



EarthCraft Communities
Program Guidelines
Version 2.0

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Introduction

EarthCraft Communities (ECC) is a developer-certified, third-party verified program that recognizes responsibly designed and constructed communities in the Southeast. It is a region-specific tool utilized by land developers and local government agencies to promote smart growth, sustainable land development practices and healthier communities. The program is designed to encourage a thoughtful design and development process that creates high quality communities.

The EarthCraft Communities Technical Guidelines (Technical Guidelines) contain the certification process, rules and responsibilities for the program participants, and it gives important detail on requirements and opportunity credits. The program materials are comprised of the Technical Guidelines, the EarthCraft Communities Worksheet (Worksheet) the EarthCraft Program Manual (Program Manual) and the EarthCraft Technical Advisor Manual (TA Manual).

Program Format

EarthCraft Communities (ECC) is designed to direct community-scale developments to more sustainable outcomes. This is achieved through an intentional community engagement process, respecting the local contextual form, highlighting the public realm and focusing on responsible site development practices.

To participate in the program, each potential ECC project must work with a qualified EarthCraft Technical Advisor (TA). The TA educates the project team on the requirements and goals of the program and provides technical assistance and verification services. Each TA is subject to a rigorous Quality Assurance protocol completed by EarthCraft Communities Administrators (ECC Administrators).

The project team should engage a TA to determine project eligibility prior to any design and engineering has been completed. The TA will educate the project team about the programmatic requirements and provide design and verification consultation.

The TA is the project team's primary contact with the EarthCraft program. All certified TAs may be found on EarthCraft.org. Additional resources can also be found there.

Certification Requirements

To achieve certification a project must meet all program requirements and achieve 100 opportunity credit points.

Certification Timeline

A development must enter the program prior to permitting and site planning. Entry to the program is done by completing an ECC Site Review with a TA. When a project is accepted into the program, the name of the community and development company is listed EarthCraft.org as a "Project Pursuing EarthCraft Communities Certification."

Upon entering the program, the development must contract with a TA to document and complete all site planning, community engagement, design meetings and construction activities per these Technical Guidelines. During construction, the TA conducts site visits to ensure compliance with the verification documents submitted.

Throughout the project, the TA will collect the required documentation for each ECC Credit and Requirement. This documentation must be preserved for 3 years and a selection must be submitted to ECC Administrators for review.

All certification activities are described following the outlined timeline below.

EarthCraft Communities Timeline



1. Determine Project Eligibility

ECC Site Review

To determine whether the project has the ability to meet all program requirements and achieve 100 opportunity credits, the project must undergo a Site Review.

The TA will lead the project team through the achievement of all program requirements. In addition to meeting base program requirements, the project must also achieve a minimum of 100 opportunity credit points in order to achieve certification.

Projects apply to enter the EarthCraft Communities (ECC) Program by completing an **ECC Site Review** with a TA. During the site review, the TA assists the development team create preliminary site plans and the required site review documents. These documents help the project team decide the appropriate Project Boundary, Development Form, and Eco-Region.

Next, the TA will determine whether the project has the ability to achieve all threshold requirements and attain 100 points. Upon the positive determination of the project's certification feasibility, the project may then enter the ECC Program.

The TA will continue to lead the project through the achievement of all program requirements

Project Boundary

Projects must first establish the project boundary which the certification will cover. The project boundary must include all disturbed land and in some cases may be discontinuous. The project boundary must also include any adjacent land disturbed by any member of the project's ownership group. Projects of all size are allowed to enter the EarthCraft Communities program.

If multiple phases of development are planned, it is allowed to certify each phase in series or parallel. For example, to certify in series Phase 1 would earn a complete certification. Then each subsequent phase would annex into the previous project boundary and certification. Multi-phase certifications are needed to accommodate some funding sources. When annexing into a prior certification, a project registration will be required. However, if initial public engagement, site review, and design charrette plan for multi-phase project these requirements may be waived for subsequent phases.

Development Form

Each ECC development must follow one of the two ECC development forms: urban or conservation. At the beginning of the development process each project must determine which development form is applicable to the site location which is being developed. The distinctions between urban and conservation form are the area requirements for greenspace and open space and connectivity requirements. Please note that the urban qualification can be achieved by locations within a major urban center, a town center, neighborhood center, or village center but excludes locations within a suburban land use pattern.

To qualify in the urban track the proposed ECC development must qualify as an infill location with walkable pedestrian connections to an existing sidewalk network. In order to determine whether the urban or conservation program track is most appropriate for your development the project team should analyze the site and surrounding development to determine the following:

- 1. Does this project qualify as an infill location?*
- 2. Will the project have walkable connections to an existing sidewalk network (existing or created)?*

To enter the urban track the project must answer yes to both of these questions. If neither of these elements fit your proposed development the project must enter the conservation track.

Once the appropriate development track determined, the project team will continue to follow the requirements and point weights for the appropriate development form throughout the guidebook. Following the development form determination, the project's EC TA will assist in determining the site's eco-region.

Eco-region

ECC bases its characterization of a project region on the U.S. Environmental Protection Agency's (EPA) eco-regions map, "Level III Eco regions of the United States." The project will be within an eco-region and will follow the requirements and point weights for that region throughout the guidebook. Some requirements and point weights - such as those referencing steep slopes and floodplain avoidance - are adjusted to reflect the physical characteristics of eco regions. The following eco-regions will be used in EarthCraft Communities:

1. Coastal Plain (lower): This Eco-Region is generally lower in elevation with less relief and wetter soils than the Southeastern Plains. This region extends from South Carolina and Georgia through much of central Florida and along the Gulf coast lowlands of the Florida Panhandle, Alabama and Mississippi.
2. Southeastern Plains: This Eco-Region has elevation and relief greater than in the lower coastal plain region, but generally less than in much of the Piedmont. Streams in this area are relatively low-gradient and sandy-bottomed
3. Piedmont: This Eco-Region is considered the no mountainous portion of the Old Appalachians Highland. This region comprises a transitional area between mostly mountainous Eco-Regions of the Appalachians and Plains.
4. Ridge/Valley/Mountains/Plateau: The Mountain Eco-Region varies from narrow ridges to hilly plateaus to more massive mountainous areas with high peaks. The low mountains contain a mosaic of forest and woodland with some cropland and pasture. The Ridge/Valley Eco-Region is a relatively low-lying region between the Blue Ridge and Appalachians. The Plateau Eco-Region has elevations lower than the Mountain region.

To determine which Eco-Region is applicable the project visit EarthCraft.org or to view the EPA Eco-Regions map, visit: <https://www.epa.gov/eco-research/ecoregion-download-files-state-region-4>.

Site Review Documents

The project must provide the following information to the ECC TA before the Site Review:

- An electronic copy or link to the regional comprehensive plan and supporting documentation on planned growth in the area. The regional comprehensive plan should identify any watershed management priorities as well as any climate action plans created by the local or regional planning agency.
- Identification of the project's environmental Eco-Region (Piedmont, Coastal or Mountain) and the project's development form (Urban or Conservation).
- A detailed aerial photograph of the parcel and surrounding land (1/2 mile from project boundary minimum).
- Identification of surrounding land uses.
- Topographic map.
- Map identifying all wetlands, floodplains and riparian zones within 1/2 mile of project boundary.
- Identification of any critical habitat for rare or endangered species.
- Preliminary site drawings.
- Legal boundaries of parcel.
- Or, Natural Resources Inventory as defined in 2016 Georgia Storm Water Management Manual.

Site Review Report

The project team will receive a brief report providing them the results of the Site Review. They should use the information to further research costs and scheduling implications of the targeted ECC points identified at the Site Review. The Site Review report is a written word document and/or preliminary Worksheet with notes. Its purpose is to capture major issues discussed during the Site Review. It is the responsibility of the project team to take notes during the Site Review and conduct all necessary research and planning before entering the ECC program.

Salesforce Submittal Requirements – Site Review Submittal (Prior to Project Registration):

1. *Create Project Record on Salesforce*
2. *Create Site Review Submittal*
3. *Site Review Documents*
4. *Site Review Report*
5. *Preliminary Worksheet*
6. *Preliminary Site Plan with project boundary*

2. Register Project

Developers register a project with EC Administrators upon successful completion of the ECC Site Review with an ECC.¹

3. Design Review

A. Site Analysis Packet – PD 0.1

Project teams should analyze the project site as outlined in the ECC Site Analysis Packet and utilize the information to inform the community design and sustainable strategies of the project. The full Site Analysis Packet must be completed and submitted prior to the Design Charrette. The developer is responsible for printing the Site Analysis Packet and bringing it to the Design Team Charrette at 1 inch=60ft scale.

Community Participation Meeting

ECC requires that each project team, early in the conceptual design phase, host a public meeting either on the project site or in a public building near the site (library, civic center, etc.) and invite the community to openly discuss the project. This meeting can take place prior to or after the Kickoff Meeting and Design Charrette.

ECC Design Team Charrette

- B.** After the Site Analysis Packet has been completed, the project team must host one full-day preliminary site planning charrette with the developer, construction representative, full design team, relevant local public officials and the TA. The design team is comprised of architects, landscape architects, planners or engineers whose participation will impact the site plan. Work with the TA to organize the charrette goals and schedule as well as review who must be present. The full Site Analysis Packet must be completed and submitted to ECC prior to the Design Charrette. The developer is responsible for printing the full Site Analysis Packet and bringing it to the Design Team Charrette at 1inch=60ft scale. **ECC**

Kickoff Meeting

The project must host an ECC kick-off meeting for the full design and construction team. The purpose of this meeting is to review and assign responsibilities for the ECC program documentation requirements relevant to each discipline. The ECC TA will also review how to update the Worksheet and how to submit documentation.

Depending on the agenda of the Design Team Charrette and the project timeline, this Kickoff Meeting can be held as part of the charrette or at a later time. After this Kickoff Meeting, the project team is fully responsible for updating the project's Worksheet and submitting all verification materials to ECC Administrators.

¹ All projects pursuing LIHTC funds must register with EarthCraft prior to the LIHTC application deadline. EarthCraft will withhold the project registration fee until the LIHTC funding is received for the project.

Salesforce Submittal Requirements – Design Review Submittal (Upon Completion of A-D):

1. *Current Worksheet*
2. *Charrette Report*
3. *Site Plan*
4. *Erosion and Sedimentation Control Plan*
5. *Civil Engineering Plan*
6. *Landscape Plan*
7. *Tree Save Plan*
8. *Georgia Storm Water Management Calculator*

4. Mid-Construction Review

A. Site Visits

During project construction, ECC Administrators conduct site visits for quality assurance and confirmation of program compliance. Certain credits may require a site visit in order to verify compliance. At minimum, two site visits are required per year or per phase of the development. The site visits should be scheduled by the developer or general contractor. The TA may also make unannounced site visits.

B. Mid-construction Submittal

The project team is responsible for submitting all site plans, construction documents and any other verification materials pertinent to this stage, to TA. Additionally, the team must submit the Worksheet - updated with the narratives, calculations, etc.

The project team should work with the TA to ensure that the correct documents are collected, using these Guidelines as a reference.

Salesforce Submittal Requirements:

1. *No required Salesforce Submittals*

5. Final Review

Narratives, updated calculations, and permitted construction documents and other verification materials not available at the time of the Pre-Construction ECC Submittal must be submitted. The accompanying Worksheet is updated and submitted by the project team to ECC Administrators.

Salesforce Submittal Requirements - Final Submittal (Upon Documentation of all Credits):

1. *Final Worksheet*

6. Certification

A development certifies within the ECC program upon completion of infrastructure improvements and community facilities, final sale of individual housing lots, recording of final plat, and submission of all ECC documentation and controlling instruments. Upon program completion, the project will receive a certification plaque for on-site display and a listing on the EarthCraft website as a "Certified EarthCraft Community."

Certification Resources

ECC Technical Guidelines

These Guidelines complement the Worksheet. They contain an overview of the certification process and program criteria.

The Guidelines outline:

- ECC certification process
- Project requirements and points for each Eco-Region and development form
- Criteria (actions or strategies) necessary to satisfy the requirement or point(s)
- Descriptions of how the requirements or credits will be verified with documentation and/or site inspection

ECC Worksheet

The Worksheet complements the Guidelines. Each project receives a worksheet at the Site Review and uses the Worksheet to submit documentation to ECC Administrators. The Worksheet is used to assist in project management and to track the project's certification progress.

The Worksheet tracks:

- Project requirements
- Submission of verification documents
- Status of review of verification documents
- Project team members

EarthCraft Program Manual

The Program Manual provides the project team with a description of how the program functions, the available certifications, and marketing and program participation rules.

The EC Program Manual describes:

- Benefits of EarthCraft
- Certification Process
- Program participants
- Program process
- Marketing rules

EarthCraft Site Resources Map

The EC Site Resources Map is a clearinghouse of information pertaining to the EarthCraft certifications. Use the Online Map to determine:

- Eco-Region
- Presence of floodplains
- Rainfall data
- Critical habitats
- Riparian Buffers
- Wetlands
- And Jobs and Housing Balance

Variance Process

Variance requests are submitted in the appropriate format directly to the project's TA and may be requested if extenuating circumstances (such as physical parameters or other insurmountable conditions) make achieving a specific credit unattainable. Financial burden is not an acceptable variance request.

If the variance is administrative (for instance: a minor issue of interpretation, a clearly reasonable request or a variance that was previously granted to a project), the ECC Administrators may accept or deny the request.

If a detailed interpretation is required, or if the project team is unsatisfied with the decision, the Administrator can submit the variance request to a panel of three ECC Council representatives. The panel will be assembled by the ECC Administrators and will consist of at least two members who are experts in the field for which the variance is requested. This panel will decide via majority vote whether the request should be accepted or denied. If additional information is requested by this panel, it will be communicated to the project team through the ECC Administrators.

Decisions made by this panel are final.

All decisions will be issued within four weeks of the original variance request.

Anonymity of both the project and the Council members reviewing the variance will be maintained by ECC Administrators.

Number of Allowed Variances

ECC allows each community to apply for a variance request for no more than two pointed items. Variances for ECC requirements will not be granted.

Who May Request

Due to the limited number of variances, only the TA can request a variance.

When to Request

Projects may request a variance during design or construction stages of land development.

Variance Format

The TA should send a signed electronic document (either emailed or uploaded to the ECC File Transfer Site) that:

- Identifies the credit for which the variance is requested
- Describes the hardship
- Proposes an alternative to the credit

This alternative must be reasonably consistent with the original credit and should be written in the same format as an ECC credit: with criteria, documentation and inspection requirements.

Consent to Disclose EarthCraft Project Information

All EarthCraft Builders of single family, multifamily, or light commercial within an EarthCraft Communities development must provide consent to release applicable information regarding all construction within the community.

It is the community developer's responsibility to provide the consent form and have each construction team sign and return. The developer must return this to ECC Administrators. See the end of this document for a consent waiver form to distribute to all EarthCraft builders in your community. As new EarthCraft Builders come on line within the community, an additional consent waiver will be required prior to commencement of construction activity.

Site Selection

SS 0.1 Protect Floodplains

Southeastern Plains, Piedmont, and Ridge/Valley/Mountains/Plateau: Requirement
Coastal Plain (lower): 5 Points

Purpose

Reduce the potential for flood damage to property and preserve natural hydrology.

Criteria

If the project is located on a Previously Developed Site or obtains Infill Location points within this program, AND the site contains land within the 100-year floodplain, follow National Flood Insurance Program requirements for construction in those areas.

For all other sites, create no new development of any impervious surfaces within the 100-year floodplain as defined by the Federal Emergency Management Agency (FEMA) or state and local flood maps, whichever is more recent.

Verification

- Most recent FEMA, state or local flood map. Clearly indicate location of property lines.

SS 1 Previously Developed Site

2 points

Purpose

Encourage the development of already disturbed lands and reduce development pressures on undisturbed land.

Criteria

Locate the project on a previously developed site (see definitions page).

Verification

- Impervious area calculations.
- Aerial photograph indicating the site boundary.
- Inspection by an ECC Technical Advisor.

SS 2 Brownfield Redevelopment

4 points

Purpose

Encourage mitigation and redevelopment of contaminated sites, and create development in neighborhoods blighted by brownfields.

Criteria

Locate the project on a site where any portion is identified as a brownfield by the appropriate state or federal agency. Remediate any hazardous contamination per the appropriate state voluntary cleanup program or through federal guidelines (SARA).

See definitions page.

Verification

- Copy of Phase II assessment results.
- Letter confirming government designation as a brownfield.
- Voluntary cleanup program compliance documentation.

SS 3 Greyfield Development

2 point

Purpose

Encourage development of sites with existing infrastructure, reclaim underutilized land, improve the surrounding neighborhoods and reduce development pressure on undeveloped land.

Criteria

Develop on a greyfield site (see definitions page).

Verification

- Narrative indicating how the site meets the above definition of a greyfield.
- Aerial photograph indicating the previously developed site and the property boundaries.
- Inspection by an ECC Technical Advisor.

SS 4 Infill Location

	25% - 2 points
	50% - 3 points
	75% - 4 points

Purpose

Efficiently use public and private infrastructure, reduce pressure of development in greenfield locations, and increase density and connectivity in the urban landscape.

Criteria

A. Urban

Project is served by existing public sewer infrastructure AND the project’s boundary is adjacent to previously developed sites. The project must have pedestrian links to an existing sidewalk network.

B. Conservation

Project is served by existing public sewer infrastructure AND the project is adjacent to previously developed sites such that the project’s developed area will be adjacent to the development of the adjacent site.

C. Urban and Conservation

For this credit, permanently-preserved cemeteries and public open spaces are considered previously developed.

All bodies of water along the project boundary will be excluded from the calculation. The only exception to this is the presence of a stream along the project boundary, wherein the status of the land on the other side of the stream is used for this calculation.

State, city or federally designated natural areas primarily intended for habitat protection (such as state or national parks) are considered undeveloped.

If the boundary of the parcel is a roadway or other right-of-way, the parcel is not considered previously developed. In such cases, the status of the parcels on the other side of the right-of-way is used in this calculation.

Natural corridors, such as locally or ECC-required buffers or habitat corridors, greenways and agricultural land are not considered previously developed. If these areas are less than a ¼ mile in width, then the property immediately adjacent to them is used for this calculation.

Percentage of property boundary adjacent to previously developed land	Points
25%	2
50%	3
75% or more	4

Verification

- Aerial photograph clearly identifying adjacent and surrounding properties and their status as previously developed.
- Inspection by an ECC Technical Advisor.

Example



Above Image: The conservation development above shows the developed area adjacent to two previously developed sites, Parcel and Parcel C. The developed area has a 2,357' perimeter and the border adjacent to previously developed parcels is 602.67'. This is 25% of the developed area boundary which receives 2 points. While Parcel A is adjacent to the property boundary, it does not border the developed area; thus cannot count towards the calculation. The Nature Preserve along the southern border of the property boundary is considered undeveloped; thus does not count towards the infill percentage.

Correction: in the key above the dark shaded areas should read developed area of site, not area of highest density.



Above Image: The urban development above shows a project boundary of 1,570'. The project is surrounded on three sides by roadways, so the status of the parcels across the street is used for this calculation. Most of those parcels qualify as previously developed sites. The public park is permanently preserved openspace, thus qualifies as previously developed in this credit. Thus, the project boundary adjacent to previously developed sites is 1,240 and equates to over 75% of the total project boundary.

SS 5 Activity Center Location

2 points

Purpose

Encourage development within areas identified for intensive development of business districts, downtowns, lively neighborhoods, mixed-use developments or expansion of multimodal transportation.

Criteria

Locate the project in an area identified for intensive development by the applicable local or regional development authority. Work closely with planning and government entities to ensure the project meets the activity center's goals and needs.

Economic development agencies and Chambers of Commerce plans for growth do not qualify.

Verification

- Electronic link to regional growth plans or other documentation that clearly defines the area as an activity center location.
- A narrative briefly describing the activity center location and how the development will promote the goals of this location.

SS 6 Jobs and Housing Balance

2 points

Purpose

Create communities with a balance of job and housing opportunities to reduce vehicular travel and improve residents' access to employment.

Criteria

Create a community that brings the jobs-to-housing ratio closer to 3:2 (three full-time jobs to every two residential housing units) through residential development in a job center.

Use either the latest U.S. Census Tract or recent local municipal statistics to find the number of jobs and the number of housing units existing in the area prior to the proposed community.

Verification

- Submit the number of projected residential housing units created by the development and the number of existing jobs and housing units in the area.
- Submit the final build-out number.

SS 7 Telecommuting Provisions

2 points

Purpose

Reduce the number of vehicle miles traveled by community residents.

Criteria

Provide infrastructure for wireless Internet for 100% of residential units in the project.

AND EITHER

Develop 10% of residential units as live/work units. Project must indicate support of the product design with appropriate zoning and integrate design features such as:

Ground level street frontage guest entry separate from private entry.

OR

Develop 10% of residential units with dedicated home office space. Projects must demonstrate that they are facilitating the use of the space as a home office and integrate these features:

1. A finished basement or extra room for an office
2. Built in workstation option
3. Provide internet service to all units.

Verification

- Utility plan or other appropriate documentation clearly indicating provision for Internet services or letter of availability.
- Conceptual site plan indicating planned number of live/work units as allowed by zoning.
- Final construction documents or other controlling documentation indicating number of live/work to be constructed.

OR

- Utility plan or other appropriate documentation clearly indicating provision for Internet services or letter of availability.
- Conceptual site plan indicating planned number of units with home office provisions.
- Final architectural floor plans for the home office units that indicate the dedicated areas and their unique design features.

SS 8 Proximity to Bike Path

2 points

Purpose

Provide safe non-vehicular transportation choices, promote community interaction and reduce the number of vehicle miles traveled by community residents.

Criteria

Locate the area of highest density in the community within a ½-mile linear distance of an existing or planned and funded bike and/or multi-use path linking development nodes. Path must utilize appropriate safety measures for context and setting.

State designated bike routes do not qualify unless they include appropriate bicycle infrastructure for setting and context. Bike sharrows are only allowed on streets with a design speed of less than or equal to 15 miles per hour.

AND

Provide directional signage to the path along all internal community roads and roads immediately adjacent to the project.

Verification

- Conceptual site plan and/or aerial clearly indicating the boundary of the planned area of highest density, the location of the existing or planned bike path
- Documentation from the appropriate agency or organization verifying the layout and funding for the future path.
- Signage plan indicating directional signage placement.
- Inspection by an ECC Technical Advisor.

SS 9 High Quality Bus Service

General Proximity - 2 points

Highest Density - 4 points

Purpose

Provide multiple transportation opportunities for residents and visitors.

A. General Proximity – 2 points

Criteria

Locate and design the community such that a boundary point on the development footprint is within ¼-mile walkable distance of an existing or planned/funded local bus stop.

B. Highest Density – 4 points

Criteria

Locate the area of highest density in the community, within ¼-mile walkable distance of an existing or planned/funded public bus route that runs at appropriate intervals (minimum of 30 trips per day in each direction of service).

Verification

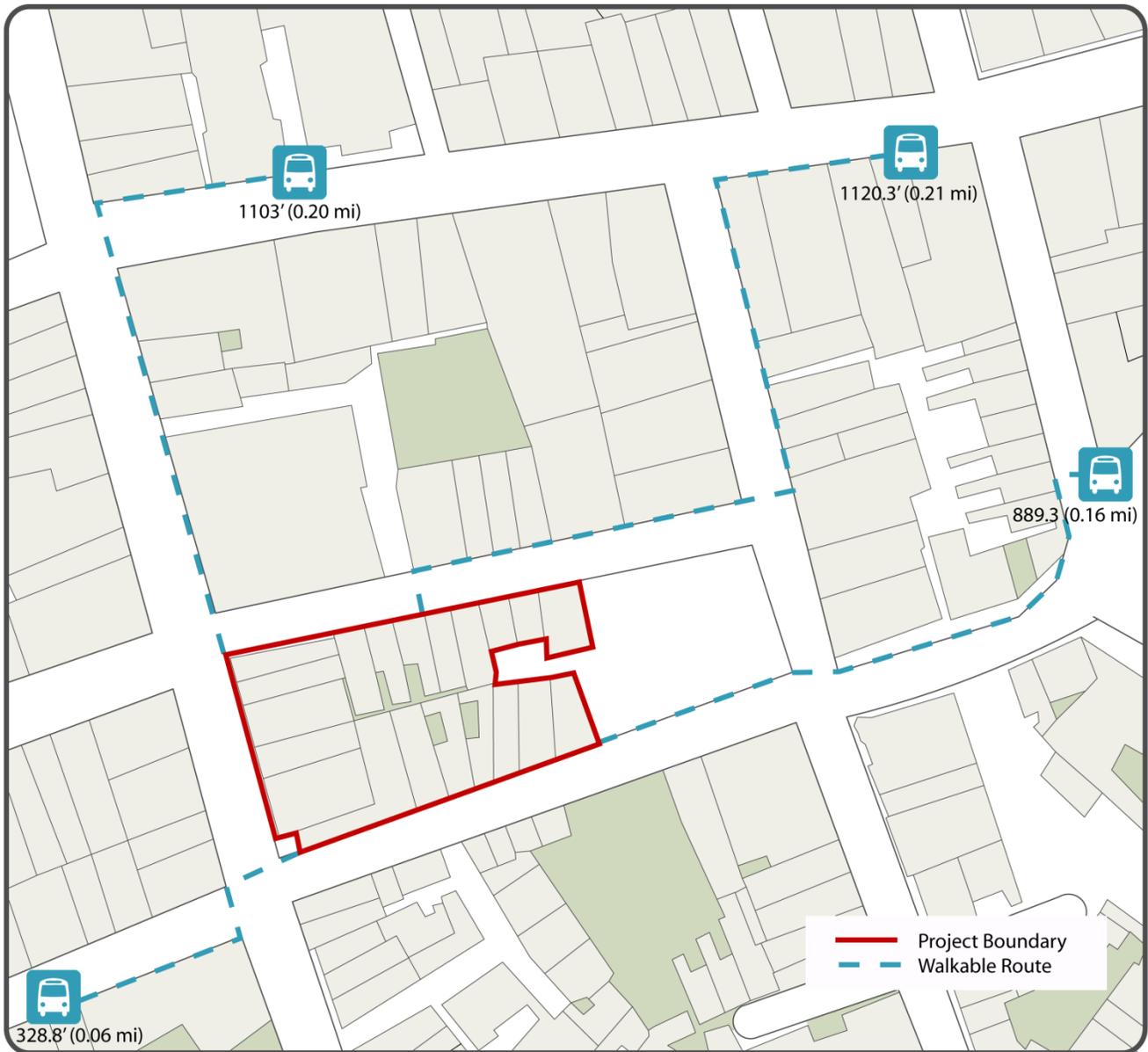
- Conceptual site plan and/or aerial clearly indicating the boundary of the planned area of highest density, the existing or proposed bus stop and the walkable distance route(s).
- Documentation from the relevant transit authority or local government entity verifying secured funding and future placement of the bus stop.
- Inspection by an ECC Technical Advisor.

Example



Above Image: A project’s conceptual site plan shows the walkable distance from the area of highest density of the project to surrounding bus stops. Each walkable distance follows sidewalks and pedestrian crosswalks. This site plan is either placed on an aerial to show off-site uses or an aerial is submitted with the conceptual site plan to verify this credit.

Example



Above Image: This project shows the walkable distance routes from the project boundary to surrounding bus stops. Each walkable route is comprised of sidewalks and pedestrian crosswalks. This site plan is either placed on an aerial to show off-site uses or an aerial is submitted with the conceptual site plan to verify this credit.

SS 10 High Quality Rapid Transit Service

General Proximity - 3 points

Highest Density - 5 points

Purpose

Provide multiple transportation opportunities for residents and visitors.

Criteria

A. General Proximity – 3 points

If not receiving Rail Transportation-Highest Density credit, locate and design the community such that a point along the boundary of the development footprint is within ¼-mile walkable distance of an existing or planned/funded transit stop.

OR

Locate the project in an area in which combined housing and transportation costs are less than 45% of annual household income.

B. Highest Density – 5 points

Locate the area of highest density in the community within ½-mile walkable distance of an existing or planned heavy rail, light rail or bus rapid transit station.

OR

Locate the project in an area in which combined housing and transportation costs are less than 45% of annual household income.

Additional Resources

Center for Neighborhood Technology website: www.htaindex.cnt.org/map

Verification

- Conceptual site plan and/or aerial map clearly indicating the walkable distance route(s) between the development footprint and the location of the bus stop.
- Documentation from the relevant transit authority or local government entity verifying secured funding and future placement of the bus stop.
- Inspection by an ECC Technical Advisor.

OR

- Map obtained from Center for Neighborhood Technology indicating location of project.

SS 13 Community Carpool

1 point

Purpose

Reduce vehicle miles traveled in single-occupancy vehicles.

Criteria

Establish a community carpool program with written management protocol and a designated management entity; either the homeowners' association, property management company, or a similar outside capacity such as a non-profit group or regional transport agency.

Verification

- Copy of management protocol.
- Narrative identifying the management entity.

SS 14 Subsidized Transit Passes

2 points

Purpose

Promote the use of transit as a lifestyle change and community amenity.

Criteria

Subsidize 50% of the cost of a monthly transit pass (or equivalent) for at least 5 years from the date of the first Certificate of Occupancy for the majority of residents. This may be a reimbursement program or rent discount program operated through either the homeowners' association or property management Company. The details of this program can be determined by the project developer.

Verification

- Homeowners' association or property management protocol which clearly outlines the transit subsidy program.
- Documentation of financing structure for the subsidy or credit.

SS 15 Community Operated Transit

3 points

Purpose

Develop community provisions to reduce the number of vehicle miles traveled in single occupancy vehicles.

Criteria

Develop a private community transit system or create a public-private partnership with an "on-call" service that connects the community to a mass transit station or nearby activity center. The system must be funded and mandated to operate for a minimum of five years after build-out.

Private transit should have dedicated pick-up/drop-off location(s) within the community and an established schedule running at appropriate intervals during peak transit hours.

Verification

- Narrative explaining how the private transit system will be established, managed and funded.
- Transportation plan for the project indicating transit stop locations.
- Controlling documentation, such as Covenants, Codes & Restrictions, homeowners' association or property management documents mandating the ongoing funding and operation requirements of the community transit service. Or, if using a private transit company, submit the contract with a private transit firm indicating the long-term management and financing mechanisms of the community transit system.

SS 16 Car Share Account

1 point

Purpose

Develop community provisions intended to reduce the number of necessary daily trips.

Criteria

Create parking spaces and establish a car share account with a licensed car share company (such as Zip Car or Flex Car) to provide car share opportunities for community member use.

The account may be established at any time during build-out, depending on the requirements of the car share company, and must be funded to operate for a minimum of one year after ownership is turned over to the homeowners' association or other management entity.

Verification

- Conceptual site plan clearly indicating parking spaces intended for car share program.
- Documentation of account with the car share company.
- Funding verification to operate the account for a minimum of one year after ownership is transferred to a homeowners' association or management entity.

SS 17 Community Bike Rental

1 point

Purpose

Reduce air pollution and vehicle miles traveled while encouraging physical activity and resident health.

Criteria

Establish community bike rental program accessible to all residents in the project and dedicate bike racks for community member and/or public use. The rental program may be managed by the Home Owners Association, Property Management Company or a third-party entity.

Verification

- Narrative indicating how the bike rental program will be established. Include a description of how it will be financed and managed.
- Inspection by an ECC Technical Advisor.

Water Management

WM 0.1 Erosion & Sedimentation Control

Requirement

Purpose

Reduce water pollution from land-disturbing activities.

Criteria

Create an erosion and sedimentation control plan consistent with best management practices from state or local standards, whichever are more stringent.

In this plan, address impaired watershed management requirements that are identified in the 305(B)/303(D) Impaired Streams Segment document or local comprehensive plans.

AND

Follow local or state turbidity testing requirements, procedures and allowable NTU or TSS levels. If the project does not have local turbidity testing requirements, adhere to requirements used elsewhere in the same watershed.

AND

Hold erosion and sedimentation meeting between the developer, developer representative, contractor, site planner, engineer and erosion and sedimentation inspector before finalizing site plan.

AND

Designate personnel responsible for responding to erosion and sedimentation control failures or negative site reports filed by an ECC TA.

A TA may request turbidity tests at any time. If test records indicate levels exceeding what is locally allowable, project personnel and contractor are responsible for adjusting best management practices to meet established performance targets.

If turbidity tests exceed allowable levels for two consecutive storm events, the project will be required to host a mandatory meeting between site contractor, turbidity testing agency and project manager to determine necessary changes for compliance. Documentation of the meeting must be submitted to ECC Administrators.

If turbidity tests exceed allowable levels for a third consecutive storm event, the project will be ineligible for certification.

Water Management♦ WM 0.1 Erosion & Sedimentation Control

Verification

- Erosion and sedimentation control plan for each phase of development. Plan should include the allowable Total Suspended Solids or NTU levels, turbidity testing requirements, the project's planned strategies for turbidity testing and the name of the environmental firm responsible for turbidity testing.
- Electronic link (in the narrative box of the worksheet) or electronic copy of the state or local Erosion and Sedimentation Manual.
- Narrative describing the preliminary erosion and sedimentation meeting, including team members in attendance, location and date.
- Provide name(s) and phone number(s) for personnel responsible for erosion and sedimentation control performance on site.
- Provide the name and telephone number for the agency responsible for erosion and sedimentation control inspections.
- Inspection by an ECC Technical Advisor.

WM 0.2 Stormwater Management

Requirement

Purpose

Maintain the natural hydrologic cycle, prevent an increased risk of flooding, prevent undesirable stream erosion and protect water quality.

Criteria

Design a stormwater management plan which:

- Minimizes the use of detention
- Integrates native and adaptive landscaping into the design
- Utilizes low impact development best management practices referenced from any of the following:
 - 2016 Georgia Stormwater Management Manual
 - Coastal Supplement to the Georgia Stormwater Management Manual
 - Virginia Stormwater Management Manual

AND

Specify the labeling of all stormwater inlets, indicating its connection to streams and rivers within the watershed.

AND

The plan must address:

1. Peak discharge control
2. Downstream impact (peak flow analysis)
3. Treatment of runoff
4. Infiltration and the capture / reuse of water on-site as necessary
5. Water quality

Additional Resources

For additional information about Low Impact Development Best Management Practices:

- <https://atlantaregional.org/natural-resources/water/georgia-stormwater-management-manual/>
- <http://www.northinlet.sc.edu/lid/>
- <https://deq.nc.gov/sw-bmp-manual>

Verification

- Narrative addressing how each element in this requirement is addressed in the stormwater management plan.
- Submit a site plan clearly indicating type and location of LID BMPs used.
- Submit BMP details indicating design compliance with the 2016 Georgia Stormwater Management Manual.
- Submit Georgia Stormwater Management Manual's Site Development Review Tool (.xlsx)
- Copy of the property management documents for proper maintenance of installed BMPs.
- Inspection by an ECC Technical Advisor.

WM 0.3 Appropriate Wastewater Treatment

Requirement

Purpose

Protect groundwater from contamination and replenish local water resources.

Criteria

Connect to an existing public wastewater conveyance system whenever available.

OR

Locate the project within a legally-adopted, publicly-owned, planned wastewater service area.

OR

If public wastewater infrastructure is not available and the project is in compliance with regional comprehensive plans, design and construct an alternative wastewater treatment system that meets or exceeds 120% of initial approved and calculated discharge rates for the entire development. Systems should consider the watershed status, site topography, soil types, percolation rates, etc.

Appropriate technologies include, or are a combination of:

- Community package plants
- Constructed wetlands
- Mechanical re-circulating sand filters
- Anaerobic biological treatment facilities

Note: Individual septic tanks are not allowed.

For projects creating an on-site system:

- All systems must follow protocol for on-going monitoring and maintenance as outlined in the "Handbook for Managing On-site and Clustered (Decentralized) Wastewater Treatment Systems" (EPA 832-B-05-001) Published: 2005.
http://cfpub.epa.gov/owm/septic/septic.cfm?page_id=289
- Create an ongoing funding source and protocol for third-party system maintenance OR dedicate system maintenance requirements to the local jurisdiction.

Verification

- Submit letter of availability from municipality or utility provider.
- If constructing an alternative system on site, submit:
 - Narrative describing the planned alternative wastewater treatment system.
 - Wastewater infrastructure plan.

AND

- Evidence of a contract with a qualified maintenance company.
- Verification of funding.

OR

- Evidence of municipal dedication or maintenance agreement.
- ECC Technical Advisor will inspect project for general consistency using the wastewater infrastructure plan.

WM 0.4 Common Area Water Conservation

Requirement

Purpose

Conserve potable water resources.

Criteria

Design provisions requiring all new common-area landscaping within the property boundary line to use 50% less potable water than mid-summer baseline conditions.

Areas with no new landscaping automatically meet this requirement.

Strategies to attain this requirement include:

- Reduction of turf areas
- Specification of appropriate turf species
- Landscaping with drought-tolerant species
- Use of bioswales and rain gardens
- Use of efficient irrigation systems
- Use of irrigation controllers
- Mulch landscaped areas to retain soil moisture
- Irrigate with rainwater, treated wastewater (publicly conveyed or sourced on site), air conditioning condensate, stormwater or foundation drainage

Well water and onsite streams are not acceptable sources for landscape irrigation.

Temporary potable water irrigation systems are allowed during a 12-month establishment period.

Exemptions

Any edible streetscapes, community gardens, working farms or other landscaped areas used for food production.

Verification

- Calculation of the baseline and the design case to show reduction percentage.
- Landscape plan showing the planting schedule and irrigation system.
- Controlling documents, such as land lease referencing design guidelines, deed restrictions or regulating plan.
- Inspection by an ECC Technical Advisor to ensure irrigation installation is non-potable sourced or temporary.

WM 0.5 Protect Steep Slopes

Mountain, Ridge and Valley, Plateau, Piedmont: 4 points
Southeastern Plains: 1 point
Coastal: Requirement

Purpose

Protect existing topography and water bodies from sedimentation.

Criteria

Limit mass grading to expose the smallest practical area of soil and accept as much of the existing topography of the area as possible. Ensure that grading operations do not contribute to soil settlement or soil creep, flooding, erosion, or increased turbidity. Stabilize disturbed areas immediately after the initiation of grading, using approved erosion and sedimentation BMPs.

AND EITHER

Select a site that contains no critical slope areas.

OR

Piedmont & Coastal

Design and preserve a 75-foot buffer (measured perpendicularly from the strike of the slope) around a minimum of 75% of the critical slope areas on site.

Mountain

Design and preserve a 75-foot buffer (measured perpendicularly from the toe of the slope) around a minimum of 50% of the critical slope areas on site.

Verification

- Grading and layout plan clearly indicating all critical slope areas and 75-foot buffers with appropriate protection fencing.
- Calculation indicating:
 - The total acreage of the site with critical slope areas.
 - The total acreage of critical slope areas that will be protected from construction activity.
- Inspection by an ECC Technical Advisor.

WM 1 Mulch On-site

2 points

Purpose

Reduce emissions from material hauling, reduce contributions to the waste stream and landfills, and keep organic nutrients on site as soil inputs.

Criteria

Supplement other erosion and sedimentation control measures by grinding and reusing organic materials from site-clearing and/or construction framing materials. Treated lumber should not be ground and reused. All grinding of material should be done on site and material used on site.

Verification

- Erosion and sedimentation control plans that clearly specify on-site grinding and use of organic materials.
- Inspection by an ECC Technical Advisor.

WM 2 Construction Phasing

2 points

Purpose

Minimize ecological disturbance caused by mass grading and protect groundwater from sedimentation or siltation caused by construction site runoff.

Criteria

Begin construction of buildings and infrastructure within six (6) months of any disturbance of vegetated areas.

Verification

- Grading plan clearly indicating phased development.
- Inspection by an ECC Technical Advisor.

WM 3 Advanced Stormwater Quality

90% = 2 points
 95% = 3 points
 Previously Developed Bonus = 2 points

Purpose

Maintain the natural hydrologic cycle and protect water quality.

Criteria

Using regional or locally-calculated rainfall data to determine volume, treat the runoff from a percentage of the storms that occur in an average year:

Percentage of Storms	Points
90% or greater (1.5")* <i>Eligible in Mountain/Piedmont/Coastal Plain</i>	2
95% or greater (1.9") <i>Eligible in Mountain/Piedmont/Coastal Plain/Coastal</i>	3
Previously Developed Site**	2

*Sites located in coastal overlays (i.e. GA Coastal Supplement or equivalent in other states) are not eligible for the 90% (1.5") because this design criteria is a current requirement of the GA Coastal Supplement (or other state equivalent).

** Projects located on a previously developed site attaining either category above (90/95%) receive an additional 2 points. This bonus credit is not awarded for previously developed sites that do not reach one of these treatment categories.

Verification

- Stormwater management plan.
- Verification letter from the project’s civil engineer indicating that the stormwater management plan is designed to achieve the above percentages for stormwater quality.

WM 4 Enhanced Turbidity Monitoring & Performance

3 points

Purpose

Protect surface waters from sedimentation or siltation caused by construction site runoff.

Criteria

Design, install and maintain erosion and sedimentation best management practices to ensure a runoff turbidity level of no more than 25 Nephelometric Turbidity Units (NTUs) during the 25-year, 24-hour storm and smaller.

Contract with a third party to measure the turbidity level of site runoff after all storm events resulting in a rainfall volume of 85% or more. Adjust best management practices as needed to meet the performance target during the next storm event.

To qualify for this point, turbidity levels cannot exceed 25 NTUs in more than two consecutive measured storm events.

Verification

- Name of the firm responsible for turbidity testing.
- Inspection by an ECC Technical Advisor.
- All turbidity tests requested by the ECC Technical Advisor. The A TA may request most recent test results at any stage during the certification process and construction activity.

WM 5 Common Area Water Conservation

75% - 3 points

Eliminate - 5 points

Purpose

Conserve potable water resources.

Criteria

Design or make provisions requiring all new common area landscaping within the property boundary line to use 75% less potable water than mid-summer baseline conditions.

Strategies to attain this point include:

- Reduction of turf areas
- Specification of appropriate turf species
- Landscaping with drought-tolerant species
- Use of bioswales and rain gardens
- Use of efficient irrigation systems
- Use of irrigation controllers
- Mulch landscaped areas to retain soil moisture
- Irrigate with rainwater, treated wastewater (publicly conveyed or sourced on site), air conditioning condensate, stormwater or foundation drainage

Well water and on-site streams are not acceptable sources for landscape irrigation.

Temporary potable water irrigation systems are allowed during a 12-month establishment period.

Exemptions

Any edible streetscapes, community gardens, working farms or other landscaped areas used for food production.

Verification

- Calculation of the baseline and the design case to show reduction percentage.
- Landscape plan showing the planting schedule and irrigation system.
- Inspection by an ECC Technical Advisor.

WM 6 Private Lot Watering Restrictions

5 points

Purpose

Conserve potable water resources and educate residents, employees and visitors about water conservation.

Criteria

Projects receiving the Common Area Water Conservation credit make provisions such that potable water irrigation is not allowed for at least 80% of the private residential lots, or at least 50% (not less than one) non-residential lot; whichever is greater.

AND

Create comprehensive design guidelines, covenants, codes, restrictions, regulating plan or contract documents that prohibit the use of potable water irrigation for private yard or non-residential parcels.

AND

Provide a non-potable source of water for the lots OR create comprehensive design guidelines that require a variety of rainwater capture and efficient landscape design strategies.

Verification

- Narrative describing strategies for eliminating potable water use in private yard irrigation.
- Controlling documents, such as builder contracts.
- Inspection by an ECC Technical Advisor.

WM 7 Alternative Wastewater Treatment – 20%

4 points

Purpose

Protect groundwater from contamination, replenish local water resources and lessen demand on municipal wastewater treatment plants.

Criteria

For projects not using an alternative wastewater treatment system to meet the Appropriate Wastewater Treatment requirement, construct an alternative wastewater treatment system for 20% of initial approved and designed discharge rates for the entire development.

Appropriate wastewater treatment systems include:

- Constructed wetlands
- Mechanical re-circulating sand filters
- Anaerobic biological treatment facilities
- Community package plant

Verification

- Narrative describing the alternative wastewater treatment system.
- Wastewater infrastructure plan.
- Evidence of a contract with a qualified maintenance company.
- Verification of funding.

WM 8 Runoff Volume Reduction

5 points

Purpose

Maintain the natural hydrologic cycle, prevent an increased risk of flooding, prevent undesirable stream erosion and protect water quality.

Criteria

A. Previously Developed Sites

Design site to infiltrate 30% of post development 1-year, 24-hour storm-generated runoff volume across the site.

B. Previously Undeveloped Sites

Design site to infiltrate 50% of post development 1-year, 24-hour storm-generated runoff volume across the site.

Verification

- Stormwater management plans.
- Hydrology study, including infiltration calculations and selected infiltration BMPs.
- Post-construction BMP maintenance schedule for incorporation into community maintenance covenants or other controlling documents.
- This schedule must include anticipated costs of maintenance cycle for inclusion in operational budgets for homeowners' association or other appropriate entities.
- Inspection by an ECC Technical Advisor.

♦ WM 9 Water Conservation – Infrastructure for Building Use

WM 9 Water Conservation – Infrastructure for Building Use

3 points

Purpose

Reduce potable water needs in buildings.

Criteria

Connect to pre-existing public purple pipe/ reclaimed water infrastructure system for non-potable water use in 50% of new building square footage (not less than one building).

OR

If the pre-existing infrastructure does not exist, design and construct a purple-pipe/reclaimed water infrastructure for non-potable water use in at least 30% of new building square footage (not less than one building).

Design and install infrastructure with water catchment system to provide reclaimed water supply to system.

Verification

- Site-specific final utility plans clearly indicating stub outs of alternative infrastructure.
- Calculation of total building water taps/lots on site and total number of building lots provided with alternative water infrastructure.
- Final architectural plans or letter from architect of register clearly indicating the buildings that have been designed and constructed with the alternative infrastructure.

Planning and Design

PD 0.1 Site Analysis Packet

Requirement

Purpose

Identify sustainable opportunities across the community through a detailed analysis of environmental elements. Identifying these elements at the beginning of the design process will improve the prospects for implementation of sustainable measures during the Design Charrette.

Criteria

Perform a detailed site analysis early in the design process using the following tools. The analysis must be completed prior to the Design Charrette and all maps should be 1inch = 60ft scale minimum.

A. Aerial & Description of Land Uses

Aerial photograph should show existing on-site or platted off-site land uses at a minimum of ½-mile from property boundary. This map should be scaled and keyed to describe all existing on-site land uses, including:

- Existing residential land densities, existing structures or impervious surfaces
- Existing Vegetative coverage description
- Unique landscapes or features (for example: stands of mature trees, specific forest types, and dominant landscape species and status - mature, degraded, tree farm, etc.

B. Public Realm delineation and analysis

Analyze how nearby buildings address the public realm. This analyses must at minimum include building heights, forms and setbacks, parking locations, height to width ratios of buildings and streets, and pedestrian accommodations.

C. Walkability Analysis Public Realm delineation and analysis

Utilizing current public infrastructure complete a walkshed inspection by walking from likely primary entryway location of project site to at least 3 nearby amenities. Document with photos or video the difficulties encountered along route and how they will be mitigated (e.g., earning off-site street improvement credits) or avoided on ECC project.

D. Historic, Cultural and Archaeological Resources

Verification that the site does not conflict with areas that local agencies identified as potential historic, cultural or archaeological resources.

E. Topography and Slope Analysis

Topography map should show topography of site at appropriate vertical interval. A slope analysis is an overlay to the topographic map which indicates areas of slope greater than 15%, 20% and 25%.

F. Hydrology Report

Hydrology report following generally-accepted engineering practices, including an analysis of major and minor drainage ways, associated buffers, and existing drainage issues within the basin.

G. Tree Survey

Tree survey should indicate the size and location of all trees (diameter at breast height =6 inches or greater).

H. Vegetative Coverage Survey

This analysis can use the aerial as a base to overlays that identify stands of mature trees (diameter at breast height = 6 inches or greater), specific forest types, dominant existing landscape species and status (mature, degraded, tree farm, etc.), or other unique features of the site such as mountain ridges and valleys. Clearly identify any High Priority Preservation Areas.

I. Soil Series

In the USGS map of soils, highlight highly-erodible soils, hydric soils typically associated with wetlands, or other areas requiring soil remediation.

Sensitive Wildlife Habitat Mapping

Consult with the state Natural Heritage Program or Fish and Wildlife Service (FWS) Division to determine the likelihood of federally-threatened or endangered species existing on the site.

- If it is determined that species are likely to exist on site, hire a qualified biologist to conduct a site analysis and produce a Habitat Conservation Plan per the Endangered Species Act.
- If it is determined that no federally-threatened or endangered species exist on site, hire a qualified biologist, work with a conservation non-governmental organization, or work with a local or state agency to produce a Habitat Map of any additional wildlife habitats found on site. This map should include—at a minimum—locations and descriptions of wildlife habitats on site, any conservation buffers recommended for protection of the habitat on-site and a clearly identification of High Priority Preservation Areas.

Use the Habitat Conservation Plan or Habitat Map produced from this analysis to inform site design.

J. Viewshed Analysis

On an aerial photograph or early conceptual design, indicate major viewsheds *into* the site from adjacent land and public right-of-ways. Provide a brief narrative for each viewshed, describing the quality of that view and how it will change from the existing site to the proposed development. Describe opportunities for minimizing negative viewshed impacts; for example, using higher-quality building materials in the viewshed, enhancing terminating vistas, preserving or restoring buffers, and preserving natural ridgelines in mountain areas.

On an aerial photograph or early conceptual design, indicate major viewsheds out of the site from internal public spaces and roads and describe their positive or negative attributes.

Solar Access Analysis

In addition to the elevation study and slope analysis, identify the percentage of site sloping in each cardinal plane. Southern slopes are ideal for solar access and the design of the buildings and site layout should reflect the orientation of the site's natural slopes.

Prevailing Wind Patterns

Provide a diagram indicating the direction, frequency of occurrence and typical wind speeds affecting the site.

Additional Resources

See the EarthCraft Communities Site Analysis Packet example provided to the project team by the TA.

Verification

- Each site analysis report document. All maps should be 1inch = 60ft scale minimum.

PD 0.2 Design Charrette

Requirement

Purpose

Create more innovative and responsive plans and streamline processes by involving the entire design and construction team in the initial stages of the design process.

Criteria

After the Site Analysis Packet has been completed, organize one (1) full-day (minimum) preliminary site planning charrette or workshop with the developer, construction representative, design team, and relevant local public officials. Invite surrounding landowners of parcels immediately adjacent to the property as necessary and discussed with the ECC Technical Advisor. The design team encompasses any architects, landscape architects, planners or engineers whose participation will impact the site plan.

This integrated design charrette must be facilitated by one of the following individuals with approval from ECC Administrators:

- A construction and design professional holding the National Charrette Institute Certificate. See www.charretteinstitute.org
- A construction and design professional with experience as primary community designer for certified EarthCraft Communities.

Required deliverables from this meeting include:

- Notes and next steps for completing ECC credits and requirements.
- Site development and planning issues with graphics and photos of the site.
- A schedule to continue the integrated design collaboration throughout the entire development process. This should indicate how and when additional collaborative meetings will take place.

Verification

- Narrative that includes the date, time, list of attendees and a report including – at a minimum- deliverables outlined above.

PD 0.3 Density

Requirement

Purpose:

Preserve natural land by concentrating development.

Criteria:

Design a community such that the net density of the project is no less than:

	Residential	Non-residential
Conservation	3 du per acre	.35 FAR
Urban	8 du per acre	.6 FAR

Residential Density

- Total project area - Area of unbuildable land = Total area of buildable land
- Total number of dwelling units ÷ Total area of buildable land for residential uses.

Non-Residential Density

- Total covered square footage on all floors of all non-residential buildings on buildable land available for non-residential uses ÷ Area of buildable land available for non-residential uses.

The units and covered floor area for residential above non-residential structures are applied to each calculation while the acreage and area of buildable land is applied only once to either the residential calculation or non-residential calculation at the discretion of the project.

Verification

- Calculation of Residential and Non Residential Density based on the permitted site plan and final construction documents.

PD 0.4 Bicycle Accommodations

Requirement

Purpose

Create a safe bicycle environment to promote alternative transportation, reduce vehicle miles traveled and promote healthy lifestyles.

Criteria

Install separated bike lanes on all streets with a design speed rating greater than 25 mph.

AND

Total number of provided bike racks should be no less than 2 or 2% of the total number of provided parking spaces within the project boundary, whichever is larger. Each bike rack should accommodate multiple bikes and be located along streetscapes or convenient to building entryways.

Verification

- Permitted site plan with details of bicycle accommodations.
- Signage plan clearly indicating location of street signs.
- Inspection by an ECC Technical Advisor.

PD 0.5 Connectivity

Requirement

Purpose

Promote multiple road connections off-site to improve vehicular ingress and egress and improve pedestrian connections to adjacent uses.

Criteria

No street or pedestrian networks can be gated.

Facilities such as health care campuses, military bases or education facilities may be gated only for safety purposes.

Urban

Design the community for through traffic. Use forms like loop roads and urban grids to their fullest possible extent. Create cul-de-sacs only where natural features need protection. Additionally, optimize non-vehicular network links to surrounding uses.

The project must:

- Connect to the off-site road network
- Provide at least one road stub out to each adjacent undeveloped parcel (with appropriate easement for future road construction)
- Provide a non-vehicular pathway averaging 800 linear feet along the edge of the project’s boundary adjacent to developed parcels AND averaging 2,500 feet along the project boundary adjacent to undeveloped parcels.
- Block lengths must be no greater than 650 feet in length in commercial and mixed-use areas, and 1,200 feet in residential areas.

Conservation

Projects are required to link to or accommodate a future vehicular connection if either of the following conditions exist:

- A project has existing adjacent development

OR

- Regional land use plans allow development at density greater than or equal to one unit in five acres within one mile of the boundary of the site's development footprint, or within ¼-mile of the project boundary

Future connections must be documented with a recorded easement.

The project must:

- Connect to the off-site road network
- Stub out to adjacent undeveloped property (with appropriate easement for future road construction)
- Provide a non-vehicular pathway averaging 800 linear feet along the edge of the project’s developed area (where it abuts the property boundary) AND averaging 2,500 feet along the undeveloped project boundary.

Use design features that Design the community entrance signage to preserve the rural viewshed and enhance the character of the existing community and landscape.

Connections are not required where existing buildings, bodies of water, critical slope areas or other natural areas designated for preservation prohibit through streets.

AND

Design the community to preserve a conservation viewshed along boundary roads by:

- Preserving a 50-foot mixed mature forest buffer
- Enhancing a 50-foot mature hardwood buffer with native evergreen trees and shrubs
- Restoring a 150-foot minimum (300-foot average on sites 100 acres or more) tree buffer
- Providing a 500-foot buffer maintained as pasture or crop field between any external road and the developed area of the site

If a view of the developed area is not possible due to significant grade change, the buffer is not required.

Verification

- Conceptual site plan clearly indicating buffers, road and pedestrian networks, and the distance between each external connection.
- Permitted site plan clearly indicating road and pedestrian networks and easements for future road construction, if required.

PD 0.6 Pedestrian Accommodations

Requirement

Purpose

Promote walkability in the community by creating a complete and safe pedestrian network to reduce vehicle miles traveled, promote healthy lifestyles and heighten community interaction.

Criteria

Build sidewalks along all streets internal to and immediately adjacent to the project boundary. Provide 4-foot (minimum) sidewalks on both sides of residential streets and 8-foot (minimum) sidewalks in mixed-use areas. Provide pedestrian crosswalks at all intersections interior to the project in which one of the intersecting streets is rated over 35 mph. An off-street pathway may qualify as a pedestrian accommodation (instead of on-street sidewalks) if the linear distance of the path is no greater than 120% of the road path linear distance.

AND

Provide benches, pedestrian-scaled lights and trash receptacles at regular intervals.

AND

Provide curb cuts and accessible routes, as defined in the Americans with Disabilities Act Accessibility, for all new pedestrian routes.

OR

Conduct a circulation study that outlines the hierarchy of streets in the project in order to make appropriate recommendations for pedestrian accommodations.

Verification

- Conceptual site plan detailing all design elements outlined within pedestrian accommodations.
- Construction documents, such as a signage plan, landscape plan and/or street lighting/street furniture details.
- Circulation study.
- Inspection by an ECC Technical Advisor.

PD 1 Primary Entryways

1 – 3 points

Purpose

Create a walkable community with vibrant and human-scaled streetscape wherein the presence of the vehicle is minimized and pedestrian activity is encouraged.

Criteria

Design the community such that primary entrances face a street, open space or greenspace.

1. Calculate the total number of primary entrances planned for the project. Note their locations on the building with respect to surrounding land uses. This can be done with conceptual site plans and schematic building designs.
Note: Service doors and garages are not considered primary entrances.
2. Adjust the location of parking, openspace and streets and amend the building façade treatments as needed such that more primary entrances face a street, open space or greenspace.
3. Re-calculate the number of primary entryways planned for the project. Calculate the percentage of primary entryways properly located vs. the total number of primary entryways.

Percentage of primary entryways facing public spaces	Points
60%	1
70%	2
80%	3

Verification

- Conceptual plans clearly indicating entryways considered primary by the project and all other entryways planned for the project.
- Design guidelines or regulating plan.
- Calculation of number of primary entryways onto a public space vs. total primary entryways based on the final construction documents.

PD 2 Minimize Building Setbacks

60% – 2 points
70% – 3 points
80% – 4 points
90% – 5 points

Purpose

Create a walkable community with vibrant and human-scaled streetscape wherein the presence of the vehicle is minimized and pedestrian activity is encouraged.

Criteria

Design community such that a percentage of the total building frontage length (of new and existing buildings) is no more than 25 feet from the street or public right of way or the building fronts directly onto public open space or greenspace. Building frontage is measured in linear feet. Set back is measured from building façade to back of curb.

No more than 25% of the building frontage (the frontage that is within 25 foot setback) may contain off-street parking or vehicular entryways.

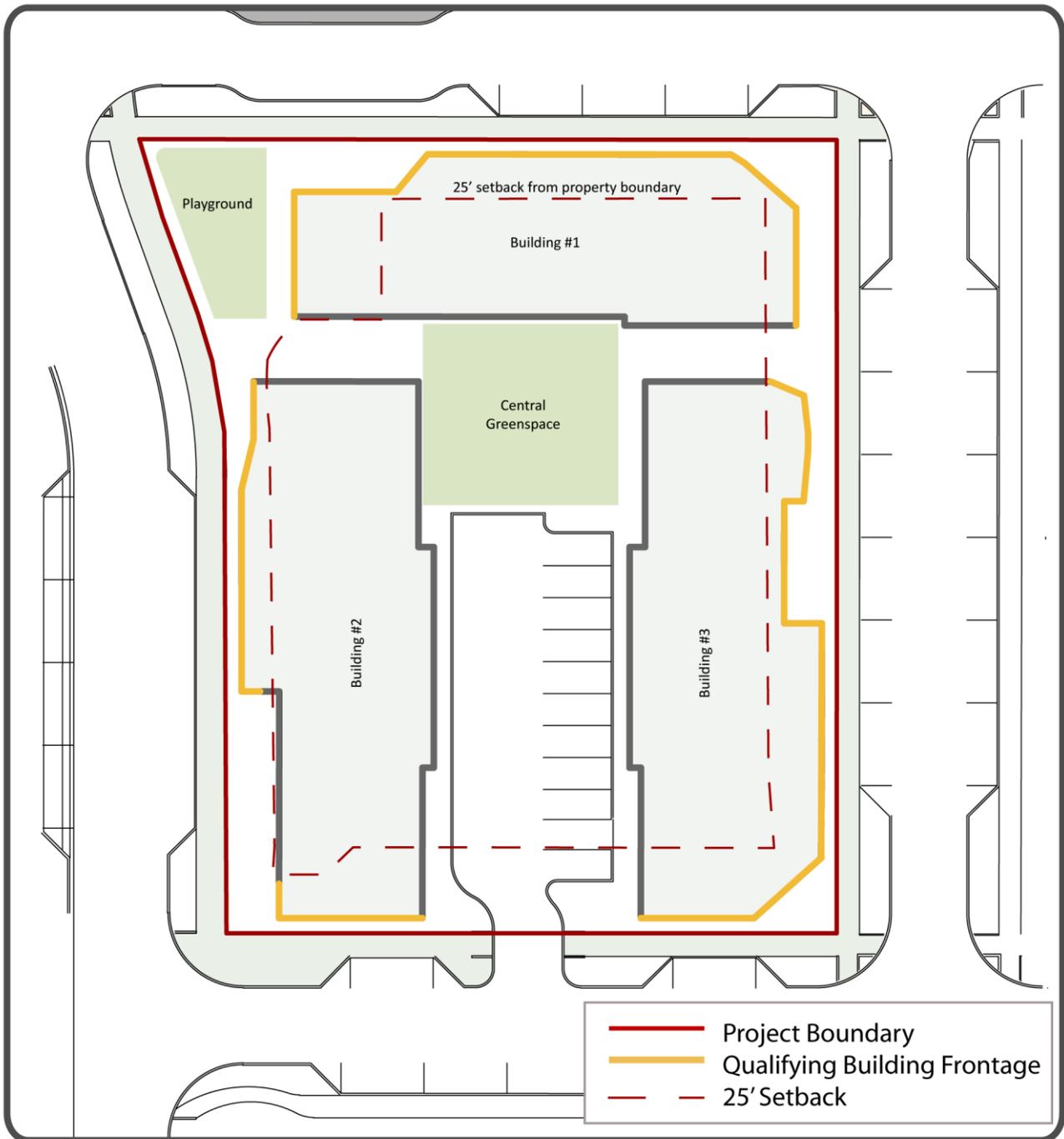
Percentage of Building Frontage within 25 ft setback	Points
60%	2
70%	3
80%	4
90%	5

Verification

- Permitted site plan indicating the setbacks from the street or public right of way for each building.
- Calculation indicating:
 - Total linear feet of building frontage in the project
 - Linear feet of building frontage within 25-ft of street or public right of way.

Planning and Design ♦ PD 2 Minimize Building Setbacks

Example



Above Image: Frontage within the setback is highlighted yellow and adds up to linear footage sum of 434.6'. The total building frontage length is 570.3' thus over 70% of the total building frontage length is within the 25' setback. Building #1 is adjacent to a playground which qualifies as ECC open space so that portion of the building frontage qualifies for this credit calculation regardless of how far from the street or right of way the building begins.

PD 3 Solar Orientation

3 – 5 points

Purpose

Promote the proper orientation of building lots to allow for passive solar orientation on new residential and commercial buildings.

Criteria

Design the street network such that a percentage of lots have the potential for either passive solar building design or active solar energy installation.

- Narrow, deep lots should be oriented along north/south streets such that the wider side of the lot receives greater southern exposure.
- Wide shallow lots should be oriented along east/west streets such that the wider side of the lot receives greater southern exposure.

AND

Create an overlay which identifies the buildable area of each lot and identifies whether the lot qualifies for solar orientation or not. Buildable areas must be longer along a plane no greater than 15 degrees from the east/west axis than the north/south axis.

Qualifying Lots

100% of buildable area receives full sun at noon on the winter solstice (December 21st).

No more than 50% of buildable area is shaded at 9:00AM and 3:00PM on the summer solstice (June 21st).

Percentage of qualifying lots:

Percentage of Qualifying Lots	Points
50%	3
75%	4
100%	5

Verification

- Diagram of lots clearly indicating buildable area location and size and their status as a qualifying lot.

PD 4 Recreational Paths

1 point

Purpose

Promote healthy lifestyles by introducing more recreational options, reducing vehicle miles traveled, and increasing internal and external connectivity options.

Criteria

Construct a network of off-street multiuse paths.

Where off-site paths exist or are planned near the property boundary of the development, make connections. This can take the form of an on-street signed and striped bike path if no alternative routes through the developed area can be determined.

Verification

- Conceptual site plan identifying recreation paths and their stub outs to connect to off-street multiuse paths.
- Approved site plan identifying recreation paths.
- Inspection by an ECC Technical Advisor.

PD 5 Universal Design

3 points

Purpose:

Design a community that can be accessed by all people.

Criteria:

Implement at least two of the following:

- 1) Provide audible signals where visual signals exist at crosswalks
- 2) Design and/or retrofit 100% of property is reachable by ADA compliant route.
- 3) Designate at least 20% of each residential dwelling unit category to certify as an **Easy Living Home**, or a similar standard designed for universal access. (For example, two-bedroom units in multi-unit building, three-bedroom units in a multi-unit building, and two-bedroom detached units are distinct categories.)

Easy Living Certification or equivalent to include the following standards:

1. Easy Access: A step-free entrance into the central living area of the home from a driveway, sidewalk or firm route into the main floor.
2. Easy Passage: The exterior door that provides the step-free entrance and all interior doorways provide easy passage, with a 2'10" or 3'0" door or other solution that allows a minimum of 32" clear passage.
3. Easy Use: A bedroom, kitchen, entertainment area and a full bathroom with designated maneuvering space of 30" x 48" rectangle in front of the sink, commode and tub or shower, all located on the main floor accessible via the step-free entrance.

Additional resources:

Easy Living Home: <http://www.easylivinghome.org/>

Verification

- Construction documents, such as street details and transportation plans, clearly identifying the location and specification of universal accommodations, such as audible signals and ramps.
- Design guidelines or regulating plan directing the design of dwelling units; or architectural drawings of the universal units or letter from the architect of register confirming the units are designed to for universal access (Easy Living Certification or equivalent).
- Inspection by an ECC Technical Advisor.

PD 6 Enhanced Bicycle Accommodations

3 points

Purpose

Provide a safe, alternative transit route through bike lane provisions.

Criteria

For projects containing roads rated 35 mph or greater:

- Provide physically separated bike lane(s) for each direction of traffic flow, or provide an equally-convenient bike lane design connecting development nodes within the development and stubbing out lanes to the outside of development. Wherein direct passage to a development node warrants, lanes can connect to off-street multi-use network.
- Bike lanes should be no less than five feet in width and must follow guidelines set forth by the American Association of State Highway and Transportation Officials (AASHTO).
- When bike lanes exist immediately adjacent to the property the development must connect new bike lanes to existing.

OR

For projects with no internal roads rated 35 mph or greater:

- Provide covered bicycle racks no more than 150 feet from all primary building entrances.

Verification

- Conceptual site plan identifying the location of bike lanes and/ or bike provisions.
- Regulating plan, design guidelines or other suitable instruments.
- Inspection by an ECC Technical Advisor.

PD 7 Traffic Calming

3 points

Purpose

Reduce motor vehicle congestion and create a pedestrian-friendly community.

Criteria

All new residential, mixed-use and non-residential streets that are internal or immediately adjacent to the project should be designed for speeds no greater than:

- Arterials: 35 mph
- Primary: 25 mph
- Secondary: 15 mph

Qualifying traffic-calming strategies include:

- Roundabouts
- Alternative pavement
- Bulb-outs, neckdowns
- Pinch points
- Chicanes
- On-street parking (parallel or diagonal)
- Median islands
- Reduction in lane width
- Reduction in turning radius allowed at intersections

Structural impediments which might prohibit safe access for emergency vehicles are discouraged.

Any strategy used must also make provisions to accommodate bicycle access.

Additional Resources

- <https://globaldesigningcities.org/publication/global-street-design-guide/designing-streets-people/designing-for-motorists/traffic-calming-strategies/>
- <https://www.pps.org/article/livememtraffic>

Verification

- Conceptual site plan identifying the location of traffic calming measures.
- Construction documents, including relevant design specifications.

PD 8 Off-Site Street Improvements

2 points

Purpose

Promote pedestrian and bicycle access to surrounding neighborhoods by improving safety along existing road networks bordering the community.

Criteria

Work with surrounding landowners and the local municipalities to fund, design and/or install features that improve non-vehicular transit networks outside the project boundary. Strategies towards this credit cannot duplicate other ECC credits or requirements.

Qualifying traffic-calming strategies include:

- Roundabouts
- Bulb-outs
- Curb extensions
- On-street parking (parallel and diagonal)
- Median islands
- Sidewalk improvements
- Enhanced streetscape improvements, such as:
 - Pedestrian crossings
 - Signalization
 - Street tree installation
- Work with surrounding community to design a pedestrian and/or bicycle circulation plan.

Verification

- Narrative describing the partners, planned improvements, timeline, and project's role and responsibilities.
- Documentation of financing structure. This can be explained in the narrative or additional reports submitted as needed.
- Inspection by an ECC Technical Advisor.

PD 9 Street Trees

3 points

Purpose

Reduce heat island effect by creating shade over pedestrian routes and paved surfaces.

Criteria

Plant or preserve overstory and mid-story trees at an average interval of no more than 40 feet on center along 75% of new or existing streets internal to and immediately adjacent to the project boundary.

Trees should be planted on both sides of internal streets and on the project side of adjacent streets. For sites with no internal streets, 50% of on-site hardscapes must be shaded.

Overstory and mid-story trees are suitable for use as shade trees due to their height and size of canopy at maturity. Some overstory trees may not be suitable for use in confined paved areas due to the volume required for their surface roots.

Verify mature height, spread and cold and heat tolerance for appropriateness for final geographic site conditions and location before planting.

Examples of overstory trees native to the southeastern United States recommended for urban conditions include:

- American Elm (*Ulmus americana*)
- Northern Red Oak (*Quercus rubra*)
- Sweetgum (*Liquidambar styraciflua*)
- Pin Oak (*Quercus palustris*)
- Blackgum (*Nyssa sylvatica*).



Northern Red Oak

<http://www.pottstowntrees.org/H2-Best-street-trees.html>

Examples of mid-story trees native to the southeastern United States recommended for urban conditions include:

- Overcup Oak (*Quercus lyrata*)
- Eastern Redcedar (*Juniperus virginiana*)
- American Yellowwood (*Cladastris kentukea*)

Planning and Design♦ PD 9 Street Trees

- Southern Magnolia (*Magnolia Grandiflora*, certain varieties)
- American Hophornbeam (*Ostrya virginiana*)

For more information and tree types:

<https://www.state.sc.us/forest/urbsq04.htm>

<https://www.atlantaga.gov/Home/ShowDocument?id=7417>

OR

Work with a registered landscape architect to provide a shade calculation indicating that at least 50% of sidewalks and on-site hardscapes will be shaded by trees or other structures at noon on the summer solstice (June 21st). Tree shade should be calculated by estimating the sun's crown diameter approximately 10 years from the day of tree installation.

To qualify, trees cannot be listed on USDA or state agency lists as invasive species.

Work with a registered landscape architect to establish a planting plan, planting strips and/or tree wells with appropriate widths, soil remediation, and soil compaction mitigation.

Verification

- Landscaping plan clearly indicating tree wells or strip dimensions, tree specifications, and street lengths.
- Letter from the project's landscape architect indicating that the requirements of the credit have been achieved.
- Inspection by an ECC Technical Advisor.

PD 10 Density

3 – 5 points

Purpose

Preserve natural lands by concentrating development.

Criteria

Design a community such that the net density of the project is:

	Residential	Non-residential	Points
Conservation	5 du per acre	.5 FAR	3
	8 du per acre	.6 FAR	5
Urban	10 du per acre	.8 FAR	3
	13 du per acre	1.2 FAR	5

Verification

- Calculation of Residential and Non Residential Density based on the permitted site plan and final construction documents.

PD 11 Mixed Use

1 – 20 points

Purpose

Promote a walkable neighborhood with links to a mix of goods and services.

Criteria

Locate the area of highest density (residential) within a ¼-mile walkable distance of non-residential uses listed below by providing the uses on site and/or designing the community near off-site uses.

Or

Determine the Walk Score of the area of highest density. Walk Scores of greater than 30 will achieve the following points:

Walk Score	Points
30-40	7
41-50	11
51-60	12
61-70	13
71-80	14
81-90	15
91-98	16
98-100	17

Off-site mixes uses

If multiple facilities provide the same use, the use can only be counted once.

Different uses in subdivided commercial space with distinct leases or ownership will be counted as different uses.

On-site mixed uses

Credit for distinct uses from the list below may be gained if on-site building use is specified in a signed lease. Otherwise, for every 5,000 ft² of on-site non-residential space, the project is awarded 1 point. Non-residential square footage is determined by the square footage of the building site pad and permitted site plans.

Qualifying Uses	Points
Grocery Store	2
School	2
Adult/ Senior Care Facility	1
Membership gym / YMCA	2
Public Recreational Facility (i.e.: pool, softball park, etc)	2
Cultural Facility (museum or performing arts center)	1
Library	2
Fire Station	2
Police Station	2

Planning and Design ♦ PD 11 Mixed Use

Retail	1
Office	1
Hair Care	1
Hotel	1
Community/ Recreation Center	2
Restaurant	1
Full Service Bank	1
Laundry	1
Clothing or Department Store	1
Convenience Store	1
Hardware Store	1
Post Office	2
Medical Clinic	1
Place of worship	1
Theater	1
Social Services	1
Pharmacy	1
5,000 ft ² of On-site Commercial Space	1

Verification

- For projects seeking credit for off-site mixed uses:
 - Provide conceptual site plan indicating the proposed area of highest residential density.
 - Inspection by an ECC Technical Advisor.
- For projects seeking credit for mixed uses on site:
 - Provide conceptual site plan indicating the proposed area of highest residential density and the location and square footages of all planned on-site non-residential uses.
 - Provide controlling documents such as a signed lease agreement for distinct use credit.
 - Inspection by an ECC Technical Advisor.

PD 12 Mixed Income Community

1 – 10 points

Purpose

Create a community with a variety of housing options for people with different income levels by developing a diversity of options within the project boundaries and promoting different options than already available in the surrounding neighborhood.

Criteria

1. On-site Income Diversity

Design the EarthCraft community to incorporate a diversity of housing price points by achieving as many Family Income Categories as possible in the chart below.

To achieve a Family Income Category, at least 5% of the total residential units provided by the project must be represented in the Family Income Category.

Family Income Categories (Price Points)

0-60% of area median income
61-80% of area median income
81-100% of area median income
101-120% of area median income
Over 200% of area median income
Supply rental housing comprising at least 5% of all dwelling units and secure these rental prices for a 10-year period OR control rent through an accepted/ECC approved affordable housing mechanism
Accept Section 8 vouchers for non-project based rental units

Point Awards for Categories

Number of Categories Achieved within Development Boundaries	Points
2	1
3	2
4	3
5	4
6	5
7	6

2. Off-site Income Diversity

Planning and Design ♦ PD 12 Mixed Income Community

Design the EarthCraft community to incorporate a diversity of housing price points that are not already available in surrounding neighborhood. The surrounding neighborhood is identified as the ¼ mile radius surrounding the boundaries of the EarthCraft development.

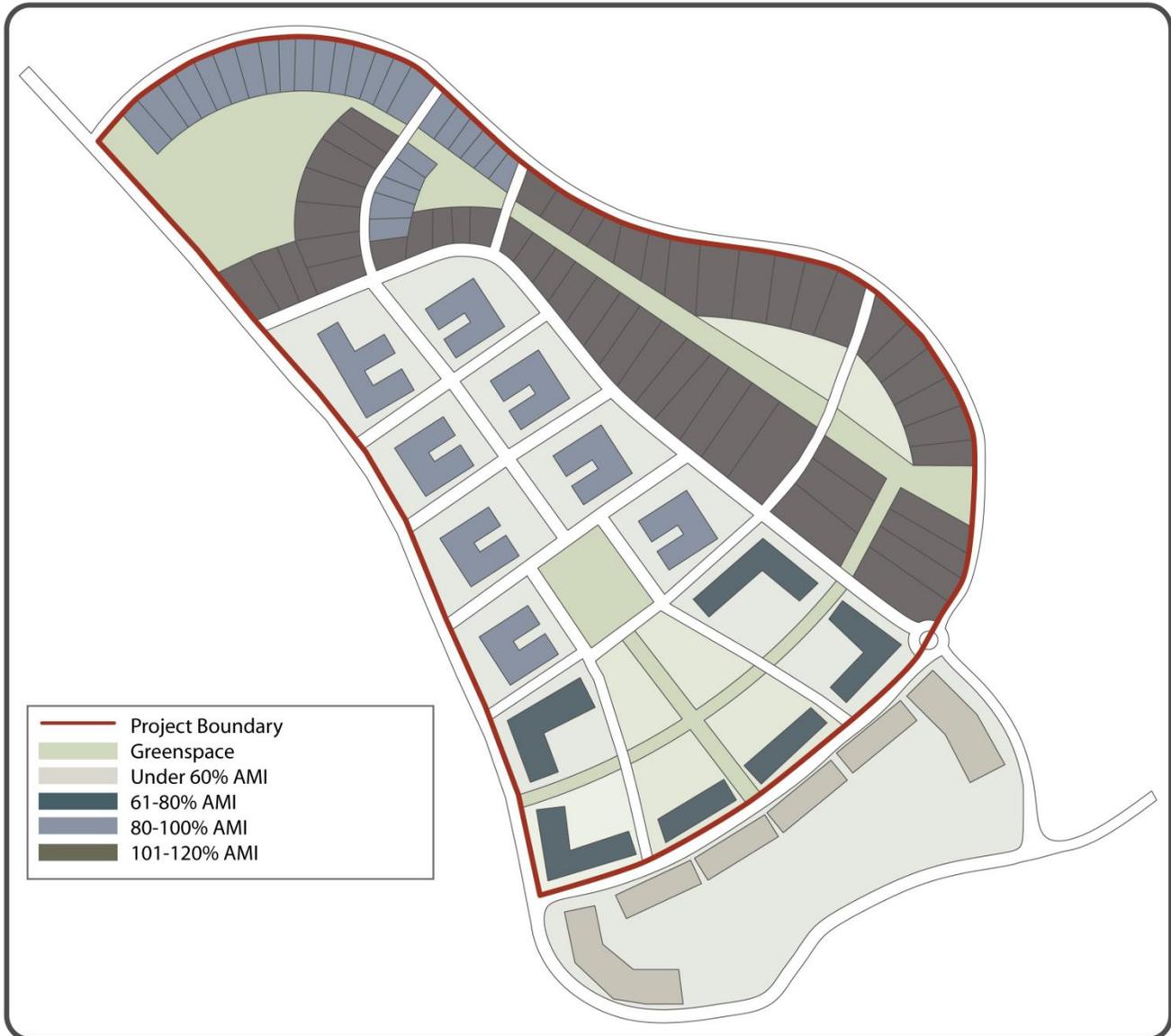
To achieve a Family Income Category, at least 5% of the total residential units provided by the project must be represented in the Family Income Category.

Number of Categories built different than in surrounding neighborhood	Points
2	1
4	2

Verification

- Documentation of the price points of surrounding units and their correlative area median income (AMI)
- Documentation of price points of units in the project and their correlative area median income (AMI). Price points within the project are based on final build out numbers or a controlling instruments

Example



The community above achieves 3 points for Mixed Income Community.

Step 1: Determine Home Price and Rental Affordability Metrics

- Reference the state low income housing tax credit program for Area Median Income, mortgage calculator and rental rate data to identify housing price points which are affordable for each of the Family Income Categories.
- When determining the affordability of a mortgage, the following rules should be applied to your calculation:
 - Identify the AMI of the local area and determine the AMI at the family income categories
 - Identify home prices within ¼ mile radius of the project boundary
 - Assume 1% yearly tax rate on the home's value, based on tax assessor data
 - Assume the family will spend up to 30% of annual income on a home mortgage
 - Assume a 30 year loan at the FHA minimum of 3.5% down payment
 - Determine the 5 year average of mortgage interest rates (fixed)
 - Mortgage insurance, home insurance, and utilities do not need to be added to the expected monthly housing payment

Step 2: Determine Price Points On-site and Off-site

- Research how many Family Income Categories are achieved by the price points provided within the projects boundaries. Units must be integrated, connected and interspersed throughout the project to qualify.

Planning and Design♦ PD 12 Mixed Income Community

- Research the price points of existing housing units within a ¼ mile radius of the project boundary and categorize them based on the Family Income Categories in the chart below. Any part of the legal parcel captured by the ¼-mile radius qualifies the units on that parcel for inclusion in this calculation.
- Use the price points identified within the ¼ mile to determine what housing price points developed on site are different from those already available in the surrounding neighborhood.

Step 3: Calculating your points

- The intent of this calculation is to determine the housing price points provided within the EarthCraft Community boundaries. Calculate how many points the project receives according to the charts below.
- Projects may achieve points for any category that is provided on site even if the housing price point is already available in the surrounding neighborhood.
- Projects can earn bonus points for providing at least two price points on site which are different from price points found in the surrounding neighborhood.
- You do not achieve credit for a category if the housing price point solely exists in the neighborhood surrounding your site.

PD 14 Housing Type Diversity

1 – 12 points

Purpose

Create a community with a diversity of housing opportunities to create housing choices that can attract and maintain residents in different stages of their lives.

Criteria

1. On-site Housing Diversity

Design the EarthCraft Community to incorporate a diversity of housing types by achieving as many Housing Diversity Categories as possible in the chart below.

To calculate, use a net density; which allows projects to net out ECC recognized greenspace and openspace on site; to determine whether off-site greenspace or openspace can be netted out; consult the EarthCraft Communities TA for the project. The project can attribute open space and greenspace to any Housing Diversity Category’s net density calculation but may do so only once

Housing Diversity Categories

Accessory dwelling units	<800 ft ²
Single family detached	0-5 DUA
Single family detached	5-12 DUA
Single family detached	12 DUA or more
Single Family attached	8-12 DUA
Single Family attached	12 DUA or more
Multifamily	0-750 ft ² (or 50+ DUA)
Multifamily	750-1300 ft ² (or 24-50 DUA)
Multifamily	1300 ft ² or more (or 12-24 DUA)

Point Awards for Categories

Number of Categories Achieved within Development Boundaries	Points
2	1
3	2
4	3
5	4
6	5
7	6
8	7
9	8

2. Off-site Housing Diversity

Design the EarthCraft Community to incorporate a different housing types than are in the existing surrounding neighborhood. The surrounding neighborhood is identified as the ¼ mile radius surrounding the boundaries of the EarthCraft development. This is achieved by adding housing types within the ECC that are different than the surrounding neighborhood. The Housing Diversity Categories in this credit consider housing type and density combinations.

Number of Categories Achieved different than existing	Points
2 on site are different from the surrounding neighborhood	1
4 on site are different from the surrounding neighborhood	2

Verification

- Permitted site plan clearly indicating housing types and their associated areas as outlined in this criteria.
- Calculation of densities for each housing type.

OR

- Controlling documents limiting the unit size if applicable (i.e., restrictive covenants).
- Preliminary plans of multifamily units or zoning district requirements with density limits.

Example

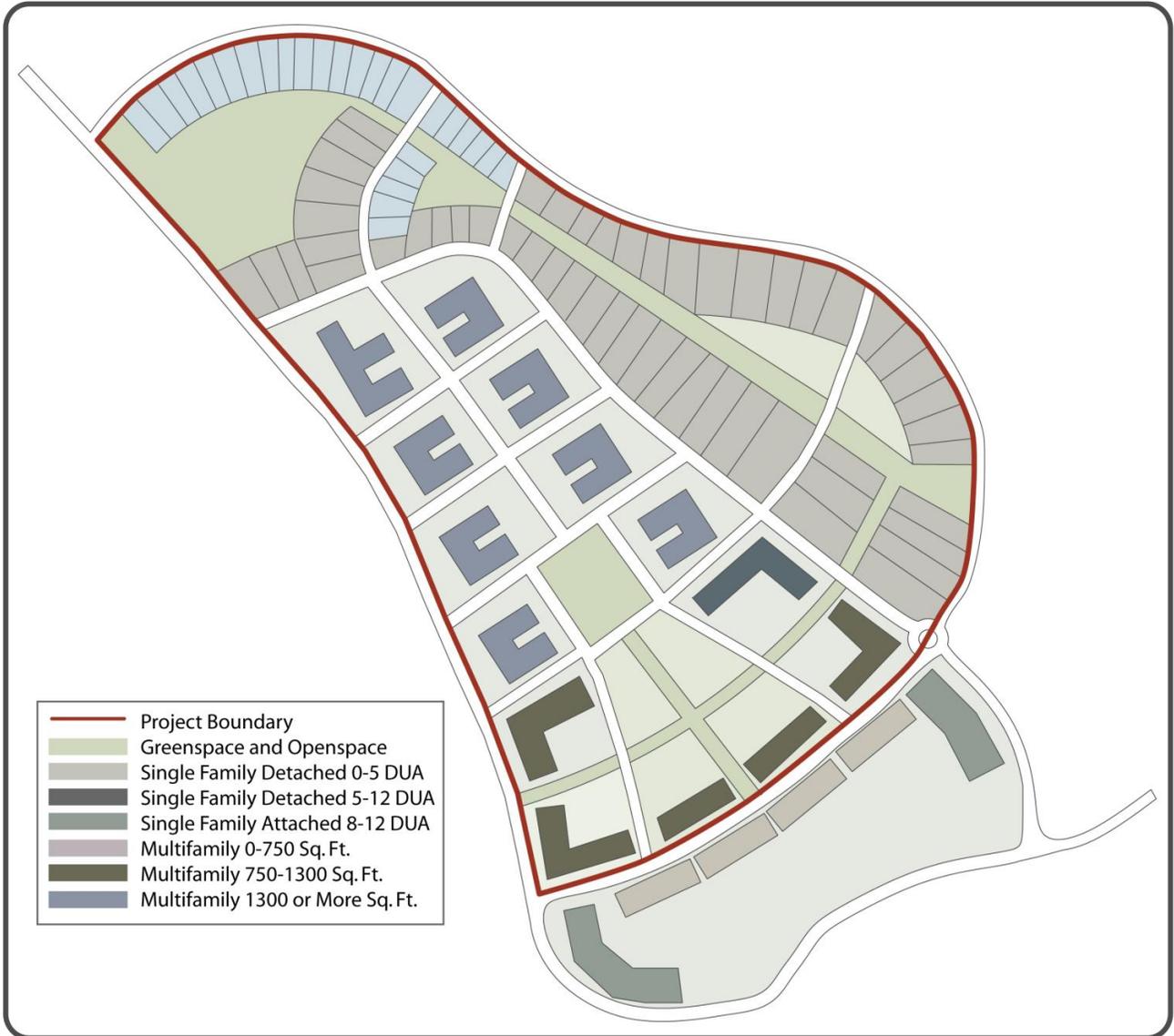
Completing your research

1. Research which Housing Diversity Categories are achieved within the project boundary.
2. Research the surrounding neighborhood within a ¼ mile radius from the project boundary. Use GIS and/or an aerial photo with scale to estimate housing types located off-site.
3. Use the housing types identified within the ¼ mile to determine what housing types developed on site are different from those already available in the surrounding neighborhood.

Calculating your points

1. The intent of this calculation is to determine the housing type diversity provided within the EarthCraft Community. Calculate how many points the project receives according to the charts below.
 - Projects may achieve points for any category that is provided on site even if it is already available in the surrounding neighborhood.
 - Projects can earn bonus points for providing at least two housing types on site which are different from housing types found in the surrounding neighborhood.
 - You do not achieve credit for a category if the housing type solely exists in the neighborhood surrounding your site.

Planning and Design ♦ PD 14 Housing Type Diversity



The community above achieves 7 points for Housing Type Diversity.

PD 14 Preservation of Historic Structures

1 point

Purpose

Promote the preservation and use of historic structures and/or pursue historic designation for potential structures.

Criteria

Preserve potential historic sites or structures through successfully submitting and gaining designation as a historic building with the relevant state preservation agency and/or the National Register of Historic Places.

Verification

- Copy of the register listing for historic designation.

PD 15 Street Width Reduction

1 – 4 points

Purpose

Reduce traffic speeds, contribute to a more pedestrian-scaled community and reduce impervious surfaces.

Criteria

Work with local planning officials and emergency response department representatives to obtain a variance to reduce street widths by a percentage for 75% linear feet of all new streets in the development.

OR

Design 75% of streets to meet the following specifications:

Maximum widths for streets of a design speed 25 mph or less, curb face to curb face:	
One-way	10 feet
One-way with striped parking one side	17 feet
Alley	12 feet
Two-lane with informal parking one side	20 feet
Two-lane with informal parking both sides	26 feet
Two-lane with striped parking one side	27 feet
Two-lane with striped parking both sides	34 feet

Street widths are measured from curb face to curb face.

Street Width Reduced	Points
10%	1
15%	2
20%	3
ECC Specs (chart above)	4

Example:

1. Determine the existing street width requirements for each new street type planned for the project.
2. Calculate the total linear feet of these new streets within the property boundary.
3. Obtain a variance to reduce at least 75% of the streets in the community by 10, 15 or 20% of their current required width.
4. Refer to the chart to determine how many points can be earned by the project.

Planning and Design♦ PD 15 Street Width Reduction

Verification

- Calculation clearly communicating the street width reduction.
- Final construction documents identifying street widths of all internal streets.

PD 16 Preferred Parking

1 point

Purpose

Encourage cleaner commutes and improve air quality in the region.

Criteria

Designate preferred parking spaces for carpools, scooter/motorcycles or low-emitting vehicles at offices, civic buildings and other destinations that attract employees from outside the neighborhood.

Spaces must be clearly marked and secondary priority only to ADA spaces.

Total number of preferred parking spaces should be no less than 2 or 2% of the total number of provided parking spaces within the project boundary, whichever is larger.

Verification

- Signage plan designating the location and type of preferred parking spaces.
- Construction documents designating the location and type of preferred parking spaces.
- Inspection by an ECC Technical Advisor.

PD 17 Electric Vehicle Charging Stations

2 point

Purpose

Encourage the use of hybrid and all electric vehicles and improve air quality in the region.

Criteria

Provide electric vehicle charging stations and designate parking space as "EV Parking Only." Charging stations must be easily visible and be secondary in priority only to ADA spaces.

Total number of electric vehicle charging stations should be no less than 2 or 2% of the total number of provided parking spaces within the project boundary, whichever is larger.

Verification

- Signage plan designating the location and type of electric vehicle charging spaces.
- Construction documents designating the location and number of electric vehicle charging stations.
- Inspection by an ECC Technical Advisor.

PD 18 Public Parking Reduction

1 – 4 points

Purpose

Reduce large surface lots in order to minimize heat island effects, improve stormwater management on-site, provide a more pedestrian friendly environment and prevent the unnecessary sprawl development pattern.

Criteria

Utilize on-street parking, shared parking and parking decks to their fullest extent possible.

AND

Do not exceed local minimum off-street parking requirements.

AND EITHER

Reduce parking below local minimum off-street parking by a percentage.

OR

Do not provide more than the following off-street parking spaces:

Residential dwellings	One parking space per unit or less.
Office and Civic (including community centers)	3 spaces per 1,000 ft ²
Hospital and like institutions	One and one-half parking space per room.
Retail	4 spaces per 1,000 ft ²
Light Industrial Uses	2 spaces/ 1,000 ft ²

Where the total number of spaces required is not a whole number, the next largest whole number shall be the parking maximum.

The parking associated with the building(s) as noted in local zoning requirements should be used.

Special dispensation will be given to parking decks.

Parking Percentage Reduction	Points
10%	1
20%	2
30%	3
ECC specs	4

Planning and Design♦ PD 18 Public Parking Reduction

Strategies

- Shared parking
- Proximity to alternative transportation
- Alternative transportation initiatives (car share, bus pass provisions, pervious spaces for overflow parking, etc.)

Verification

- Calculation of the total number of off-street parking spaces required by code and the total number of off-street spaces provided by the project.
- Permitted site plan with a parking plan that clearly indicates the number of off-street parking spaces provided for each use on-site.

PD 19 Private Parking Reduction

3 points

Purpose

To minimize impervious coverage, create a more vibrant streetscape and create a more pedestrian friendly environment.

Criteria

Construct alleyways behind houses to service back-loading garages for at least 50% of single-family detached homes and townhomes. If garage alleys are inappropriate for a specific context, a shared driveway may contribute to this point.

Verification

- Permitted site plan identifying proposed private parking alleys.
- Construction documents clearly indicating private parking alleys.
- Calculation of the percentage of single family detached homes and townhomes served by alleys, shared driveways or remote parking.

Landscape Preservation

PL 0.1 Critical Habitat Protection

Requirement

Purpose

Protect ecological communities from land-disturbing activities.

Criteria

If during the Sensitive Wildlife Habitat Mapping conducted as part of the ECC Site Analysis Packet revealed the presence of federally-listed threatened or endangered species' habitat on-site the project is required to hire a qualified biologist to produce a Habitat Conservation Plan per the Endangered Species Act.

Preserve 100% of the found on site by placing an undisturbed 100-foot buffer around those areas. The buffer should be protected from all land clearing and development activity, and must be permanently protected along with the habitat area.

Verification

- Habitat Conservation Plan per the Endangered Species Act.
- Controlling documents verifying permanent protection of the habitat and buffer.
- Inspection by an ECC Technical Advisor.

LP 0.2 Preserve Riparian Buffers

Requirement

Purpose

Decrease stream bank erosion, provide floodwater storage, increase wildlife habitat, provide passive recreation areas and filter sediments and pollutants in runoff.

Criteria

Maintain a 75-foot average (50-foot minimum with allowances) riparian buffer along each marsh and state waterway.

OR

If the marsh or state waterway is listed in the 305(B)/303(D) Impaired Streams Segment document or in the local comprehensive plans as impaired, maintain the buffer as required by authorities.

AND

Do not make the post-construction water quality worse than predevelopment levels.

Clarifications

- Marshes and state waterways are defined by the environmental consultant for the project or local issuing authority.
- Offline naturalized stormwater detention ponds are NOT held to this buffer requirement.
- Buffers are calculated from the edge of the delineation and must be preserved in both area and vegetation.
- Buffers will be required on both sides of the riparian delineation (when applicable) or to the projects side of the riparian edge if located along a site boundary.

Allowances within the buffer:

- Pervious or impervious trails of 8-foot maximum width and small pavilions of no more than 500 ft² are allowed for nature appreciation and recreational opportunities. Minimal grade changes to buffer area are allowed if required to enable community access to water.
- For projects crossing a stream, minimize the number of waterway crossings. Construct all crossings to meet the following criteria:
 - Stabilize bank prior to and immediately after construction
 - Build the crossing perpendicular to the flow of water
 - Design the crossing to occur at only one point along the waterway
 - Do not use traditional culverts with invert
 - Employ minimally intrusive construction practices
- Where a marina is proposed, design and require operations to adopt the Clean Marina Best Management Practices of University of Georgia (UGA) Marine Extension Service, or local equivalent.
- For all projects intending to develop docking facilities:
 - Construction of docking facilities is not permitted in areas of sensitive natural resources, as defined in your habitat analysis conducted as part of the ECC-required Site Analysis Packet.
 - Docking facilities must meet the Department of Natural Resources requirements.
 - Communal docks must be used with the ratio of 10 lots = 1 docking facility.
 - The maximum length of any one communal docking facility cannot exceed 1,000 feet.

Landscape Preservation ♦ LP 0.2 Preserve Riparian Buffers

- No docking facility can extend past property lines or dock corridor lanes. Docks and piers must end at the first navigable stream or 1,000 feet, whichever is less.

Verification

- Narrative indicating the intended strategy for preserving and restoring the buffer, any expected activities within the buffer, potential restoration needs and the local buffer requirements.
- If restoration or any activity must occur within the buffer: Submit a plan created by a qualified biologist, environmental agency, professional landscape architect or professional engineer explaining the reasons and methods of mitigation for any disturbance to the riparian buffer, and plans for buffer restoration if previously impaired.
- Permitted site plan which clearly indicates buffer protection.
- Construction documents containing a protection plan as part of the erosion control plan, dictating that appropriate barriers (orange tree protection fence, wire-backed silt fence, etc.) must be installed prior to ALL land development activities.
- Controlling documents (conservation easement, deed restriction or local ordinances) clearly addressing all buffer areas in permanent protection.
- Inspection by an ECC Technical Advisor.
- Stream Crossings:
 - Narrative indicating the planned strategies for meeting the requirement. Include an explanation of how stream crossings were minimized in the design of the community, wherein they exist and how they meet the aforementioned criteria.
 - Permitted site plan that indicates the stream crossing location and specifications.
- Marinas:
 - If choosing a local Clean Marina Program, provide a narrative describing how the program is equivalent to the UGA program, and provide an electronic copy of program requirements.
 - Narrative or registration material indicating the project has engaged with the Clean Marina Program or local equivalent.
 - Proof of Clean Marina Program or local equivalent certification.
- Docks:
 - Narrative indicating how the project's docking facility management plan meets the Department of Natural Resources requirements.
 - Conceptual site plan that indicates the location of all docking facilities.
 - Construction documents that contain a docking facility management plan.

LP 0.3 Minimize Wetland Impact

Requirement

Purpose

Improve the quality of surface water and groundwater, protect natural habitats and manage water naturally during rainfall events.

Criteria

Design the community on land without jurisdictional or non-jurisdictional wetlands.

OR

Protect 100% on-site jurisdictional and non-jurisdictional wetlands from all construction activity.

OR

If wetlands are disturbed, obtain at least 2 points under Advanced Stormwater Quality credit (Water Management Section)

AND

Adhere to the following requirements:

Jurisdictional:

Do not disturb by fill, discharge or drain more than 10% of jurisdictional wetlands on site. Disturbance can be allowed for installation of infrastructure only; not to create buildable area. Follow federal law for mitigation acreage and protocol.

Non Jurisdictional:

Non-jurisdictional, isolated wetlands must be mitigated in a ratio of 1:1 in compliance with the following protocol (in order of priority):

1. On-site.
2. If it is impractical to mitigate on site, the project should mitigate off-site within the same watershed. The project team must demonstrate why it is impractical to mitigate on site.
3. If it is impractical to mitigate off-site within the same watershed, the project must purchase land from a land trust or credits from a mitigation bank.

Any acreage created for mitigation of wetland impacts is not awarded ECC credit under other criteria or requirements.

Verification

- Wetland delineation map.
- Grading plans or erosion and sedimentation control plans clearly identifying protection fencing around all wetlands and buffers.
- Narrative explaining why wetlands must be disturbed.
- If the project is mitigating off-site, provide a map that indicates the mitigated area is within the same watershed.
- If the project is working with a land trust or mitigation bank, provide proof of mitigation credit purchase.

LP 0.4 End Use of Invasive Plants

Requirement

Purpose

Encourage native ecological systems and discourage the introduction of invasive or non-native species.

Criteria

Do not design or specify the installation of any invasive species as listed in state or local guidelines.

Verification

- Construction documents, including planting plans, which clearly specify native or regionally-adaptive species only.
- Invasive species list from local guidelines.
- Controlling documents such as property management OR homeowner association documents clearly requiring any future landscaping to be native or regionally adaptive.
- Inspection by an ECC Technical Advisor.

Landscape Preservation+ LP 0.5 50% Greenspace (CONSERVATION)

LP 0.5 50% Greenspace (CONSERVATION)

Conservation: Requirement

Purpose

To preserve or create natural ecosystems and provide educational and recreational opportunities to residents.

Criteria

If 25% of the entire project area is covered with prime agricultural soils, preserve at least 25% of the project area as agricultural land as defined by the United States Department of Agriculture. The portion preserved is not required to be the area of prime agricultural soils. This requirement is preserving the land only; points are awarded for creation or retention of a working farm.

AND

If the project is NOT a previously developed site:

- Design the community such that a percentage of the property is preserved greenspace.
 - High Priority Preservation Areas identified by the Habitat Conservation Plan or Habitat Map produced during site analysis must be preserved greenspace.
 - Land preserved by agricultural easement due to the identification of prime agricultural soils is calculated towards this percentage of greenspace.

If the project is a previously developed site:

- Design the community such that a percentage of the property is preserved or constructed greenspace which mimics natural conditions and prioritizes habitat restoration. Constructed greenspace may also earn points within Greenspace and Habitat Restoration Credit.
 - High Priority Preservation Areas identified by the Habitat Conservation Plan or Habitat Map produced during site analysis must be preserved greenspace.

Percentage of Greenspace	Points
50%	Required

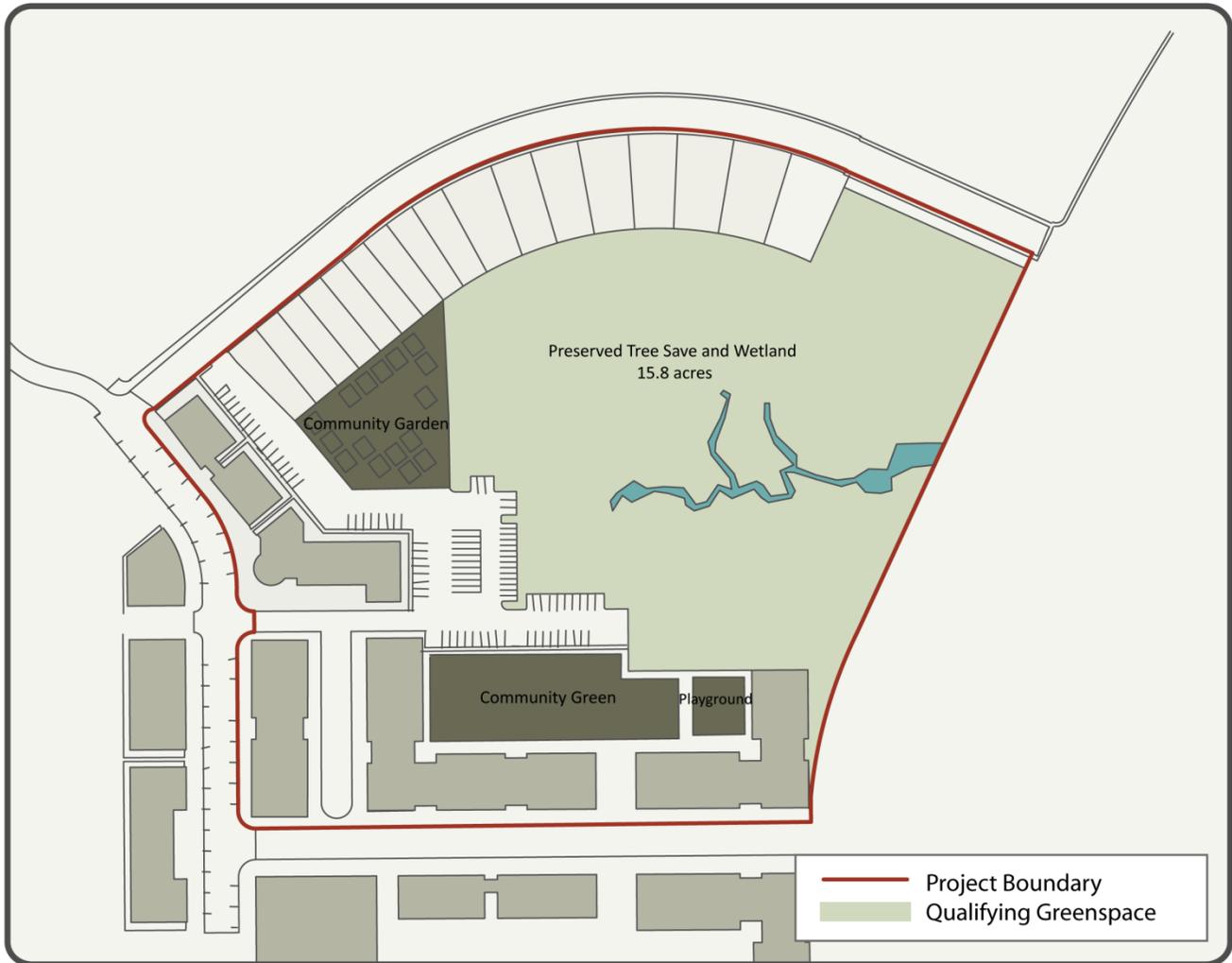
Verification

- For off-site greenspace:
 - Aerial photo clearly indicating property boundary and greenspace in proximity to project. Size and distance should be clearly marked.
 - Narrative indicating the ownership and management entity of these greenspaces.
 - Documentation as needed that indicates preservation in permanent conservation easement or other legal conditions.
 - Inspection by an ECC Technical Advisor.
- For on-site greenspace:
 - Permitted site plan clearly indicating the greenspace areas.
 - Construction documents that contain a protection plan for areas NOT to be cleared. Plan must dictate that an appropriate barrier (orange tree protection fence, wire-backed silt fence, etc.) must be installed PRIOR to tree clearing activities.

Landscape Preservation ♦ LP 0.5 50% Greenspace (CONSERVATION)

- Controlling documents, such as conservation easements, indicating permanent protection of greenspace areas.
- Inspection by an ECC Technical Advisor.

Example



Above Image: The conservation development shown above is located on an undeveloped site; NOT previously developed. Through proper site design, the project preserves 78% of the property as greenspace. This greenspace includes tree save areas and wetlands which help the project meet the requirements or gain points in the ECC program elsewhere. The community garden, community green and playground all qualify as ECC openspace.

LP 0.6 5% Open Space (URBAN)

Urban: Requirement

Purpose

Create spaces for community and public interaction.

Criteria

Design and/or locate community such a percentage of the total project area is openspace. This openspace can be on-site or located within a ½ mile walkable distance as measured from the project’s area of highest density to the entryway of the open space. On-site open space accessible only to community residents can count for no more than ½ of the required area.

Urban Percentage of Open Space	Points
5%	Requirement

Verification

- Off-site open space:
 - Aerial photo/permitted site plan clearly indicating the area of highest density, the location of the off-site open space and its entryway and the walkable distance route.
 - Documentation as needed indicating the preservation of the openspace via permanent conservation easement or other legal conditions.
 - Inspection by an ECC Technical Advisor.
- On-site open space:
 - Permitted site plan clearly indicating the size of the on-site openspace.
 - Documentation as needed indicating the preservation of the openspace via permanent conservation easement or other legal conditions.
 - Inspection by an ECC Technical Advisor.

LP 1 Wetland Preservation

5 points

Purpose

Protect natural habitats, flood control and water filtration functions of swamps, bogs, fens, fresh water marshes, salt water marshes and other wetlands in the Southeast.

Criteria

Provide an undisturbed 100-foot buffer for all jurisdictional or non-jurisdictional wetlands on site or on adjacent properties off-site. The buffer should be protected from all land clearing and development activity, and must be permanently protected.

Coastal projects may obtain this credit if they locate on a site that does not contain wetlands. Piedmont and Mountain projects may only achieve this credit if the site contains wetlands and the buffer requirements are achieved.

Clarifications

- Buffers are calculated from the edge of the delineation and must be preserved in both area and vegetation.
- Buffers will be required on both sides of the wetland delineation (when applicable) or to the projects side of the wetland if located across a site boundary.

Verification

- Wetland delineation map.
- Grading plans or erosion and sedimentation control plans clearly identifying protection fencing around all wetlands and buffers.
- Inspection by an ECC Technical Advisor.

LP 2 Greenspace

Conservation: 2 – 5 points
Urban: 2 – 5 points

Purpose

To preserve or create natural ecosystems and provide educational and recreational opportunities to residents.

Criteria

A. Conservation

If 25% of the entire project area is covered with prime agricultural soils, preserve at least 25% of the project area as agricultural land as defined by the United States Department of Agriculture. The portion preserved is not required to be the area of prime agricultural soils. This requirement is preserving the land only; points are awarded for creation or retention of a working farm.

AND

If the project is NOT a previously developed site:

- Design the community such that a percentage of the property is preserved greenspace.
 - High Priority Preservation Areas identified by the Habitat Conservation Plan or Habitat Map produced during site analysis must be preserved greenspace.
 - Land preserved by agricultural easement due to the identification of prime agricultural soils is calculated towards this percentage of greenspace.

If the project is a previously developed site:

- Design the community such that a percentage of the property is preserved or constructed greenspace which mimics natural conditions and prioritizes habitat restoration. Constructed greenspace may also earn points within Greenspace and Habitat Restoration Credit.
 - High Priority Preservation Areas identified by the Habitat Conservation Plan or Habitat Map produced during site analysis must be preserved greenspace.

Percentage of Greenspace	Points
50%	Required
55%	2
60%	3
65%	5

Landscape Preservation♦ LP 2 Greenspace

B. Urban

Design the community such that a percentage of the property is preserved or constructed greenspace as outlined below, OR the required acreage is within 1/2 -mile walkable distance from any point along the project boundary. If the access to the greenspace area is accessible by ¼ mile walkable distance, the total greenspace area (e.g. a park) is calculated towards this credit.

If the project is a previously developed site:

- Design the community such that a percentage of the property is preserved or constructed greenspace which mimics natural conditions and prioritizes habitat restoration. Constructed greenspace may also earn points within Greenspace and Habitat Restoration Credit.

If the project is NOT a previously developed site:

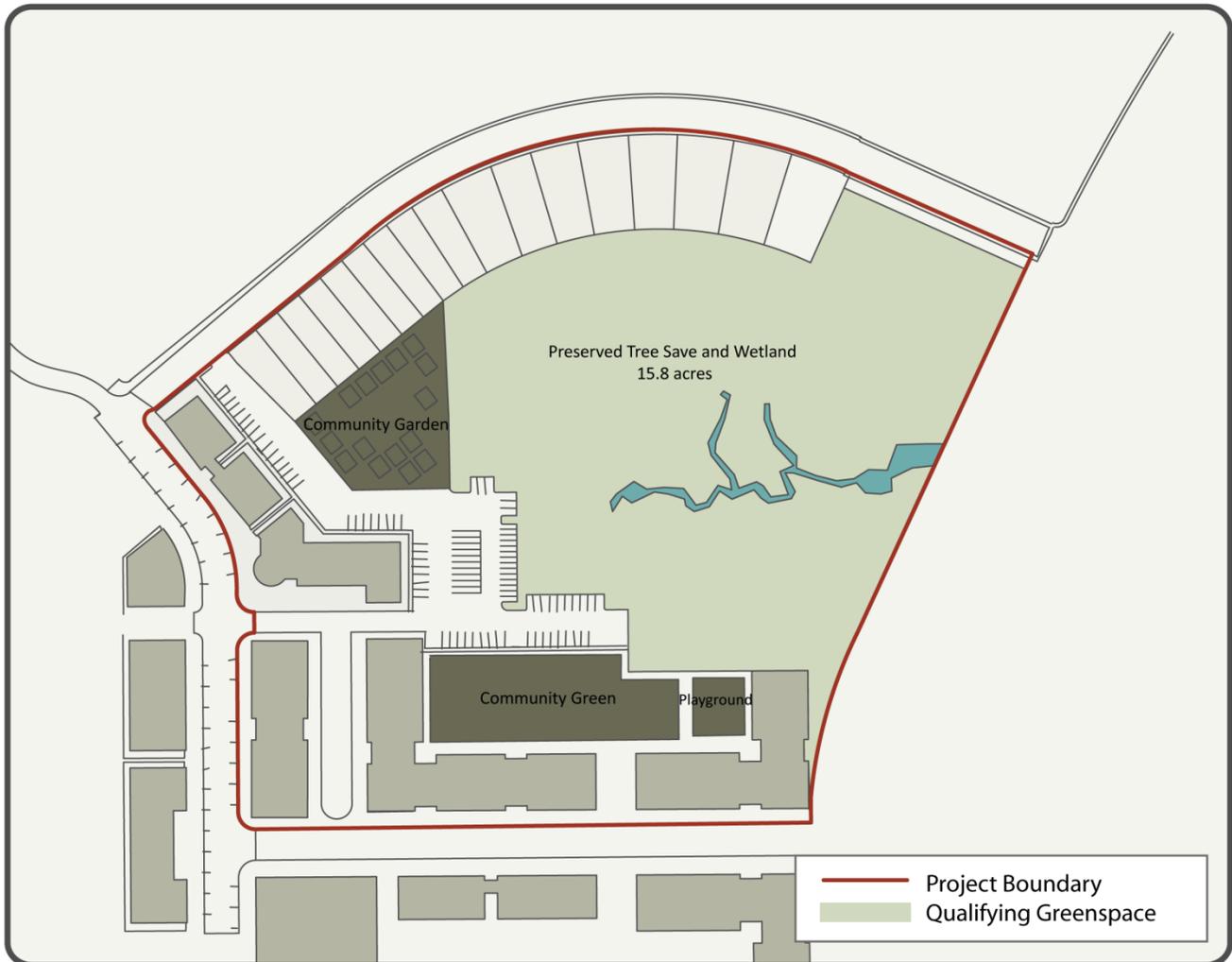
- Design the community such that a percentage of the property is preserved greenspace.

Percentage of Greenspace	Points
5%	2
10%	3
15%	5

Verification

- For off-site greenspace:
 - Aerial photo clearly indicating property boundary and greenspace in proximity to project. Size and distance should be clearly marked.
 - Narrative indicating the ownership and management entity of these greenspaces.
 - Documentation as needed that indicates preservation in permanent conservation easement or other legal conditions.
 - Inspection by an ECC Technical Advisor.
- For on-site greenspace:
 - Permitted site plan clearly indicating the greenspace areas.
 - Construction documents that contain a protection plan for areas NOT to be cleared. Plan must dictate that an appropriate barrier (orange tree protection fence, wire-backed silt fence, etc.) must be installed PRIOR to tree clearing activities.
 - Controlling documents, such as conservation easements, indicating permanent protection of greenspace areas.
 - Inspection by an ECC Technical Advisor.

Example



Above Image: The conservation development shown above is located on an undeveloped site; NOT previously developed. Through proper site design, the project preserves 78% of the property as greenspace. This greenspace includes tree save areas and wetlands which help the project meet the requirements or gain points in the ECC program elsewhere. The community garden, community green and playground all qualify as ECC openspace.

LP 3 Open Space

Conservation: 2 – 5 points
 Urban: 2 – 4 points

Purpose

Create spaces for community and public interaction.

Criteria

Design and/or locate community such that a percentage of the total project area is openspace. This openspace can be on-site or located within a ½ mile walkable distance as measured from the project’s area of highest density to the entryway of the open space. On-site open space accessible only to community residents can count for no more than ½ of the required area.

A. Conservation

Conservation Percentage of Open Space	Points
5%	2
10%	3
15%	4
20%	5

B. Urban

Urban Percentage of Open Space	Points
5%	Required
10%	2
15%	3
20%	4

Verification

- Off-site open space:
 - Aerial photo/permitted site plan clearly indicating the area of highest density, the location of the off-site open space and its entryway and the walkable distance route.
 - Documentation as needed indicating the preservation of the openspace via permanent conservation easement or other legal conditions.
 - Inspection by an ECC Technical Advisor.
- On-site open space:
 - Permitted site plan clearly indicating the size of the on-site openspace.
 - Documentation as needed indicating the preservation of the openspace via permanent conservation easement or other legal conditions.
 - Inspection by an ECC Technical Advisor.

LP 4 Greenspace & Habitat Restoration

2 – 4 points

Purpose

Restore bioregions, habitats and ecosystems natural to the Southeastern topography, climate zone and ecology.

Criteria

If land is degraded by uses occurring prior to developer purchase:

Hire a qualified biologist or registered landscape architect to assess the project site and prepare a Restoration Plan.

Restoration efforts are awarded points for their level of complexity, total acreage, ability to address the environmental priorities for the site, watershed or region and level of implementation.

This plan should, at a minimum:

- Describe the scope of restoration potential for the site. Identify specific areas that can be protected and actions that can be taken to restore the area to natural conditions. Priority restoration areas include natural drainage ways, wetlands, forests, stream banks, bottomlands and infiltration areas.
- Describe the chosen restoration areas and actions in terms of acreage, complexity and level of priority for the site, watershed or region.

Strategies include but are not limited to:

- Soil improvement
- Wetland repair
- Natural hydrology restoration
- Removal of invasive species
- Stream day lighting

Restoration Levels:

Restoration Levels	Points
Basic	2
Complex	4

Landscape Preservation♦ LP 4 Greenspace & Habitat Restoration

Example

A. Basic Restoration

- Stream bank restoration within the project site
- Removal of privet from a ¼-acre of greenspace on site

B. Complex Restoration

- Daylighting a stream in an urban area

Additional Resources

- Level IV EPA Eco regions map
- Department of Natural Resources habitat lists
- Corps of Engineers' Streambank Restoration Protocol

Verification

- Restoration Plan prepared by a qualified biologist or registered landscape architect.
- If plan references specific requirements for buffers, protection areas or construction methodologies, integrate requirements into conceptual drawings and submit permitted site plan clearly indicating areas for preservation.
- Submit construction documents which clearly follow the recommendations of the Restoration Plan and provide photo documentation of before and after conditions.
- Inspection by an ECC Technical Advisor.

LP 5 Access to Fresh Food

3 points

Purpose

Reduce embodied energy of food transportation and increase resident access to fresh food.

Criteria

A. Conservation:

Design and permanently protect a minimum of 10% of the total project site as agricultural land for the production of produce or livestock for local sale and consumption. Work with local farmers or agricultural agencies during the project's conceptual stages to design and develop a working farm.

The farm should be located in an area suitable for cultivation, with adequate sun access, topography and hydrology.

B. Urban:

Design and permanently protect land in the development as community garden plots.

- The total area of garden plots must equal twice the average residential unit size.
- For projects obtaining points for density, the total area of garden plots must equal the average residential unit size.

Unit size is measured by the square footage of the building envelope.

Create more garden plots based on demographics of occupants as necessary. The garden should be located in an area suitable for cultivation, with adequate sun access, topography and hydrology and must be suited with a tool shed and water access at a minimum.

Property management guidelines, home owner association documents or other controlling documents should reflect landscape maintenance of the community garden area.

OR

Organize and maintain a contract with a local Community Support Agriculture (CSA) system or similar service for delivery of fruits and vegetables produced within 150 miles of the project. The benefit can be organized at the developer's discretion but should, in total, subsidize the cost of a CSA share for each unit by a reasonable amount for a minimum of 3 years from the date of first CO.

OR

Locate the project within 1/2 mile linear distance of a neighborhood farmers market or within ¼ mile walkable distance to a destination transit stop which links transit riders to a farmers market. The service between transit stops must be regular and the destination transit stop must be within ¼ mile walk distance of a neighborhood farmers market.

Landscape Preservation♦ LP 5 Access to Fresh Food

Verification

- Narrative describing how the farm will be developed, operated and managed. Include at least the following information:
 - Name and contact information for the farmer or agency representative with whom the project is working to design the farm or to design the community gardens.
 - Funding mechanism for the farm.
 - Names of personnel working on the farm operation and design plans.
- Permitted site plan indicating location and size of the farm or garden area.
- Controlling documents, such as an easement document or deed restriction, indicating the permanent preservation of land.
- Controlling documents, such as Property Management documents or HOA documents, reflecting the maintenance of the garden area.
- Inspection by an ECC Technical Advisor.

OR

- Narrative describing how the CSA program is structured.
- Contract with CSA or HOA/Property Management documents ensuring the benefit is funded for required time period.

OR

- Area map indicating the location of the neighborhood farmers market and the linear distances and/or walkable routes. Include a scale on the map.

LP 6 Utility Installation

2 points

Purpose

Reduce land disturbance caused by installation of underground utilities and prevent base paving from being taken to landfill.

Criteria

Install all utilities that require trenching prior to base paving. Hand dig the lines near unavoidable tree root zones that are identified for preservation.

AND

Combine utility lines in common underground trench to reduce trenching by 50%.

Example

Four lines into two trenches across the site meets the 50% reduction criteria.

Verification

- Narrative indicating intent and strategy. Specifically explain which utilities are expected to participate.
- Construction documents.

Landscape Preservation ♦ LP 7 Organic Landscape Installation & Management

LP 7 Organic Landscape Installation & Management

2 points

Purpose

Protect water quality and soil health.

Criteria

Utilize only organic fertilizers and an integrated pest management system for all new and existing landscape installation and management.

Verification

- Construction documents specifying the use of organic fertilizers for landscape installation.
- Landscape management documents or similar controlling document specifying organic management strategies.

LP 8 Off-Site Greenspace Preservation

3 points

Purpose

Preserve the natural character of the region.

Criteria

Utilize transferable development rights (TDRs) to achieve a density beyond what would otherwise be permitted by current zoning of parcels.

OR

Preserve greenspace off-site through purchase or donation of a conservation easement or a payment to a government agency. Qualifying land must be two acres or 10% of the developed footprint, whichever is greater.

Off-site greenspace preservation that is required by a public agency to compensate for an on-site environmental impact does not qualify, nor does greenspace purchased for community signage or other publicity.

Verification

- Registration documents that confirm purchase of TDRs, conservation easements or other instruments verifying donation of land to municipality.

LP 9 Design Around Trees

3 points

Purpose

Create a sense of place with mature vegetation, aid in mitigation of heat island effect and preserve natural landscape.

Criteria

Make infield design adjustments to preserve at least 20% of trees with a diameter breast height measurement of eight inches or more.

Clarification

Trees deemed unhealthy by a certified arborist do not need to be included in this calculation if the arborist determines these trees cannot be saved through conventional measures.

Verification

- Tree survey identifying all trees of eight-inch diameter at breast height (DBH) measurement or greater from certified arborist or qualified and registered landscape architect.
- Grading plans clearly indicating tree protection fencing.
- Inspection by an ECC Technical Advisor.

LP 10 Preservation of a Specimen Tree

1 point

Purpose

Create a sense of place with mature vegetation, aid in mitigation of heat island effect and preserve habitat and natural landscape.

Criteria

Locate project on a previously developed site. If previously developed site has existing mature trees, the project design must also comply with the Design Around Trees Criteria to attain this point.

OR

Preserve a specimen tree, showcase the tree in the site design, and provide signage describing the tree. To qualify, assess the tree size based on the American Forests' Champion Tree rating scale. The tree should attain at least 75% of the points of the state champion tree of that species.

OR

Preserve and register a culturally-significant tree in the state's Urban Forestry Council's "Landmark and Historic Tree" program or equivalent local program. Showcase the tree in the site design and provide signage.

Clarifications

Tree root zones (area extending in all directions from trunk) must be protected with a physical barrier and no soil from clearing, grading or construction activity should be placed on top of any root zone for trees that are designated for preservation. Trees must be fenced around the drip line throughout the construction process. Fences must be made of wood using 2x2 lumber and firmly set.

Verification

- Tree survey which clearly indicates the size, species and cultural significance of trees as outlined in the tree preservation organizations.
- Construction documents including a Tree Preservation Plan. This plan should include tree protection details. This plan may be part of the grading plans.
- Supporting documentation from a relevant tree preservation organization (American Forest, Georgia Urban Forestry Council, etc.) that indicates program participation.
- Inspection by an ECC Technical Advisor.

LP 11 Tree Transplanting

3 points

Purpose

Create a sense of place with mature vegetation, aid in mitigation of heat island effect and preserve natural landscape.

Criteria

Work with an arborist or registered landscape architect to identify trees that are suitable for transplanting. Develop a transplanting program to relocate trees that would have otherwise been disturbed or removed, to another place on-site or to an off-site location.

Transplant a total of eight caliper inches of tree per acre or a minimum of at least one six-inch tree.

AND

Develop post-transplanting maintenance protocol for two years after transplanting. This maintenance protocol should be part of the ongoing management documents for the property.

Verification

- Narrative that includes the name of the arborist or landscape architect developing the transplanting program.
- Transplanting plans.
- Tree maintenance plans
- Controlling document ensuring maintenance protocol for tree plantings are followed.
- Inspection by an ECC Technical Advisor.

Community Engagement

CE 0.1 Community Participation

Requirement

Purpose

Engage surrounding community to better understand their issues and uncover potential opportunities available to the project.

Criteria

Early in conceptual design, host a public meeting either on the project site or in a public building near the site (library, civic center, etc.) and invite the general public from the surrounding community to openly discuss the project.

Verification

- Copy of the invitations sent out to the community.
- Narrative describing the location, date and topics discussed.
- Sign-in sheet from the community meeting.

CE 0.2 Operations & Management

Requirement

Purpose

Maintain the integrity of the development as a Certified EarthCraft Community.

Criteria

Require the preservation and maintenance of all amenities and features that contribute to EarthCraft Communities certification. This must be done through controlling documents such as covenants, codes, restrictions, property management guidelines or similar verification documents registered with the title of the land.

These amenities and features are different for each ECC depending on the track and points sought so a thorough review of the project's individual ECC worksheet is required to identify each project specific amenity/feature.

Verification

- Controlling documents that directly address the maintenance of amenities and features that contribute to ECC certification.

CE 0.3 Neighborhood Association

Requirement

Purpose

Maintain the integrity of the development as a Certified EarthCraft Community.

Criteria

Establish an "environmental coordinator" position within the neighborhood association for the community. This environmental coordinator will keep the ECC certification information/worksheet and support all environmental initiatives within the community.

AND EITHER

Establish a neighborhood association that is open to residents and charged with maintaining all community features that contribute to EarthCraft Communities certification.

OR

Work with an existing neighborhood association of which the development residents will be a part and educate them about the ECC certification.

Verification

- Verification documents indicating the formation of this association and bylaws establishing an environmental coordinator position.

CE 0.4 Resident Education

Requirement

Purpose

Improve the performance of the community and buildings.

Criteria

Create a program to educate residents about the environmental features of the community and residential units.

Program should be added to homeowner and/or renter manuals. It must review the residents' responsibilities in maintaining and operating the units and identify any community features that require ongoing maintenance.

This program must involve a walkthrough of a unit.

Additional Resources

EarthCraft has a template homeowner's guide available for download at <http://www.earthcraft.org/>

Verification

- Narrative describing the program that includes information about the persons who will provide the resident education and how the project is ensuring the resident education protocol will be followed (agreement with property management company, realtor agreements, etc.)
- Copy of the homeowners and/or renters manuals clearly educating residents about the unique green features of their community and unit.

CE 1 Community Charrette

2 points

Purpose

Engage surrounding community to better understand their issues and uncover opportunities available to the project.

Criteria

In addition to, or as part of, the required Community Participation public meeting or the required Integrated Design Charrette, convene a site planning charrette with all surrounding landowners or owner representatives and other community stakeholders.

This site planning charrette should be held during early conceptual stages of community design, prior to permitting, and must be at least two days in length.

The charrette must be facilitated by one of the following individuals with approval from ECC Administrators:

- A construction and design professional holding the National Charrette Institute Certificate. See www.charretteinstitute.org
- A construction and design professional with experience as primary community designer for certified EarthCraft Communities.

Verification

- Copy of the invitations sent out to the community.
- Narrative describing the location, date and topics discussed/conclusions reached.
- Sign-in sheet from the community meeting.

CE 2 Ongoing Community Engagement

1 point

Purpose

Engage surrounding community to better understand their issues and uncover opportunities available to the project.

Criteria

Engage the community in the project's development by providing a publicly-located input box, internet site or social media presence. The area should post the project's updated conceptual plans, contact information for community input and timeline.

AND

Create a committee, additive of any required by local government, for input on the project.

Schedule regular meetings throughout design and construction with this committee (at least quarterly and at major project milestones).

Verification

- Narrative describing the location of the input box or online presence.
- List of committee members.
- Sign in sheets from all meetings.

CE 3 Environmental Signage

1 point

Purpose

Educate residents and community visitors about the environmental features of the site and buildings.

Criteria

Exhibit educational signage materials about the site's environmental strategies and display the EarthCraft Communities Certification plaque.

Signage can include information about preserved features such as wetlands, streams, specimen trees or historic sites, and/or environmental strategies such as non-potable water irrigation, native plantings, and porous concrete that are used throughout the community.

To achieve credit, the project must provide environmental signs detailing one or more strategies from each category of the ECC worksheet.

Clarification

Environmental signage for LEV/electric vehicle charging or FLEX cars may count towards the total.

Verification

- Construction documents including a Signage Plan indicating the proposed location and text of the educational signs.
- Inspection by an ECC Technical Advisor.

CE 4 Government Education

1 or 4 points

Purpose

Educate local governmental agencies about environmental design.

Criteria

Government Education-Attempt (1 point)

Work with local government officials to try to change existing codes or ordinances to accommodate any strategy required or proposed within the EarthCraft Communities Certification Program.

OR

Government Education- Succeed (4 points)

Succeed in changing existing codes or ordinances to accommodate a strategy required or proposed within the EarthCraft Communities Certification Program.

Verification

- Electronic copy or link to existing ordinance(s) from which the project is requesting a variance.
- Narrative including the name of the ECC requirement or credit directly relating to the ordinance.
- Agenda(s) & Meeting minutes clearly indicating the request was discussed at a governmental meeting and/or written correspondence from governmental officials describing how they intend to handle the request for code change, barriers to the change, reasons for engaging the issue or not, etc.

OR

- Narrative including the name of the ECC requirement or credit directly relating to the ordinance.
- Electronic copy or link to the new ordinance(s).

CE 5 Recycling

1-3 points

Purpose

Reduce waste stream generated by community residents.

Criteria**1. Recycling Pick Up (1 point)**

Locate the project in a jurisdiction that has a municipally-provided recycling program with regular pickup servicing any portion of the site. The program may be curbside pickup for residential units and/or co-location with community trash receptacles.

The project should provide clear signage for co-located recycling containers and integrate recycling education into resident training, orientation and/or walk-through.

AND/OR**2. Community Recycling (2 points)**

Build a community recycling center that exceeds local recycling capabilities either in materials picked-up or building types serviced.

Maintain a contract with a pick-up service for a minimum of three years after ownership and management is given to the homeowners' association or property management entity.

The recycling service must be in operation no later than 50% occupancy.

Verification

- Recycling Pick up: Documentation of the jurisdiction's recycling pick-up program.
- Community Recycling: Narrative describing what is currently provided by municipally-provided recycling pick-up service, what services will be contracted for the community, where containers will be located and how the service contract will be maintained. Additional documentation of ongoing funding mechanism may be requested by ECC Technical Advisor.
- Contract or other verification document that the recycling service will be/is provided to the community.
- Inspection by an ECC Technical Advisor if possible prior to ECC certification is awarded.

CE 6 Community Composting

2 points

Purpose

Reduce waste stream from community and keep nutrients on site.

Criteria

Construct a community composting facility for use by residents. The facility should receive food waste and be accessible to all residents in the community.

AND

Provide educational signage on site and/or instructions for how to compost in Resident Education/Manual.

Additional Resources

EarthCraft has a template homeowner’s guide available for download at <http://www.earthcraft.org/>

Verification

- Permitted site plan clearly indicating the location of the composting facility.
- Inspection by an ECC Technical Advisor.

CE 7 Landscape Material Composting

1 point

Purpose

Reduce waste stream from community and keep nutrients on site.

Criteria

Construct a landscape composting facility for use by property management staff.

Verification

- Permitted site plan clearly indicating the proposed location of the composting facility.
- Inspection by an ECC Technical Advisor.

Green Building

GB 0.1 EarthCraft Builder Training

Requirement

Purpose

Educate builders within the community and those in the local area about green building design, construction, operation, and sustainable development strategies.

Criteria

Prior to completion of preferred builder list or marketing of lots (whichever comes first), either contract with Southface or approved entity to provide one full day EarthCraft House Builder Training (ECH) for builders in your region.

The project developer will host this training and select invitees.

Verification

- Verify contract with Southface or an approved entity for provision of an ECH training.

GB 0.2 Property Management/Realtor Training

Requirement

Purpose

Educate property management personnel or realtors working within the project with green building features, and highlight specific differences or unique management techniques that may be required within an EarthCraft building or EarthCraft Community.

Criteria

Contract with Southface, or an approved entity, to deliver a two-hour property management training for the management company staff responsible for primary maintenance of facilities and grounds.

OR

Contract with Southface, or an approved entity, to deliver a four-hour realtor training for realtors working within the community.

The project developer will host, select invitees and schedule the training.

Verification

- Signed contract for property management OR realtor training course.

GB 0.3 EarthCraft Construction

Requirement

Purpose

Promote energy, water and material resource efficiency by promoting green residential structures.

Criteria

Either construct and certify with a single EarthCraft builder.

OR

Require through builder agreements, or other controlling documents, EarthCraft certification for 100% of single family and multifamily construction in the Community, including all non-historic renovations and any community building.

Clarification

Single family homes with attached or detached structures that are intended to be habitable must also be EarthCraft certified. E.g., a carriage house or in-law suite. Additional guidance may be found in the EarthCraft House Manual.

Verification

- Copy of the section of builder agreements specifying the requirement to certify EarthCraft. This section can take the form of an addendum to lot purchase contracts.
- The list of EarthCraft builders contracted for the development.

GB 0.4 Commercial Green Building Certification

Requirement

Purpose:

Promote energy, water and material resource efficiency by supporting green commercial structures.

Criteria:

Wherein the community contains one or more new commercial structures, make provisions such that at least one commercial building certifies as EarthCraft for Light Commercial (ECLC), LEED or a recognized green building certification program approved by EarthCraft Communities.

Commercial structures addressed by this requirement are those held to commercial building code.

Verification

- Copy of a sale or lease agreement specifying the commercial structure to certify under an approved green building program. This section can take the form of an addendum to lot purchase contracts.

OR

- Green building registration letter or contract.

GB 1 Additional Commercial Green Building Certification

3 – 6 points

Purpose

Promote energy, water and material resource efficiency by supporting green commercial structures.

Criteria

Meet the ECC Commercial Green Building requirement.

AND

Make provisions for additional commercial building square footage to certify as EarthCraft for Light Commercial (ECLC), LEED or a recognized green building certification program.

Percentage of additional floor area is based on the total commercial building square footage allowed by zoning or planned via permitted site plan in the project less the square footage certified for ECC requirement. Projects should round up to the nearest whole building.

Additional percentage of floor area:

Additional Percentage of Floor Area	Points
25%	3
50%	4
75%	5
100%	6

* If only one qualifying structure exists on site (e.g. a community center within a residential development) then the 3 point item will be awarded upon successful certification.

Example

The project's permitted site plan contains 50,000 ft² of commercial square footage. One parcel is a 15,000 ft² building the project team has selected to certify as EarthCraft Light Commercial. The remaining commercial area is 35,000 split between two building sites; one is a small community building of 5,000 and the other is an office/retail building of 30,000. To receive credit, the project must certify the larger building because at least 25% of the remaining 35,000 ft² must certify. In this case, that is 8,750 ft². Thus, the project selects to certify the 30,000 ft² building; which is 85% of the remaining square footage. The project receives 5 points.

Verification

- Calculation of total commercial square footage.
- Copy of sale or lease agreement that specifies the commercial structures to certify under an approved green building program. This section can take the form of an addendum to lot purchase contract.

GB 2 Adaptive Reuse

3 points

Purpose

Promote energy, water and material resource efficiency.

Criteria

Preserve at least 30% of the total existing habitable building stock on-site.

Verification

- Permitted site plan clearly indicating the buildings renovated and kept on-site.
- Inspection by an ECC Technical Advisor prior to construction activity and post construction.

GB 3 EarthCraft Renovation of Historic Structures

1 point

Purpose

Promote energy, water and material resource efficiency.

Criteria

Certify at least one historic structure designated by national, state or local agencies under the EarthCraft Renovation program.

Verification

- Copy of the section of builder agreements specifying the requirement to certify the structure(s) as EarthCraft. This section can take the form of an addendum to lot purchase contracts.

GB 4 Renovation of Existing Commercial

2 points

Purpose

Reuse existing non-residential structures and improve energy efficiency.

Criteria

Meet current Energy Code for all lighting, HVAC and building envelope systems; excluding wall assembly requirements.

OR

Conduct an ASHRAE energy audit that includes energy cost savings and estimated cost for recommendations. Implement all suggested measures with a 5 year payback period.

Commercial buildings listed on the National Registry of Historic Places or similar listing will qualify for this point.

Verification

- Signed scope of work for Energy Code upgrades.
- Energy Audit Report.
- Narrative of pursued recommendations.

GB 5 District Heating / Cooling

5 – 11 points

Purpose

Promote efficient heating and cooling of multiple residential and commercial uses.

Criteria

Install a district heating and/or cooling system which provides the full heating and cooling capacity for a percentage of the total project square footage of conditioned space.

The strategy must provide a **community-wide system**. Any systems localized to individual homes/units will be awarded through the appropriate EarthCraft building program (ECH or ECMF).

A variable speed motor and drives should be used throughout as well as individual meters for each unit in the system.

Qualifying systems:

- Geothermal (ground loop) heating/cooling
- Combined heat and power (CHP)
- Solar heat
- Solar cooling using absorption chillers
- Condensing boiler

Percent of Condition Building Square Footage Supplied by District Heating/Cooling:	Points
25%	5
50%	7
75%	9
100%	11

Projects may earn a maximum of 20 points from the District Heating/Cooling, Renewable Electric Generation and Alternative Thermal Production credits.

Verification

- Calculation of the total conditioned building square footage for all structures within the project and total conditioned building square footage served by the district system.
- Utility installation plans detailing the district energy plan.

GB 6 Renewable Electric Generation

5 – 11 points

Purpose

Reduce consumption from non-renewable sources.

Criteria

Install a renewable energy technology or demonstrate future installation with deed restriction. The technology must either: distribute electricity to multiple buildings in the community or harvest and return energy to the grid. Points are awarded based on the percentage of the projected electricity use of all buildings within the community supplied by the technology. Projects may use the chart below as estimated electricity use per building type or can rely on building-specific energy modeling.

The strategy must provide a **community-wide system**. Any systems localized to individual homes/units will be awarded through the appropriate EarthCraft building program (ECH or ECMF).

If solar electric is the technology used to fulfill this credit, conduct a solar access analysis and clearly identify the areas or lots ideal for this technology. Ideal areas receive full sun at noon on the winter solstice (December 21st) and have no more than 50% of the area shaded at 9:00 AM and 3:00 PM on the summer solstice (June 21st).

Estimated Annual Electricity Usage:

Space Type	Kwh/ft ² per year of conditioned space.
Certified Commercial	5
Non Certified Commercial	6
EC Single Family	5
EC Multi Family	4
Retail	7.5

Percentage of projected electricity usage:

Percentage of Total Projected Electricity Use for Provided by Alternative Technology	Points
2%	5
5%	7
8%	9
11%	11

Projects may earn a maximum of 20 points from the District Heating/Cooling, Renewable Electric Generation and Alternative Thermal Production credits.

Verification

- Narrative describing the renewable energy system to be installed.
- Calculation of projected energy use for all structures within the project and amount of electric energy that will be produced by the renewable energy system.
- Utility installation plan.

OR

- Controlling documents such as deed restrictions.

GB 7 Alternative Thermal Production

5 – 11 points

Purpose

Produce hot water in an efficient manner.

Criteria

Produce a percentage of projected annual output of the **central heating and cooling plant** through solar or combined heat and power sources.

The strategy must provide a **community-wide system**. Any systems localized to individual homes/units will be awarded through the appropriate EarthCraft building program (ECH or ECMF).

50% of the combined heat and power output can be considered for this calculation.

100% of a solar thermal system can be considered for this calculation.

Percentage of Projected Annual Central Heat/Cooling Plant Output provided by Alternative Sources	Points
5%	5
10%	7
15%	9
20%	11

Projects may earn a maximum of 20 points from the District Heating/Cooling, Renewable Electric Generation and Alternative Thermal Production credits.

Verification

- Narrative describing the type of system to be installed and the units/buildings expected to be served.
- Calculation of the expected total annual output of the central heating and cooling plan in BTUs.
- Calculation of the total annual output percentage that will be provided by solar or combined heat and power.
- Utility installation plans and construction documents detailing the district energy plan and sources of alternative energy.
- Calculation of actual total annual output of the plant in BTUs and percentage provided by solar or combined heat and power.

GB 8 Efficient Site Lighting

1-3 points

Purpose

Promote a safe environment for pedestrian networks and bicycle paths, reduce light pollution and use energy more efficiently when illuminating. Improve efficiency of pedestrian and community roadways and improve amenity lighting.

Criteria**Pedestrian Scaled Cut-Off Fixtures (1 point)**

Provide pedestrian-scaled lighting along all pedestrian pathways and in public open space areas. Use International Dark-Sky Association-approved light fixtures or equivalent standard.

AND/OR

Energy Efficient Exterior Lighting (3 points)

Design exterior lighting with at least two of the following three strategies for all new exterior fixtures:

- PV lighting
- Automatic controls (solar sensor, timer, or other)
- Pin-based fluorescents or LEDs

OR

Design and install overhead street lights, parking area lights, pedestrian lights and all other exterior community amenity areas according to IESNA guidelines.

To achieve credit for exterior lighting efficiency the project must develop a design according to the Illuminating Engineering Society (IES) standards for **Lighting Zone 2** as detailed in the IES publication RP-33-1999, *Lighting for Exterior Environments*.

Additional Resources

Illuminating Engineering Society of North America: <http://www.iesna.org/>

International Dark Sky Association: <http://www.darksky.org/>

Verification

- Final construction documents detailing the efficient/renewable exterior lighting plan.
- Product literature with details on lighting package specifications.

OR

- Calculation of baseline energy use and expected energy use of all exterior lighting according to IESNA guidelines.
- Inspection by an ECC Technical Advisor.

GB 9 Clean Emissions Protocol for Heavy Equipment

2 points

Purpose

Reduce carbon emissions associated with construction equipment.

Criteria

Any construction equipment with machinery of 25 horsepower or more will require the following:

Equipment Requirements

1. EPA emissions standards of Tier 2 or equivalent. Compliance may be achieved through equipment that uses an EPA-certified engine or through equipment that has been retrofitted and verified by EPA.

Compliance can be achieved if all equipment is 10 years or younger.

Operational Requirements

2. All diesel used to fuel the equipment will be "Ultra-Low Sulfur Diesel" means diesel fuel with a sulfur content of 15 parts per million or less, as defined by 40 CFR §500-620.
3. The operator will limit idling of equipment to no more than five (5) minutes, unless the idling is essential to the mechanical operation of the equipment.
4. Contractor shall stage equipment away from any existing residential, business, educational or childcare, medical, commercial facilities.

Reporting Requirements

5. Each heavy equipment subcontractor must submit an inventory of compliant equipment. This log must be submitted on or before the first day of construction and must be turned into ECC immediately in order for compliance and for future site inspections.

Additional Resources

- EPA National Clean Diesel Campaign: <http://www.epa.gov/cleandiesel/>
- EPA NDCDC Verification: <http://epa.gov/cleandiesel/verification/>
- EPA Southeast Diesel Collaborative: <http://www.southeastdiesel.org/index.html>

Verification

- Copy of the executed agreement with applicable sub-contractors indicating the use of efficient equipment. Detail the verified technologies and practices that achieve the ECC standards above.
- Each applicable sub-contractor provides a list of equipment and operation policies compliant with the ECC standards above. Provide copy from each applicable sub-contractor to ECC. This must be submitted to ECC before the first day of equipment use.
- Inspection by an ECC Technical Advisor.

Innovation Points

1 – 5 points

Purpose

To encourage creative, environmental solutions in design, development and construction.

Criteria

Demonstrate an innovative strategy or practice in the application narrative. Points will be awarded by EarthCraft Communities on the degree of improved environmental performance over an existing criteria, difficulty implementing the practice and/or creativity and impact of the strategy.

Verification

- Submit verification materials as discussed with the ECC Technical Advisor.

Glossary

Activity Center Location

High density development zones with defined boundaries that are identified in regional comprehensive plans as an overlay. This zone attempts to attract dense settlement, promote expansion of multimodal transportation (such as transportation corridors), establish commercial and/or mixed-use centers, etc. A mixed-use future land use or zoning category by itself does not qualify.

Adjacent Site

A parcel of land that shares an endpoint or border with the project site.

Affordable Housing

Housing which costs no more than 30% of area family median income as defined by the U.S. Department of Housing and Urban Development.

Alternative Wastewater Infrastructure Plan

A construction document clearly indicating on-site infrastructure for conveyance and treatment of wastewater. The plan should include appropriate designs and specifications.

Area of Highest Density

The legal parcel boundary surrounding the densest residential or commercial area as determined by Dwelling Units per Acre (DUA) and Floor Area Ratio (FAR). The area may contain a single or multiple land uses.

Baseline Conditions

A calculation of the water volume needed to irrigate the most water intensive turf grass in the region at noon on the summer solstice. Assume spray irrigation and consider evapotranspiration rates.

Best Management Practices

Methods and techniques found to be the most effective and practical means of achieving a desired objective.

Brownfield or Superfund Site

Land complicated by the presence of a hazardous substance, pollutant or contaminant; defined by a state or local government as a 'brownfield' site and/or participation in the state voluntary clean-up program.

The site is identified by the EPA as a superfund site following the rules and procedures of the Superfund Amendments and Reauthorization Act of 1986 (SARA).

Buildable Land

Land within the property boundary where construction can occur including all internal roads, parking lots, sidewalks and municipally-required building setbacks or separations. Buildable land does NOT include on-site permanently preserved greenspace or open space, critical slope areas, preserved wetlands, or riparian buffers.

Building Frontage

The sides or faces of the building which is parallel to or is at an angle of 45 degrees or less to a street.

Cardinal Plane

A plane perpendicular to the direction of a plumb line, a line regarded as directed exactly toward the earth's center of gravity, in all four cardinal directions. The cardinal plane is used to analyze a site's propensity for passive/active solar access and barriers.

Certificate of Occupancy

A certificate issued by the local government or building department certifying that a building complied with building codes and is suitable for occupancy.

Charrette

A collaborative planning meeting that engages multiple stakeholders in the design and development process. As an alternative to the “design and present” convention, a charrette promotes community involvement in early stages of design development. Charrettes typically require between two and five days.

Clean Marina Program

A program by The University of Georgia that helps marinas prevent water pollution, recognizes marinas for doing so, and -through publicity- shows boaters which marinas are participants in the program. <http://www.uga.edu/cleanmarina/AboutCM.html>

Common Area Landscaping

All landscaped areas not owned or maintained by private homeowners. This includes all privately, publicly or municipally-owned landscaped areas maintained by commercial and residential management companies, condo associations and/or homeowners associations.

Community

The collection of all landowners within the surrounding geographic area of the project. This area is dependent upon the project size and defined by distance from the property line, as listed in the table below:

Proposed Project Size	Distance from property line (as the crow flies)
0.1-10 acres	¼ mile
11-50 acres	½ mile
51+ acres*	1 mile

* Includes any neighborhood organizations within five miles.

Controlling Documents

Documents which control the terms of development such as easements, contracts, deed restrictions and lease agreements.

Covenants, Codes, and Restrictions

Governing documents, typically enforced by Home Owner Associations, which outlining management protocol for a neighborhood. They may include regulations for environmental management, use of chemicals, common area maintenance, community signage, etc.

Credit

A statement describing an optional strategy or state of being for a project. A credit is composed of: purpose, criteria and verification materials.

Criteria

A performance or prescriptive action which must be followed in order to meet the program requirement or earn points. Criteria are within Program Requirements or Credits and vary depending on project eco region or development form.

Critical Slope Area

An area with a slope greater than-or equal to- 15 percent change in elevation or an erodibility factor of greater than 0.4 as determined by the Natural Resources Conservation Service of the USDA or defined by local or state law or rule, whichever is more stringent.

Development Footprint

Area within the project boundary covered by buildings, streets, parking areas or other, generally impervious surfaces. Permanently protected greenspace is not within the development footprint.

Development Form

The primary design pattern influencing project density, connectivity and layout. EarthCraft Communities allows developments to choose between two development forms: Urban and Conservation. Urban form must include a site that qualifies as an infill development and must have walkable pedestrian connections to an existing sidewalk network.

Development Node

A job center, high density residential area or mixed use area with services for daily activities.

Diameter at Breast Height (DBH)

4.5 feet from the forest floor on the uphill side of the tree where measurements are taken to determine growth, volume, yield and forest potential.

EarthCraft for Light Commercial (ECLC)

A cost-effective and environmentally responsible building strategy for commercial buildings sized 15,000 ft² or less. The program provides a prescriptive pathway for achieving certification, which is achieved through independent 3rd party site visits, testing and some documentation, and can be applied to both newly constructed buildings and most major renovations.

EarthCraft House (ECH) Builder Training

An eight-hour course in which builders, architects and project managers are trained on building science basics and methods of applying high performance and environmentally-friendly construction techniques to new homes. The course emphasizes cost-effective ways to improve the energy efficiency, indoor air quality, comfort and durability of homes. Participants also learn how the EarthCraft certification process works and get valuable information on effectively marketing the advantages of EarthCraft certification to their prospective buyers.

EarthCraft Communities Technical Advisor

A TA is a professional trained by Southface and EarthCraft to conduct field inspections of ECC requirements and credits implemented by the project pursuing certification.

EarthCraft Renovation Program

EarthCraft Renovation provides clear guidelines for renovations or additions to existing homes, with the goal of saving energy and water while improving indoor air quality. EarthCraft Renovation also assists homeowners and builders in identifying the causes of common problems like uncomfortable rooms, high energy bills, poor indoor air quality and combustion safety issues so these can be addressed during the renovation process.

Easy Living Home

A voluntary certification program for homes that incorporates the principles of universal design and strives to construct homes that provide easier access, passage and use for the resident.

<http://www.easylivinghome.org/>

Eco-region

An area of general similar type, quality and quantity of environmental resources and conditions. The ECC program categorizes the multiple EPA eco regions present in the southeast into three general categories: piedmont, mountain and coastal.

Evapotranspiration

The sum of evaporation and plant transpiration.

Floor Area Ratio

A measurement of non-residential land use density calculated by the total covered area on all floors of all non-residential buildings in the project divided by the area of buildable land designated by non-residential uses.

Greenspace

Land designated for conservation and/or passive recreation. Qualifying land cannot have been graded, cleared or disturbed by the project pursuing certification unless for minimal infrastructure installation. Qualifying land must be preserved in perpetuity with a conservation easement, deed restrictions or other appropriate controlling document.

ECC considers disturbed areas, such as naturalized detention ponds and lands heavily impacted for viewshed clearing, openspace. Mitigated wetlands compensating for disturbed wetlands do not receive greenspace credit.

Under certain conditions and program tracks, organic farms and gardens may be considered greenspace and land restored to natural conditions may qualify as greenspace. See criteria for more details.

Greyfield

A previously developed site of commercial or industrial property served by an existing infrastructure and declining economically due to high rates of vacancy, abandonment or infrastructure degradation.

Hardscaping

Inanimate elements of landscaping such as masonry or woodwork, (pathways composed of asphalt, concrete, bricks, tile, or brick patios, tile paths, wooden decks and wooden arbors. Anything used in landscaping that is not part of the softscape, i.e. plants and organic matter, can be considered a hardscape element.

Impervious Surfaces

Land area that is highly impenetrable by water, specifically rainfall and any resultant stormwater. For ECC calculations, impervious surfaces used in community infrastructure include: asphalt, concrete, and brick paving used in buildings, sidewalks, walkways, driveways, streets and pools. If using porous concrete, porous asphalt or other alternative paving materials, consult with the ECC TA to confirm ECC recognition as a pervious material.

Linear Distance

The measured distance between two points. The ECC program distinguishes 'linear distance' from 'walkable distance' depending on what is being measured.

Mid-Story/Mid-Canopy Trees

(Approx. 900 ft² of canopy at maturity): Mid-canopy trees typically reach a diameter-at-breast-height (DBH) of 10 - 25 inches and a height of 30 - 60 feet at maturity.

<https://www.atlantaga.gov/Home/ShowDocument?id=7417>

National Flood Insurance Program

A Federal program enabling property owners in participating communities to purchase insurance as a protection against flood losses.

Non-governmental organization

A not-for-profit group or association organized outside of institutionalized political structures to realize particular social objectives or serve particular constituencies.

Nephelometric Turbidity Units (NTU)

A unit of measurement for turbidity (lack of clarity) in water. A nephelometer is the instrument used to quantify the light scattered by suspended particles in the water. The greater the scattering, the higher the turbidity; therefore a low NTU would correlate with high water clarity and a high NTU value would indicate low water clarity.

Net Density

The measurement of non-residential building footage or residential dwelling units on a parcel of buildable land.

Open Space

Areas of landscaping or hardscaping which is accessible for active or passive recreation. This may include: public parks, courtyards, soccer fields, basketball courts, plazas, courtyards, village greens, greenroofs and other rooftops with landscaping and permanent furniture. Enhanced streetscapes and public facilities (YMCA's, civic buildings, etc.) are not considered open space, and are encouraged elsewhere in the program. Community pools do not count as open space area unless available to the general public.

Under certain conditions and program tracks, organic farms and gardens may be considered greenspace or openspace. See criteria for more details.

Outdoor Integrated Pest Management System

Environmentally sensitive method of managing pests which integrates a variety of ecological strategies. Such eradication approaches may include: the study of pest life cycle, food production periods, and pest habitats. The system emphasizes the least hazardous and most effective non-chemical methods for extermination and allows for minimal, judicious use of pesticides.

For more information, please visit: <http://www.epa.gov/pesticides/factsheets/ipm.htm>

Overstory Trees: Trees greater than 1,600 ft² of canopy at maturity and which typically reach a diameter-at breast- height (DBH) in excess of 25 inches and a height in excess of 60 feet at maturity.

<https://www.atlantaga.gov/Home/ShowDocument?id=7417>

Performance Category

Groupings of similar credits and program requirements by subject area. The ECC program has 5 performance categories.

Points

Quantitative measure of a credit's level of difficulty and environmental impact. Points are assigned to credits or different strategies within a credit. Points are awarded after satisfactory implementation, documentation and verification of the strategy.

Previously Developed Site

Land previously disturbed by paving or construction activity. For sites smaller than three acres, a single-platted lot qualifies the site as previously developed. For sites larger than three acres, 50% or more of the site must be covered in impervious surfacing or other land alterations related to development. Preserved natural areas and land disturbed by farming, historical clearing or filling, or other non-construction related activities do not qualify. Land with infrastructure or impervious coverage installed by the ECC project developer or development partner within the last five years does not qualify.

Primary Entrance

The principal entrance to a building expressly utilized for day-to-day pedestrian ingress and egress. The fenestration of building circulation areas such as exterior breezeways, interior hallways, courtyards and lobby areas may qualify as a primary entrance under design conditions.

Protection Plan

A map (and document if needed) outlining areas of the project site to be shielded from land disturbing activity. The protection plan may be part of the Erosion and Sedimentation Plan or Grading Plan. It may also be a stand-alone construction document. At a minimum, the plan should clearly identify fencing locations, restricted zones, protected buffers and any incentives for protection or fees for non-compliance.

Regional Comprehensive Plan

A long-range planning document that outlines the projected future development for a region. The plan is typically composed of a detailed map accompanied by goals statements and supporting data.

Restoration plan

A written plan that describes the steps required to restore bioregions, habitats and ecosystems natural to the topography, climate zone and ecology of the site. The plan should include photos and maps as needed and outline specific actions required for restoration.

Requirements

A statement describing a mandated policy, design element or development action. Each program requirement in ECC contains a purpose, criteria and verification materials statement.

Riparian Buffer

The aquatic ecosystem and the portions of the adjacent terrestrial ecosystem that directly affect, or are affected by, the aquatic environment. This includes streams, rivers, lakes and bays, as well as their adjacent side channels and wetlands. In specific cases, the riparian buffer may also include a portion of the hill slope that directly serves as streamside habitats for wildlife.

Sensitive Wildlife Habitat Mapping

A process of studying a piece of property and its surrounding ecosystem in order to identify existing wildlife species and their habitats on-site, specifically whether any of these are threatened/endangered or not. This process results in a map which should include—at a minimum—locations and descriptions of wildlife habitats and any conservation buffers recommended for protection of the habitat on-site.

Consult with the state Natural Heritage Program or Fish and Wildlife Service (FWS) Division to determine the likelihood of federally-threatened or endangered species existing on the site.

If it is determined that species are likely to exist on site, hire a qualified biologist to conduct a site analysis and produce a habitat conservation plan per the Endangered Species Act.

If it is determined that no federally-threatened or endangered species exist on site, hire a qualified biologist, work with a conservation non-governmental organization, or work with a local or state agency to produce a map of any additional wildlife habitats found on site. Clearly identify High Priority Preservation Areas.

Use either habitat map produced from this analysis to inform site design.

Street

A public thoroughfare, avenue, road, highway, boulevard, parkway, way, drive, lane, court or private easement, not including freeways, designed to accommodate all forms of transportation that provides connectivity between other thoroughfares or community amenities and which has not been specifically designed for the purpose of delivering a vehicle to a parking place.

Transferable Development Rights (TDR)

A zoning and land planning tool often used to preserve undeveloped or culturally significant areas. It is a system in which development rights can be severed from a tract of land and sold in a market transaction. The parcel from which the rights are transferred is then permanently

restricted as to future development, and the purchaser of the rights may assign them to a different parcel to gain additional density.

Total Suspended Solids (TSS) Levels

The measurement of the amount of non-dissolved solid material present in water or waste water.

Unbuildable Land

Land within the property boundary where construction cannot occur. Unbuildable land includes on-site permanently preserved greenspace or open space, critical slope areas, preserved wetlands, riparian buffers or other environmental buffers required by the ECC program or local jurisdictions.

Vehicle Miles Traveled

The number of miles driven in single occupancy vehicles.

Verification Materials

Materials submitted by project teams to indicate satisfactory credit completion.

Verification materials include but are not limited to: conceptual plans, aerial photographs, funding verification documents, permitted site plans, stormwater management plans, landscape plans, grading plans, wastewater infrastructure plan, maintenance contracts and verification letters from local jurisdiction or transit authority.

Viewshed

An area of the built or natural environment that is visible into or out of the project site from a fixed vantage point.

Voluntary Cleanup Program (VCP)

A program administered by the state, which provides programmatic alternatives, liability assistance, and remediation guidelines for state/federally designated Brownfield sites.

Walkable Distance

Linear distance of pedestrian paths, sidewalks, or roads (with speeds no greater than 15 mph). Major obstructions, such as stormwater structures, gates and steep grade changes of 15% or more, cannot be present within this distance. If path crosses a road greater than 25 mph, a pedestrian crosswalk must be present.

