and faucets is 2.0 GPM or less	1			
	11	A	For residential and multifamily under three stories, the average flow rate for toilets is 1.3 GPF or less	1			
	12	A	For residential and multifamily under three stories, the average flow rate of faucets is 2.0 GPM or less	1			
Waste Management							
Preq.	13		Develop and implement a construction waste management plan that, at a minimum, identifies the materials that can be reused or recycled locally	X			
	14	A	Provide Construction recycling drop off point with dumpsters for wood, cardboard, drywall, metal, glass, plastic (1pt for each material)	1-5			
	15	A	Provide recycling drop off point for residents (paper, glass, plastic, cardboard and aluminum)	2			

	16	A	Provide household hazardous waste collection	2			
	17	A	Provide a compost station	2			
	18	A	Tenant/buyers materials must contain educational documents to verify local recycling and hazardous waste disposal if they are not provided by the development	1			
Minimizing Site Disturbance							
Preq.	19	A	Site plan indicating stormwater, sediment controlling devices, construction plan for maintaining particulate control on an individual lot basis.	X			
	20	A	Limit all site disturbance to 40 feet beyond the building perimeter; 10 feet beyond surface walkways, patios, surface parking and utilities less than 12 inches in diameter; 15 feet beyond primary roadway curbs and main utility branch trenches; and 25 feet beyond constructed areas with permeable surfaces	2			
Heat Island Reduction							
	21	A	Paving materials with a Solar Reflectance Index (SRI) of at least 29.	2			
	22	A	Open grid pavement system	1			
	23	A	Place a minimum of 50% of off-street parking spaces under cover (with and SRI of at least 29)	1			
	24	A	Use roofing materials that have a Solar Reflectance Index (SRI) equal to or greater than Low-Sloped Roof _ 2:12 78, Steep-Sloped Roof 2:12 29	2			
	25	A	Install a "green" (vegetated) roof for at least 50% of the roof area of all buildings within the project (Combinations of SRI compliant and vegetated roof can be used provided that they collectively cover 75% of the roof area of all buildings)	5			
Renewable Energy and Energy Generation							
	26	A	Install a renewable energy system that will distribute energy to multiple housing units in the project. One point per percentage of the projects service load produced/reduced.	1-10			
	27	A	Design the larger structures with significant roof top areas to allow solar gain for future district solar systems	2			
Materials							
	28	A	Use recycled aggregate for roadways, parking lots, sidewalks, and curbs such as crushed Portland cement concrete and asphalt concrete (points based on percentage)	2			
Existing Buildings- Historic Preservation and Adaptive Reuse							
	29	A	Reuse of buildings that maintain at least 50% of the existing building structure (based on surface area): 25% of structures=1pt, 50%=2, 75%=3	1-4			
	30	A	Rehabilitate one or more Historic Structures according to local guidelines.	1-4			
Constr. & Resource Efficiency Total:							

Y/M	Item #	Site		Points	Score		Notes
					Y	M	
5.0 Innovation & Design Excellence Credits							
Resource Management							
	1	A	Development uses materials that are locally harvested and produces within a 250 mile radius of the development.	2			
	2	A	Development that reuse materials harvested from the site. IE Stone, Wood, gravel.	2			
	3	A	Develop forest management plan in collaboration with NCFS.	2			
	4	A	Develop an invasive exotic management plan with 5 year funding mechanism for the removal of invasive plants	5			
Placemaking							
	5	A	Developments that achieve placemaking through the use of quality and appropriate architectural details through out the public realm of the development.	1			
	6	A	Development incorporates climate appropriate architecture and details.	4			
	7	A	Developments that incorporate building technologies that incorporate local crafts and local materials as well as establishing or using existing local building traditions.	2			
	8	A	Buildings contain natural non-synthetic materials	3			
	9	A	Creating a design code of an architectural language for a majority of the buildings that is appropriate for the climate.	3			
	10	A	Design guidelines preserves the vernacular architectural traditions and/or cultural heritage of its location and is consistent with the historic architectural precedents of the town or region.	4			
	11	A	Creating a place that is appropriate in form to relate directly to the context and location of the development (IE: rural place feels rural and urban spaces feels urban.)	2			
	12	A	Create places that are an appropriate response to issues of terrain.	5			
Environmental Education							
	13	A	Develop environmental curriculum or literature for the property.	2			
	14	A	Locate signage throughout the development describing the natural/cultural resources or sustainable design techniques incorporated into the development.	3			
	15	A	Sponsor Environmental Education Center or Nature Center on Property to manage ongoing monitoring and community education activities.	5			
	16	A	Provide funding for a local conservation group or nature center at a minimum of 1% the value of the proposed development profits.	3			
	17	A	Provide funding for a local conservation group or nature center at a minimum of 5% the value of the proposed development profits	5			

Community Spaces						
	18	A	Creating a public place/s that function as a community centers and gathering spaces.	3		
	19	A	Create public realms through a diversity of building types, forms and architectural details. Public realms (ie: streets, squares, plazas, etc.) are well proportioned and contain space that is comfortable to human activity with 1:1 to1:2 ratio of building height to horizontal space.	3		
Light Pollution						
	20	A	Development provides a lighting plan and lighting regulation that addresses “Dark Skies” initiative for public spaces and individual structures.	2		
	21	A	Dark skies compliant fixtures for all street lamps.	3		
	22	A	Street lights that sync with moon cycles, reducing their lighting during full moon cycles.	2		
Innovation and Design Excellence Total:						
Checklist Total:						