

It is expected that a quorum of the Personnel Committee, Board of Public Works, Plan Commission and Administration Committee will be attending this meeting, although it is not expected that any official action of any of those bodies will be taken.

CITY OF MENASHA
Sustainability Board
City Hall-140 Main St.-Council Chambers-3rd Floor

April 22, 2008

6:30 PM

AGENDA

 [← Back](#)  [Print](#)

1. CALL TO ORDER

A. Call to Order

2. ROLL CALL/EXCUSED ABSENCES

A. Roll Call

3. MINUTES TO APPROVE-MINUTES & COMMUNICATIONS TO RECEIVE

Minutes to approve:

A. Sustainability Board, 3/13/08



[Attachments](#)

4. PUBLIC COMMENTS ON ANY MATTER OF CONCERN TO THE CITY

Five (5) minute time limit for each person

A. Public Comments

5. DISCUSSION

A. Committee size/composition and structure

B. LEED for Neighborhood Development - Overview



[Attachments](#)

6. ACTION ITEMS

A. Creation of a Mission Statement

B. Establishment of goals/project priorities

C. Natural Step - Future direction



[Attachments](#)

D. Set next meeting date

7. ADJOURNMENT

A. Adjournment

Menasha is committed to its diverse population. Our Non-English speaking population or those with disabilities are invited to contact the Clerk's Office at 967-3600 at least 24-hours in advance of the meeting so special accommodations can be made.

CITY OF MENASHA
Sustainability Board
Council Chambers, City Hall – 140 Main Street
March 13, 2008
DRAFT MINUTES

1. CALL TO ORDER

- A. The meeting was called to order at 6:35 PM by Mayor Laux.

2. ROLL CALL/EXCUSED ABSENCES

- A. MEMBERS PRESENT: Becky Bauer, Mike Dillion, Trevor Frank, Linda Stoll, Roger Kanitz
MEMBERS EXCUSED: None
OTHERS PRESENT: Mayor Laux, Alderman Merkes, CDD Greg Keil, Catherine Neiswender, Richard Mulder
- B. Select Chairperson
Roger Kanitz made a motion to cast a unanimous ballot for the appointment of Linda Stoll as chairperson of the Sustainability Board. The motion was seconded by Mike Dillion. Motion carried.

3. PUBLIC COMMENTS ON ANY MATTER OF CONCERN TO THE CITY

Five (5) minute time limit for each person

- A. No one spoke.

4. DISCUSSION ITEMS

A. Getting Started-Sustainability Discussion Led by Catherine Neiswender*

Catherine Neiswender led a discussion of the four principles of sustainability guiding the Natural Step process. Board members discussed the extent to which the city is committed to sustainability principles and what the next steps might be toward putting together a course of action. Consensus emerged on the need to focus on a specific project or outcome, but some members felt there ought to be a concurrent effort to take a more holistic approach.

There was considerable discussion about using the next phase of the Lake Park Villas development as a prototype for sustainable design.

Conducting an inventory of current practices undertaken by the respective city departments to reduce energy use or otherwise promote sustainability was embraced as a way to benchmark where the city stands on the sustainability continuum. In the future, representatives of each department may be requested to make a report to the Sustainability Board.

The committee also discussed the possible need to expand membership of the Sustainability Board to bring in specific expertise or other perspectives.

Information to be prepared for the next board meeting is to include a synopsis to LEED for neighborhood design and reference materials/maps of the Lake Park Villas development.

The next meeting will be held on Tuesday, April 22, 2008 at 6:30 PM.

5. ADJOURNMENT

- A. Motion by Roger Kanitz, seconded by Trevor Frank to adjourn at 8:45 PM.

*Additional notes from Catherine Neiswender are attached.

-----Original Message-----

From: Neiswender, Catherine [mailto:CNeiswender@co.winnebago.wi.us]

Sent: Tuesday, March 25, 2008 11:45 AM

To: Joe Laux; linda.stoll@uwsp.edu; Roger.Kanitz@kcc.com; Trevor Frank; Dillon, Michael J.; Bauer, Becky

Cc: Greg M. Keil; Don Merkes Home E-mail

Subject: Sustainability board meeting notes

3/25/08

Hello Menasha Sustainability Board,

Hope you all had a restful weekend! It was good to meet with you a couple of weeks ago. I'm attaching the flipchart notes so you can have them for your records and guidance. While I'm not available for your next meeting on the 22nd, I'm happy to work with the committee as a process leader/coach as you move ahead. Please keep me in mind!

In addition to the notes, here are some observations I had after your first meeting.

- Successful change processes towards a sustainable community use a variety of best practices that are part of the ABCD process (A-awareness, B-Baseline, C-Create a vision, D-down to action). They are vision-led, use back-casting (as opposed to fore-casting), are democratic, use a systems approach, have broad involvement, and keep it going by planning in cycles, ongoing education etc. While its good to get engaged in a local project and show some early successes, the Board should consider these best practices when moving ahead.
- I would strongly encourage the Board to partake in more general learning about The Natural Step (TNS) principles and processes, what they mean and how to apply them (the "A" part of the process). There are many opportunities for this, such as:
 - a) on-line TNS course sponsored by 'TNS Canada' – its excellent!;
 - b) do a study circle as a group with The Natural Step book and/or the Toolkit guide;
 - c) partner with your neighboring communities to do some learning;
 - d) study processes and approaches used by other communities etc).
- I can help you set up a learning system and/or lead study circles. I would also recommend that you bring the departments and committees into the process earlier than later. Again, I'm available to help with presentations to get them on board.
- In other communities, The Natural Step is applied in the departments, as well as other systems/functions in the community. For examples, see the City of Madison for how the committee identified key work areas, then developed project descriptions, many of which included ABCD (see <http://www.cityofmadison.com/mayor/Natural.html> for resources posted on the Madison site)
- The Board still had questions about its role, sideboards etc. Continue to think about your mission as a Sustainability board. If you can come to an agreed statement (e.g. – if you can fill in the blanks below), it will make your work stronger and communications more cohesive.
 - The mission of the Menasha Sustainability Board is to (do what? – broadly speaking) _____, for (whom?) _____, for the purpose of (why? To what end?) _____.
- I have some thoughts and resources on getting started by applying the 4 System Conditions of the Natural Step to an initial project (like the Lake Park Villas). Let me know if that would be helpful to you.

The first meetings are always the hardest – it'll take some time to get oriented and comfortable, so press on. Nice work everyone!

Catherine

~~~~~

Catherine Neiswender  
University of Wisconsin-Extension  
Winnebago County Community Development Educator  
James P. Coughlin Center  
625 E County Rd Y, Suite 600  
Oshkosh, WI 54901-8131  
Telephone: (920) 232-1972  
Fax: (920) 424-1277  
Email: [catherine.neiswender@ces.uwex.edu](mailto:catherine.neiswender@ces.uwex.edu)  
Website: <http://winnebago.uwex.edu>

*"University of Wisconsin, U.S. Department of Agriculture, and Wisconsin Counties cooperating. UW-Extension provides equal opportunities in employment and programming including Title IX and ADA."*  
~~~~~

Kick-off meeting of Menasha Sustainability Board, 3/13/08

Assets and interests of Board members

- a) Joe Laux – Alliance of Cities has made this a priority; is aware of ECOS; attended the November TNS workshop; Lake Park Villas Phase 3 is an opportunity to discuss affordable housing and green building (opens in April 09); potential opportunities with city fleet and public works etc
- b) Becky Bauer – experience in natural resource management and environmental science; teacher at Menasha High School; volunteer with Red Cross and experience with disaster planning; Girl Scouts and outdoor environmental education
- c) Richard Muldoon (sp?) – member of public (not board); long-time resident; interest in bike trails and downtown; gardens/composts; has interest in other home options
- d) Don Merkes – member of public (not board); involved with ECOS; interested in how being green can help save \$\$; interested in technology options
- e) Mike Dillon – employed by SCA as environmental risk management manager; participates in ECOS; is on the Town of Menasha sustainability committee; has experience with LEED for existing buildings; sponsors an environmental education grant for schools through SCA; has done wind and solar PV assessments; interested in community building and support for sustainability
- f) Roger Kanitz – employed by KC; co-leader in ECOS; has worked on some aspects of community planning with Greg K.; has done some home improvements with geothermal; is a local rep on the Valley Transit board
- g) Trevor Frank – architect with SEH; working on a LEED silver building in Menasha (UWV CAC); and LEED gold building in MN.
- h) Catherine Neiswender – Community Development Educator with UWEX in Winnebago County; facilitator for the night's meeting; experience with TNS; teaching sustainability; facilitating groups and processes; and will be attending an intensive course on facilitating eco-municipality processes in June 08.
- i) Greg Keil – City Community Development Director; developed the Nature's Way project as first foray into green and affordable housing; has interest in more of this type of housing
- j) Linda Stoll – outreach specialist with Center for Land Use Education (CLUE); experience in natural resource management; AICP certified; member of WAPA board

Questions/concerns/comments about sustainability resolution

What does the word 'endeavor' mean to us – is the City committed to sustainability, or simply involved in efforts?

- A: Mayor Joe mentioned that the resolution doesn't commit the city to anything, but rather acts as a guide

The Menasha Sustainability Board (MSB) will/may define what sustainability means for the city

How does this board fit with other city committees or departments?

- A: Staff and committees will be brought in as appropriate
- The MSB makes recommendations to the Council; the city staff/committees provide input to the Board

Will Departments get trained in TNS?

Its important not to get lost in the forest of possibilities

What is the timeframe? 20 years? 50 years? Etc

It's a good idea to do a pilot project (a low-hanging fruit project); but do so on parallel track with evaluating other opportunities

What are we doing well now? what can be incrementally changed? (CZN note – these questions are answered as part of the Baseline work in the ABCD process)

Where to start?

Look at successes in the City

Look at opportunities – short-term opportunities

Look at longer-term projects

Look at the city budget and evaluate against the 4 system conditions (TNS principles)

Work with departments

Learn a little about the community vision

Create awareness in the community

Wrap up

Group decided that it would be best to work on something 'immediate', while at the same time looking at longer term sustainability planning. One idea was to start with the Lake Park Villa project, and LEED for neighborhoods

Next meeting, Tuesday, April 22nd @ 6:30pm

PILOT VERSION



LEED for Neighborhood Development Rating System

Developed through a partnership of the Congress for New Urbanism,
Natural Resources Defense Council and the U.S. Green Building Council



Disclaimer and Notices

The U.S. Green Building Council authorizes you to view the LEED for Neighborhood Development Rating System for your individual use and to copy as-is, or in part if you reference the original document. No content may be altered. In exchange for this authorization, you agree to retain all copyright and other proprietary notices contained in the original LEED for Neighborhood Development Rating System. You also agree not to sell or modify the LEED for Neighborhood Development Rating System or to reproduce, display or distribute the LEED for Neighborhood Development Rating System in any way for any public or commercial purpose, including display on a website or in a networked environment. Unauthorized use of the LEED for Neighborhood Development Rating System violates copyright, trademark and other laws and is prohibited. All text, graphics, layout and other elements of content contained in the LEED for Neighborhood Development Rating System are owned by the U.S. Green Building Council and are protected by copyright under both United States and foreign laws.

Also, please note that none of the parties involved in the funding or creation of the LEED for Neighborhood Development Rating System, including the U.S. Green Building Council or its members, make any warranty (express or implied) or assume any liability or responsibility, to you or any third parties for the accuracy, completeness, or use of, or reliance on, any information contained in the LEED or Neighborhood Development Rating System, or for any injuries, losses or damages (including, without limitation, equitable relief) arising out of such use or reliance. As a condition of use, you covenant not to sue, and agree to waive and release the U.S. Green Building Council and its members from any and all claims, demands and causes of action for any injuries, losses or damages (including, without limitation, equitable relief) that you may now or hereafter have a right to assert against such parties as a result of your use of, or reliance on, the LEED for Neighborhood Development Rating System.

Copyright

Copyright © 2007 by the U.S. Green Building Council. All rights reserved.

Trademark

LEED® is a registered trademark of the U.S. Green Building Council.

<p>Minor changes, including only corrected typos and minor clarifications, have been made to this version that were not included in the February 2007 version of the LEED for Neighborhood Development rating system. In addition, an alternative version of GCT Credit 9 (Stomwater Management) is provided with this version. Prerequisite and credit requirements were not changed in any way that would affect a project's ability to achieve them.</p>
--

Table of Contents

INTRODUCTION	1
PROJECT CHECKLIST	4
SMART LOCATION & LINKAGE	6
SLL Prerequisite 1: Smart Location.....	6
SLL Prerequisite 2: Proximity to Water and Wastewater Infrastructure	9
SLL Prerequisite 3: Imperiled Species and Ecological Communities.....	11
SLL Prerequisite 4: Wetland and Water Body Conservation	14
SLL Prerequisite 5: Agricultural Land Conservation	17
SLL Prerequisite 6: Floodplain Avoidance	20
SLL Credit 1: Brownfields Redevelopment	23
SLL Credit 2: High Priority Brownfields Redevelopment	25
SLL Credit 3: Preferred Locations	27
SLL Credit 4: Reduced Automobile Dependence	29
SLL Credit 5: Bicycle Network	32
SLL Credit 6: Housing and Jobs Proximity	34
SLL Credit 7: School Proximity	36
SLL Credit 8: Steep Slope Protection	38
SLL Credit 9: Site Design for Habitat or Wetland Conservation	41
SLL Credit 10: Restoration of Habitat or Wetlands	44
SLL Credit 11: Conservation Management of Habitat or Wetlands	46
NEIGHBORHOOD PATTERN & DESIGN	48
NPD Prerequisite 1: Open Community	48
NPD Prerequisite 2: Compact Development.....	50
NPD Credit 1: Compact Development	52
NPD Credit 2: Diversity of Uses	54

NPD Credit 3: Diversity of Housing Types	56
NPD Credit 4: Affordable Rental Housing.....	59
NPD Credit 5: Affordable For-Sale Housing	61
NPD Credit 6: Reduced Parking Footprint	63
NPD Credit 7: Walkable Streets	65
NPD Credit 8: Street Network	69
NPD Credit 9: Transit Facilities	71
NPD Credit 10: Transportation Demand Management	73
NPD Credit 11: Access to Surrounding Vicinity.....	76
NPD Credit 12: Access to Public Spaces	78
NPD Credit 13: Access to Active Spaces	80
NPD Credit 14: Universal Accessibility	83
NPD Credit 15: Community Outreach and Involvement	86
NPD Credit 16: Local Food Production	89
GREEN CONSTRUCTION & TECHNOLOGY	92
GCT Prerequisite 1: Construction Activity Pollution Prevention.....	92
GCT Credit 1: LEED Certified Green Buildings	94
GCT Credit 2: Energy Efficiency in Buildings.....	96
GCT Credit 3: Reduced Water Use.....	101
GCT Credit 4: Building Reuse and Adaptive Reuse	104
GCT Credit 5: Reuse of Historic Buildings	106
GCT Credit 6: Minimize Site Disturbance through Site Design	108
GCT Credit 7: Minimize Site Disturbance during Construction	110
GCT Credit 8: Contaminant Reduction in Brownfields Remediation	113
GCT Credit 9: Stormwater Management	115
GCT Credit 10: Heat Island Reduction	118
GCT Credit 11: Solar Orientation	121
GCT Credit 12: On-Site Energy Generation.....	123

GCT Credit 13: On-Site Renewable Energy Sources.....	126
GCT Credit 14: District Heating & Cooling	129
GCT Credit 15: Infrastructure Energy Efficiency	131
GCT Credit 16: Wastewater Management	133
GCT Credit 17: Recycled Content in Infrastructure.....	135
GCT Credit 18: Construction Waste Management	137
GCT Credit 19: Comprehensive Waste Management.....	139
GCT Credit 20: Light Pollution Reduction	141
INNOVATION & DESIGN PROCESS	144
ID Credit 1: Innovation and Exemplary Performance	144
ID Credit 2: LEED Accredited Professional	146
DEFINITIONS	148
APPENDIX A: List of Diverse Uses	152
APPENDIX B: GCT Credit 9: Stormwater Management (February 2007 version) ..	153

Introduction

Overview

The U.S. Green Building Council (USGBC), the Congress for the New Urbanism (CNU), and the Natural Resources Defense Council (NRDC)—three organizations that represent some of the nation’s leaders among progressive design professionals, builders, developers, and the environmental community—have come together to develop a national set of standards for neighborhood location and design based on the combined principles of smart growth, new urbanism, and green building. The goal of this partnership is to establish these standards for assessing and rewarding environmentally superior development practices within the rating framework of the LEED® (Leadership in Energy and Environmental Design) Green Building Rating System™.

Unlike other LEED products that focus primarily on green building practices, with relatively few credits regarding site selection and design, LEED for Neighborhood Development places emphasis on the design and construction elements that bring buildings together into a neighborhood, and relate the neighborhood to its larger region and landscape. The work of the committee is guided by sources such as the Smart Growth Network’s ten principles of smart growth, the Charter of the New Urbanism, and other LEED rating systems. LEED for Neighborhood Development creates a label, as well as guidelines for design and decision-making, to serve as an incentive for better location, design, and construction of new residential, commercial, and mixed use developments.

The existing LEED for New Construction Rating System has a proven track record of encouraging builders to utilize green building practices, such as increasing energy and water efficiency and improving indoor air quality in buildings. It is the hope of the partnership that LEED for Neighborhood Development will have a similarly positive effect in encouraging developers to revitalize existing urban areas, reduce land consumption, reduce automobile dependence, promote pedestrian activity, improve air quality, decrease polluted stormwater runoff, and build more livable, sustainable, communities for people of all income levels.

How LEED Rating Systems Work

LEED provides rating systems that are voluntary, consensus-based, market-driven, grounded in accepted energy and environmental principles, and that strike a balance between established practices and emerging concepts. LEED rating systems are developed by committees, in adherence with USGBC policies and procedures guiding the development and maintenance of rating systems. LEED for Neighborhood Development is one of a growing portfolio of rating systems serving specific market sectors.

LEED rating systems typically consist of a few prerequisites and many credits. In order to be certified, a project must meet each prerequisite. Each credit is optional, but achievement of each credit contributes to the project’s point total. A minimum point total is required for certification, and higher point scores are required for silver, gold, or platinum LEED certification.

What is a “Neighborhood Development”?

The rating system is designed to certify exemplary development projects that perform well in terms of smart growth, new urbanism, and green building. Projects may constitute whole neighborhoods, fractions of neighborhoods, or multiple neighborhoods. Smaller, infill projects that are single use but complement

existing neighboring uses should be able to earn certification as well as larger and mixed use developments.

The LEED for Neighborhood Development Pilot Program

Up to 120 projects in total will be selected to be a part of the pilot program. The objective of the pilot program is to ensure that the rating system is practical for application and is an effective tool for recognizing projects that incorporate smart growth, new urbanist, and green building practices. The LEED for Neighborhood Development Core Committee will assess the experience gained from the pilot program in order to revise the rating system for public comment and ballot.

LEED for Neighborhood Development's principal aim is to improve land-use patterns, neighborhood design, and technology in the United States. However, on a very limited basis, the pilot program may test the applicability of the rating system in non-United States settings as well.

In terms of eligibility for the pilot program, there is no minimum or maximum for project size and no strict definition for what would comprise a neighborhood. The only requirement is that projects must be able to meet all prerequisites and anticipate that the minimum number of points through credits to achieve certification can be earned.

Certification Process

LEED for Neighborhood Development will certify projects that may have significantly longer construction periods than single buildings, and as a result the standard LEED certification process needed to be modified. The core committee wanted to be able to provide developers of certifiable projects with some form of approval even at the early, pre-entitlement stage. They also wanted to ensure that great plans became great real-life projects. With these goals in mind, the core committee created the following three-stage certification process:

Optional Pre-review (Stage 1)

This stage is available but not required for projects at any point before the entitlement process begins. If pre-review approval of the plan is achieved, USGBC will issue a letter stating that if the project is built as proposed, it will be able to achieve LEED for Neighborhood Development certification. The purpose of this letter is to assist the developer in building a case for entitlement among land use planning authorities, as well as a case for financing and occupant commitments.

Certification of an Approved Plan (Stage 2)

This stage is available after the project has been granted any necessary approvals and entitlements to be built to plan. Any changes to the pre-reviewed plan that could potentially affect prerequisite or credit achievement would be communicated to USGBC as part of this submission. If certification of the approved plan is achieved, USGBC will issue a certificate stating that the approved plan is a LEED for Neighborhood Development Certified Plan and will list it as such on the USGBC website.

Certification of a Completed Neighborhood Development (Stage 3)

This step takes place when construction is complete or nearly complete. Any changes to the certified approved plan that could potentially affect prerequisite or credit achievement would be communicated to USGBC as part of this submission. If certification of the completed neighborhood development is achieved, USGBC will issue plaques or similar awards for public display at the project site and will list it as such on the USGBC website.

Similar to other LEED certification processes, projects will be provided with a more thorough explanation of credit topics and calculations in a reference guide. Project teams will be required to submit documentation for each credit as described in the “submittal” sections of the rating system. Pilot participants will be given submittal templates to fill out as part of documentation after they register their project. The templates will assist projects in providing the requested calculations. The submittal section included with each credit in the rating system is subject to modification during the course of the pilot program. During the pilot program, project teams are encouraged to suggest replacement documentation that clearly verifies that the requirements have been met but may be easier to access or produce than the items listed below. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

Acknowledgements

The partnership would like to thank the following funders for their support of the creation of LEED for Neighborhood Development (listed alphabetically):

The Blue Moon Fund
Centers for Disease Control
EDAW
U.S. EPA Office of Brownfields Cleanup and Redevelopment
U.S. EPA Development, Community, and Environment Division
The Johnson Foundation
National Endowment for the Arts

The pilot version of the LEED for Neighborhood Development Rating System has been made possible because of the efforts of many dedicated volunteers, staff members, consultants, and others in the USGBC, CNU, and NRDC communities. The partnership extends its deepest gratitude to all of these individuals, and especially to the LEED for Neighborhood Development Core Committee members selected by the partners, for their tireless volunteer efforts in developing this rating system. They are:

Doug Farr (Chair), Farr Associates
Kaid Benfield (Vice-Chair), Natural Resources Defense Council
Bill Browning, Browning + Bannon LLC
Victor Dover, Dover, Kohl & Partners Town Planning
Sharon Feigon, Center for Neighborhood Technology
Rebecca Flora, Green Building Alliance
Bert Gregory, Mithun Architects + Designers + Planners
Daniel Hernandez, Topology, LLC
Melissa Knott, Forest City Stapleton, Inc.
Jessica Cogan Millman, Coalition for Smarter Growth
Susan Mudd, Congress for the New Urbanism Board of Directors
John Norquist, Congress for the New Urbanism
Michael Pawlukiewicz, Urban Land Institute
Shelley Poticha, Reconnecting America
Tom Richman, Tom Richman
Elizabeth Schilling, Urban Associates
Laura Watchman, Defenders of Wildlife
Sandy Wiggins, Consilience, LLC

Project Checklist

Smart Location & Linkage

30 Possible Points

Prereq 1	Smart Location	Required
Prereq 2	Proximity to Water and Wastewater Infrastructure	Required
Prereq 3	Imperiled Species and Ecological Communities	Required
Prereq 4	Wetland and Water Body Conservation	Required
Prereq 5	Agricultural Land Conservation	Required
Prereq 6	Floodplain Avoidance	Required
Credit 1	Brownfield Redevelopment	2
Credit 2	High Priority Brownfields Redevelopment	1
Credit 3	Preferred Locations	2-10
Credit 4	Reduced Automobile Dependence	1-8
Credit 5	Bicycle Network	1
Credit 6	Housing and Jobs Proximity	3
Credit 7	School Proximity	1
Credit 8	Steep Slope Protection	1
Credit 9	Site Design for Habitat or Wetlands Conservation	1
Credit 10	Restoration of Habitat or Wetlands	1
Credit 11	Conservation Management of Habitat or Wetlands	1

Neighborhood Pattern & Design

39 Possible Points

Prereq 1	Open Community	Required
Prereq 2	Compact Development	Required
Credit 1	Compact Development	1-7
Credit 2	Diversity of Uses	1-4
Credit 3	Diversity of Housing Types	1-3
Credit 4	Affordable Rental Housing	1-2
Credit 5	Affordable For-Sale Housing	1-2
Credit 6	Reduced Parking Footprint	2
Credit 7	Walkable Streets	4-8
Credit 8	Street Network	1-2
Credit 9	Transit Facilities	1
Credit 10	Transportation Demand Management	2
Credit 11	Access to Surrounding Vicinity	1
Credit 12	Access to Public Spaces	1
Credit 13	Access to Active Public Spaces	1
Credit 14	Universal Accessibility	1
Credit 15	Community Outreach and Involvement	1
Credit 16	Local Food Production	1

Green Construction & Technology

31 Possible Points

Prereq 1	Construction Activity Pollution Prevention	Required
Credit 1	Certified Green Buildings	1-3
Credit 2	Energy Efficiency in Buildings	1-3
Credit 3	Reduced Water Use	1-3
Credit 4	Building Reuse and Adaptive Reuse	1-2
Credit 5	Reuse of Historic Buildings	1

Credit 6	Minimize Site Disturbance through Site Design	1
Credit 7	Minimize Site Disturbance during Construction	1
Credit 8	Contaminant Reduction in Brownfields Remediation	1
Credit 9	Stormwater Management	1-5
Credit 10	Heat Island Reduction	1
Credit 11	Solar Orientation	1
Credit 12	On-Site Energy Generation	1
Credit 13	On-Site Renewable Energy Sources	1
Credit 14	District Heating and Cooling	1
Credit 15	Infrastructure Energy Efficiency	1
Credit 16	Wastewater Management	1
Credit 17	Recycled Content in Infrastructure	1
Credit 18	Construction Waste Management	1
Credit 19	Comprehensive Waste Management	1
Credit 20	Light Pollution Reduction	1

Innovation & Design Process

6 Possible Points

Credit 1	Innovation in Design	1-5
Credit 2	LEED Accredited Professional	1

Project Totals

106 Possible Points

Certification Levels:

Certified 40-49 points

Silver 50-59 points

Gold 60-79 points

Platinum 80-106 points

Smart Location & Linkage

SLL Prerequisite 1: Smart Location

Required

Intent

Encourage development within and near existing communities or public transportation infrastructure. Reduce vehicle trips and miles traveled and support walking as a transportation choice.

Requirements

OPTION 1

Locate the **project** on an **infill site**;

OR

OPTION 2

Locate the project near existing or planned **adequate transit service** so that at least 50% of dwelling units and business entrances within the project are within ¼ mile **walk distance** of bus or streetcar stops or within ½ mile walk distance of bus rapid transit stops, light or heavy passenger rail stations and ferry terminals. In the case of planned service, show that the relevant transit agency has committed in a legally binding warrant that **adequate transit service** will be provided at or before the beginning of the transit agency's first service year after 50% of the dwelling units and/or businesses within the project are occupied and has identified all funding necessary to do so;

OR

OPTION 3

Locate the project near existing neighborhood shops, services, and facilities so that the **project boundary** is within ¼ mile walk distance of at least four, or within ½ mile walk distance of at least 6, of the **diverse uses** defined in Appendix A. Uses may not be counted in two categories, e.g an office building may be counted only once even if it is also a major employment center. A mixed use building containing several uses as distinct enterprises would count each as a separate use, but no more than half of the minimum number of diverse uses can be situated in a single building. A single retail store of any type (such as a big box retail store that sells both clothing and household goods) may only be counted once even if it sells products associated with multiple use types;

OR

OPTION 4

Locate the project within a region served by a Metropolitan Planning Organization (MPO) and within a transportation analysis zone for which MPO research demonstrates that the average annual home-based and/or non-home-based rate of **Vehicle Miles Traveled (VMT)** per capita is lower than the average annual rate of the metropolitan region as a whole. The research must be derived from transportation

surveys conducted within ten years of the date of submission for LEED for Neighborhood Development certification;

OR

OPTION 5

Locate the project within a region served by a Metropolitan Planning Organization (MPO) and demonstrate through peer-reviewed analysis that the average annual home-based and/or non-home-based rate of Vehicle Miles Traveled (VMT) per capita of the project will be lower than the average annual rate shown by MPO research for the metropolitan region as a whole. The MPO research must be derived from transportation surveys conducted within ten years of the date of submission for LEED for Neighborhood Development certification. The analysis prepared for the project must be conducted by a qualified transportation professional and reviewed and supported by a second qualified transportation professional who is not affiliated with either the sponsor of the project or the first analyst.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

Option 1:

- ☐ A map of the vicinity demonstrating that the project is located on an infill site.

Option 2:

- ☐ A site and/or vicinity map showing all dwelling units and relevant building entrances, transit stops, and walking routes to those stops.
- ☐ A table of walk distances between each dwelling unit or business entrance and the closest transit stop, and a calculation of the percentage of dwelling units and business entrances that lie within the specified distances.
- ☐ Schedules or a brief narrative indicating the frequency and type of transit available.
- ☐ For planned transit routes, provide documents from the relevant transit authority indicating when service will be instituted and the source of funding.

Option 3:

- ☐ A site and/or vicinity map showing the project's boundary and walking routes to any uses listed in Appendix A.

- ❑ A table of walk distances between the project boundary and each relevant use listed in Appendix A.

Option 4:

- ❑ Excerpts of relevant MPO research.

Option 5:

- ❑ Confirmation of which MPO the project is located within.
- ❑ VMT analysis, with relevant conclusions highlighted, and the sources of peer-review listed.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to prerequisite requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to prerequisite requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2.

Smart Location & Linkage

SLL Prerequisite 2: Proximity to Water and Wastewater Infrastructure Required

Intent

Encourage new development within and near existing communities in order to reduce multiple environmental impacts caused by sprawl. Conserve natural and financial resources required for construction and maintenance of infrastructure.

Requirements

OPTION 1

Locate the **project** on a site served by existing water and wastewater infrastructure. Replacement or other on-location improvements to existing infrastructure are considered *existing* for the purpose of achieving this option;

OR

OPTION 2

Locate the project within a legally adopted planned water and wastewater service area and provide new water and wastewater infrastructure for the project.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

Option 1

- ☐ A site and/or vicinity map indicating the location of existing water and wastewater infrastructure.

Option 2

- ❑ A map showing the planned water and wastewater service areas, and/or a letter from the relevant public authority stating that the project site lies within planned water and wastewater service areas.
- ❑ A brief narrative explaining the new infrastructure that the project team or sponsor commits to providing or funding if the project is built.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to prerequisite requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to prerequisite requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2.

Smart Location & Linkage

SLL Prerequisite 3: Imperiled Species and Ecological Communities Required

Intent

Protect imperiled species and ecological communities.

Requirements

Check with the state Natural Heritage Program, and any local wildlife agencies to determine if species listed under the federal Endangered Species Act, the state's endangered species act, or species or ecological communities classified by NatureServe as G1 (critically imperiled) or G2 (imperiled), have been found on the site or have a high likelihood of occurring on the site due to the presence of suitable habitat and nearby occurrences. If no such species have been found or have a high likelihood of being present, the prerequisite is achieved. If any such species have been found or have a high likelihood of being present, meet the requirements of Option 1 or Option 2 set forth below.

OPTION 1

Comply with an approved Habitat Conservation Plan (HCP) under the Endangered Species Act for each identified species or ecological community;

OR

OPTION 2

If no approved HCP exists for an identified species or ecological community, then coordinate with the state's Natural Heritage Program or fish and wildlife agency to perform adequate surveys of imperiled species and ecological communities. If a survey finds that an imperiled species or ecological community is present, the project applicant shall do the following:

- a. Work with a qualified biologist, a non-governmental conservation organization or the appropriate state, regional or local agency to identify and map the geographic extent of the habitat and identify an appropriate buffer of no less than 100 feet around the habitat that ensures the protection of the imperiled species or ecological community.
- b. Protect the habitat and buffer or setback area from development in perpetuity by donating or selling the land or a conservation easement on the land to an accredited land trust or relevant public agency.
- c. Work with ecologists to analyze the threats from development of the proposed project and develop a management plan that eliminates or significantly mitigates the identified threats.

Additional Notes

G1 species are critically imperiled; at very high risk of extinction globally due to extreme rarity (often five or fewer populations), very steep declines, or other factors.

G2 species are imperiled; at high risk of extinction globally due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.

NatureServe (www.natureserve.org) is a non-profit conservation organization that provides the scientific information and tools needed to help guide effective conservation action. It represents an international network of biological inventories—known as natural heritage programs or conservation data centers—operating in all 50 U.S. states, Canada, Latin America and the Caribbean. “G1” and “G2” are part of a classification system developed in the early 1970s by the Nature Conservancy's network of natural heritage programs in every state. NatureServe currently maintains the network of natural heritage program, the classification system, and the data on biodiversity. NatureServe uses a number of criteria in assessing the status of species, including the number of populations, the size of populations, the viability of the species occurrences, the trends in population numbers, and the threats to species.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

All Options

- ❑ Results of inquiries to the state Natural Heritage Program and any local wildlife agencies as to whether listed endangered species or G1 or G2 ecological communities occur or have a high likelihood of occurring on the project site.

Option 1

- ❑ A map showing the geographic extent of the HCP and the project's location within it.
- ❑ A brief narrative describing how the project will meet the requirements of the HCP.

Option 2

- ❑ Information about the site received from the relevant natural heritage program or agency.
- ❑ The results of site surveys.
- ❑ If imperiled species or ecological communities are found, submit a) a site plan which delineates imperiled species habitat in relation to the project; b) a letter from the

accredited land trust or relevant public agency stating that a transfer of land rights for the habitat and buffer has taken place or will take place if the project is built, such that these areas will be protected in perpetuity; and c) a brief narrative explaining how imperiled species and ecological communities will be protected.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to prerequisite requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to prerequisite requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to prerequisite requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2.

Smart Location & Linkage

SLL Prerequisite 4: Wetland and Water Body Conservation Required

Intent

Conserve water quality, natural hydrology and habitat and preserve biodiversity through conservation of water bodies or wetlands.

Requirements

OPTION 1 – FOR SITES WITH NO WETLANDS OR WATER BODIES

Locate the **project** on a site that includes no **wetlands**, **water bodies**, or land within 100 feet of these areas;

OR

OPTION 2 – FOR PREVIOUSLY DEVELOPED SITES WITH WETLANDS/WATER BODIES

Locate the project on a **previously developed site** where the area within a 1 mile radius from the perimeter of the site has either a) an average **street grid density** of at least 30 centerline miles per square mile, or b) an average built **density** of at least 30 dwelling units per acre for any residential components and 1.5 **FAR** for any non-residential components. If local, state, and federal regulations permit impacts to any on-site wetlands, water bodies, or buffer land that is within 100 feet of these areas, such impacts must be compensated by on-site or off-site wetland restoration of equal or greater amounts;

OR

OPTION 3 – FOR ALL OTHER SITES

If the project is located on a site that includes wetlands, water bodies, or land within 100 feet of these areas, and if local, state, and federal regulations permit impacts to any on-site wetlands, water bodies, or buffer land that is within 100 feet of these areas, limit any impacts to less than the percentage of these areas reflected in either one of the two following tables, and compensate by on-site or off-site wetland restoration of equal or greater amounts. The portion of the site that is impacted must incorporate stormwater best management practices within the impacted area to infiltrate, re-use, or evapotranspire at least 90% of the average annual rainfall or 1” of rainfall from 75% of the **development footprint** within the impacted area.

Street grid density within a 1 mile radius from the perimeter of the site boundary	Percentage of on-site impacts allowed
>20	15
10-20	10
<10	5

Residential density (DU/acre)	Non-residential density (FAR)	Percentage of on-site impacts allowed
>20	>1.0	15
10-20	.75 - 1.0	10
< 10	< .75	5

For all Options, minor development within the buffer may be undertaken in order to enhance appreciation for wetlands and water bodies. Such development may only include minor path-ways, limited pruning and tree removal for safety, habitat management activities, educational structures not exceeding 200 square feet, and small clearings for picnic tables, benches, and non-motorized recreational water crafts.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

Option 1

- ❑ A site and/or vicinity map demonstrating that there are no wetlands, water bodies, or land within 100 feet of these areas.

OR

- ❑ Declaration that there are no wetlands or water bodies.

Options 2 and 3

- ❑ A site and/or vicinity map showing a) any previously developed areas of the site; b) the street grid density or built density of the area within a 1 mile radius of the perimeter of the project site; and c) the construction impact zone; and d) the location of any wetlands, water bodies, or land within 100 feet of these areas.
- ❑ A calculation of either street grid density or built density within a 1 mile radius of the perimeter of the project site.
- ❑ If on-site impacts occur, a brief narrative describing the planned compensating wetland restoration activities, including the size of the impacted wetlands and of the restored wetlands. For Option 3, also include a narrative describing the stormwater best management practices employed and the amount of rainfall that will be captured.

Option 3

- ❑ A site plan indicating the portion of the site that is impacted, and the location of any BMPs.

- ❑ A written commitment to incorporate BMPs within the impacted area to meet the requirements if the project is built.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to prerequisite requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to prerequisite requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

Options 2 and 3

- ❑ If wetland restoration activities took place, either a photograph, diagram, or a brief description of the resulting areas.

Option 3

- ❑ For portions of the site where BMPs were required, a calculation of either 90% of the average annual rainfall or 1” of rainfall that occurs on the project’s development footprint and other effectively impervious areas.
- ❑ A calculation of the percentage of the development footprint for which runoff is infiltrated, re-used, or evapotranspired.

Case 3B: Change since Stage 2

If project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Smart Location & Linkage

SLL Prerequisite 5: Agricultural Land Conservation Required

Intent

Preserve irreplaceable agricultural resources by protecting prime and unique farmland and forest lands from development.

Requirements

OPTION 1

Locate the **project** such that the site contains no more than 25% **prime soils**, **unique soils**, or soils of state significance as identified in a state Natural Resources Conservation Service soil survey;

OR

OPTION 2

Locate the project such that it meets the requirements specified in Options 1, 2, or 3, of SLL Prerequisite 1;

OR

OPTION 3

Locate the project such that it is within a designated receiving area for development rights under a publicly administered farmland protection program that provides for the transfer of development rights from lands designated for conservation to lands designated for development;

OR

OPTION 4 – FOR REGIONS WITH AN ABUNDANCE OF PRIME AGRICULTURAL LAND

If the project is located within a metropolitan or micropolitan statistical area for which 75% or more of the total vacant land, including **infill sites**, is covered by prime soils, unique soils, or soils of state significance, and is on an **adjacent site**, then the prerequisite is not applicable. If the project does not lie in an established metropolitan or micropolitan statistical area, then the county boundary may serve for the purposes of the calculation.

Additional Notes

The Natural Resources Conservation Service (NRCS) is responsible for identifying prime and unique soils, and they make detailed soil surveys and maps available for every county in the United States. NRCS data are available for download to GIS mapping programs.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

Option 1

- ☐ A site and/or vicinity map indicating the location of any prime or unique soils on the site.

OR

- ☐ Declaration that there are no prime or unique soils on the site.
- ☐ If any prime, unique, or state significant soils occur on the site, a calculation of the percentage of the site area that they cover.

Option 2

- ☐ No additional documentation necessary.

Option 3

- ☐ A brief description and/or map indicating the receiving area for development rights.

Option 4

- ☐ Data and/or a map showing that 75% of the total vacant land in the metropolitan or micropolitan statistical area (or county) is covered by prime soils, unique soils, or soils of state significance.
- ☐ A site and/or vicinity map showing that the project site is an adjacent site.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to prerequisite requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to prerequisite requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

Case 3B: Change since Stage 2

If project conditions have changed with respect to prerequisite requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Smart Location & Linkage

SLL Prerequisite 6: Floodplain Avoidance Required

Intent

Protect life and property, promote open space and habitat conservation, and enhance water quality and natural hydrological systems.

Requirement

OPTION 1- FOR SITES WITH NO 100-YR FLOODPLAINS

Locate on a site that does not contain any land within the 100-year floodplain as defined and mapped by the Federal Emergency Management Agency or state or local floodplain management entity, whichever has been done most recently;

OR

OPTION 2- FOR INFILL AND PREVIOUSLY DEVELOPED SITES

Locate the **project** on an **infill site** or a **previously developed site** and follow the National Flood Insurance Program (NFIP) requirements for developing any portions of the site that lie within the 100-year floodplain as defined and mapped by the Federal Emergency Management Agency or state or local floodplain management entity, whichever has been done most recently;

OR

OPTION 3- FOR ALL OTHER SITES

For projects where part(s) of the site is located within the 100-year floodplain as defined and mapped by the Federal Emergency Management Agency or state or local floodplain management entity, whichever has been done most recently, develop only on portions of the site that are not in the 100-year floodplain or on portions that have been previously developed. Previously developed portions in the floodplain must be developed according to the NFIP requirements.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

Option 1

- ❑ A site and/or vicinity map indicating that the site contains no land within the 100-year floodplain.

OR

- ❑ Declaration that the site contains no land within the 100-year floodplain.

Option 2

- ❑ A site and/or vicinity map indicating that the project is an infill site or areas that are previously developed.
- ❑ If any portion of the site lies within the 100-year floodplain, submit a brief narrative describing how the NFIP requirements will be met for that portion.

Option 3

- ❑ A site and/or vicinity map indicating where new development will take place, areas that are previously developed, and the boundaries of the 100-year floodplain.
- ❑ If any portion of the site that is being redeveloped lies within the 100-year floodplain, submit a brief narrative describing how the NFIP requirements will be met for that portion.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to prerequisite requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to prerequisite requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to prerequisite requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2.

Smart Location & Linkage

SLL Credit 1: Brownfields Redevelopment

2 Points

Intent

Encourage the reuse of land by developing sites where development is complicated by environmental contamination, reducing pressure on undeveloped land.

Requirements

Locate **project** on a site, part or all of which is documented as contaminated (by means of an ASTM E1903-97 Phase II Environmental Site Assessment or a local Voluntary Cleanup Program) OR on a site defined as a **brownfield** by a local, state or federal government agency;

AND

Remediate site contamination such that the controlling public authority approves the protective measures and/or clean-up as effective, safe, and appropriate for the future use of the site.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ☐ Confirmation of whether any part of the project site was determined contaminated by means of an ASTM E1903-97 Phase II Environmental Site Assessment or defined as a brownfield by a local, state, or federal agency.
- ☐ Narrative describing the site contamination and remediation efforts undertaken or to be undertaken by the project.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ☐ Confirmation from the controlling public authority that it has approved the remediation as effective, safe, and appropriate for the future use of the site.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Smart Location & Linkage

SLL Credit 2: High Priority Brownfields Redevelopment

1 Point

Intent

Encourage the cleanup of contaminated **brownfields** sites in areas targeted for redevelopment.

Requirements

Earn SLL Credit 1: Brownfields Redevelopment, using a site that is in one of the following areas:

- Federal Empowerment Zone
- Federal Enterprise Community
- Federal Renewal Community
- Communities with Official Recognition (OR) from the Department of Justice for their Weed and Seed Strategy
- Qualified Low-Income Communities (LICs) as defined by the New Markets Tax Credit (NMTC) Program of the U.S. Department of the Treasury - Community Development Financial Institutions Fund (CDIF).

Brownfield sites in areas identified by state level equivalent programs to those listed above will also qualify.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ☐ Documentation demonstrating that the site lies within one of the listed zones or communities.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2.

Smart Location & Linkage

SLL Credit 3: Preferred Locations

2 to 10 Points

Intent

Encourage development within existing communities and developed places to reduce multiple environmental harms associated with sprawl. Reduce development pressure beyond the limits of existing development. Conserve natural and financial resources required for construction and maintenance of infrastructure.

Requirements

Locate the **project** in one of the following locations that also earn at least one point for **street grid density** according to the calculation below:

- An **infill site** that is also a **previously developed site** (6 points)
- An infill site that is not a previously developed site (4 points)
- An **adjacent site** that is also a previously developed site (3 points)
- A previously developed site that is not an adjacent or infill site (2 points)
- An adjacent site that is not a previously developed site (1 point)

AND

Calculate the street grid density (in street centerline miles per square mile) within a 1 mile radius from the perimeter of the site boundary. Points are added to the above points according to the following street grid density:

- 40 centerline miles per square mile or greater (4 points)
- 30-39 centerline miles per square mile (3 points)
- 20-29 centerline miles per square mile (2 points)
- 10-19 centerline miles per square mile (1 point)

No points are available under this credit for sites that are not either 1) an adjacent site, 2) an infill site, or 3) a previously developed site.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ☐ A map of the vicinity demonstrating that the project is located on one or more of the following: 1) an infill site; 2) an adjacent site; or 3) a previously developed site.
- ☐ A map of the vicinity showing the street grid density of the area within a 1 mile radius of the perimeter of the project site.
- ☐ A calculation of the street grid density within a 1 mile radius of the perimeter of the project site.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2.

Smart Location & Linkage

SLL Credit 4: Reduced Automobile Dependence

1 to 8 Points

Intent

Encourage development in locations that exhibit superior performance in providing transportation choices or otherwise reducing motor vehicle use.

Requirements

OPTION 1

Locate **project** on a site with transit service of 20 or more easily accessible transit rides per week day. The number of points available for increasing transit service is indicated in the table below. The total number of rides available during weekdays is defined as the number of buses or streetcars stopping within a ¼ mile **walk distance** of at least 50% of the project's dwellings and business entrances, and the number of bus rapid transit buses, light rail trains, heavy passenger rail, and ferries stopping within a ½ mile walk distance of at least 50% of the project's dwellings and business entrances;

Total rides available per weekday	Points earned
20 – 59	2
60 – 99	3
100 – 224	4
225 – 349	5
350 – 499	6
500 or more	7

OR

OPTION 2

Locate project within a region served by a Metropolitan Planning Organization AND within a transportation analysis zone where annual **Vehicle Miles Traveled (VMT)** per capita or single occupancy vehicle (SOV) driving mode share has been demonstrated by MPO research derived from a household transportation survey to be no more than 80% of the average of the metropolitan region as a whole. The research must be derived from transportation surveys conducted within ten years of the date of submission for LEED for Neighborhood Development certification. Additional credit may be awarded for increasing levels of performance, as indicated;

Percent of average regional per capita VMT or SOV mode share	Points earned
71% to 80%	2
61% to 70%	3
51% to 60%	4
41% to 50%	5
31% to 40%	6
30% or less	7

OR

OPTION 3

Locate the project such that 50% of the dwelling units and business entrances are within a ¼ mile walk distance of at least one vehicle that is available through a vehicle-sharing program, and publicize the availability and benefits of the vehicle-sharing program to project occupants. If the project will add more than 100 dwelling units and/or employees to the neighborhood, at least one additional vehicle for every 100 dwelling units and/or employees must be available and the parking space must be dedicated as part of the project. Where new vehicle locations are created, a vehicle share program must commit to providing a vehicle to the location for at least three years. (1 point)

Points earned under Options 1 and 2 may not be combined. A point from Option 3 may be earned independently, or be added to those earned under Options 1 and 2 for a maximum of 8 points.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

Option 1

- ☐ A site and/or vicinity map showing all relevant dwelling units and building entrances, transit stops, and walking routes to those stops.
- ☐ Schedules or a brief narrative indicating the frequency and type of transit available.
- ☐ A list of transit stops that lie within the specified walk distance of 50% of the project's dwelling units and business entrances.

- ❑ A calculation showing the total rides available per weekday.

Option 2

- ❑ Excerpts of relevant MPO research.

Option 3

- ❑ A site and/or vicinity map showing all relevant building entrances, shared vehicles, and walking routes to those vehicles.
- ❑ A table of walk distances between each dwelling unit and/or business entrance and the closest shared vehicle, and a calculation of the percentage of dwelling units and business entrances that lie within the specified distances.
- ❑ A brief narrative describing how the availability of the vehicle-sharing program will be publicized to project occupants.
- ❑ If the project adds more than 100 dwelling units or employees to the neighborhood, submit calculations showing how many additional vehicles are required and indicate on the site plan where any required parking spaces are dedicated within the project.
- ❑ If a new vehicle location is created to meet the requirements, submit a letter from the vehicle-sharing program stating its commitment to provide a vehicle at that location for at least 3 years.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2.

Smart Location & Linkage

SLL Credit 5: Bicycle Network

1 Point

Intent

To promote bicycling and transportation efficiency.

Requirements

Design or locate the **project** such that 50% of the dwelling units and business entrances are within 3 miles of at least four or more of the diverse uses listed in Appendix A using an existing **biking network** and/or a biking network that will be completed as part of the project (3 mile distance is measured along the biking network, not as a straight radius);

AND

For any non-residential buildings and multifamily residential buildings that are part of the project, provide bicycle parking spaces or storage for a capacity of no less than 15% of the off-street parking space capacity provided for cars for those buildings.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ☐ A site and/or vicinity map indicating the relevant building entrances, diverse uses listed in Appendix A, and biking network.
- ☐ A table of biking distances between each dwelling unit or business entrance and each relevant use listed in Appendix A, and a calculation of the percentage of dwelling units and business entrances that lie within the specified distance.
- ☐ If non-residential buildings or multifamily residential buildings are included in the project, submit a calculation of the required bicycle parking spaces and indicate their location on the site plan.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2.

Smart Location & Linkage

SLL Credit 6: Housing and Jobs Proximity

3 Points

Intent

Encourage balanced communities with a diversity of uses and employment opportunities. Reduce energy consumption and pollution from motor vehicles by providing opportunities for shorter vehicle trips and/or use of alternative modes of transportation.

Requirements

OPTION 1

Include a residential component equaling at least 25% of the **project's** total building square footage, and locate and/or design the project such that the center is within a 1/2 mile **walk distance** of a number of **pre-project** jobs equal to or greater than 50% of the number of dwelling units in the project;

OR

OPTION 2

Include a non-residential component equaling at least 25% of the project's total building square footage, and locate on an **infill** site whose center is within a 1/2 mile walk distance of an existing and operational rail transit stop, and within a 1/2 mile walk distance of a number of existing dwelling units equal to or greater than 50% of the number of new jobs created as part of the project.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

Option 1

- ☐ A calculation demonstrating that at least 25% of the project's built square footage is residential.

- ❑ A site and/or vicinity map showing the location of relevant dwelling units within the project, nearby pre-project jobs, and walking routes to those jobs.
- ❑ A calculation showing that the number of pre-project jobs is equal to or greater than 50% of the number of dwelling units.

Option 2

- ❑ A calculation demonstrating that at least 25% of the project's built square footage is non-residential.
- ❑ A site and/or vicinity map demonstrating that the project site is an infill site, and indicating the location of the relevant rail transit stop, existing dwelling units, new jobs created as part of the project, and walking routes to the transit stop and dwelling units.
- ❑ A calculation showing that the number of pre-project jobs is equal to or greater than 50% of the number of dwelling units.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate "No change since Stage 1" on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate "No change since Stage 2" on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2.

Smart Location & Linkage

SLL Credit 7: School Proximity

1 Point

Intent

Promote public health through physical activity by facilitating walking to school. Promote community interaction and engagement.

Requirements

Include a residential component in the **project** that constitutes at least 25% of the project's total building square footage; and locate or design the project so that at least 50% of the project's dwelling units are within ½ mile **walk distance** of an existing or planned school.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A calculation demonstrating that at least 25% of the project's square footage is residential.
- ❑ A site and/or vicinity map showing the relevant school, dwelling units, and walking routes.
- ❑ A table of walk distances between each dwelling unit the relevant school, and a calculation of the percentage of dwelling units that lies within the specified distance.
- ❑ If the school is planned rather than existing, submit a letter signed by the school district or academic institution confirming that a school will be constructed at the identified location.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2.

Smart Location & Linkage

SLL Credit 8: Steep Slope Protection

1 Point

Intent

Minimize erosion to protect habitat and reduce stress on natural water systems by preserving steep slopes in a natural, vegetated state.

Requirements

OPTION 1

Avoid disturbing portions of **project** sites that have **pre-project** slopes greater than 15%;

OR

OPTION 2- FOR PREVIOUSLY DEVELOPED SITES ONLY

On portions of project sites with pre-project slopes greater than 15%:

- a. treat any fractions of the site that have not been previously developed by complying with the requirements for sites that are not previously developed set forth in Option 3;

OR

- b. restore **native plants** or **adapted plants** to 100% of any **previously developed** slopes over 40%; 60% of any previously developed slopes between 25%-40%; and 40% of any previously developed slopes between 15%-25%;

OR

OPTION 3

On portions of project sites with pre-project slopes greater than 15% that are not previously developed sites:

- do not disturb slopes greater than 40% and do not disturb portions of the project site within 50 feet of the top of the slope, and 75 feet from the **toe of the slope**;
- limit development to no more than 40% of slopes between 25%-40%, and to no more than 60% of slopes between 15%-25%.
- locate development such that the percentage of the **development footprint** that is on pre-project slopes less than 15% is greater than the percentage of **buildable land** that has pre-project slopes less than 15%.

For all three options, those portions of project sites with slopes up to 20 feet in elevation (toe to top) that are more than 30 feet in any direction from another slope greater than 15% are exempt from the requirements, although more restrictive local regulations may apply.

For Options 2 and 3, develop **CC&Rs**, development agreements, or other binding documents that will protect the specified steep slope areas in perpetuity.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

All Options

- ❑ Topographic drawings of the project site indicating slopes, any areas that are previously developed, and the areas planned for development or redevelopment.

Option 1

- ❑ Declaration that there are no pre-project slopes greater than 15%.

Option 2a

- ❑ Calculations showing that portions of the site that have not been previously developed are complying with the percentage requirements set forth in Option 3.

Option 2b

- ❑ A site plan indicating areas planned for restoration (or indicate these areas on the topographic drawings).
- ❑ A list of plants to be used.

Option 3

- ❑ Calculations showing that the site is complying with the percentage requirements.

Options 2a and 3

- ❑ A copy of, or a written commitment to create, any necessary CC&Rs, development agreements, or other binding documents that will restrict development around slopes according to the relevant credit requirements. If jurisdictional regulations provide for these restrictions, a copy of the relevant passages can be substituted.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ☐ For Options 2a and 3, if written commitments to create copies of the required agreements were submitted previously, submit a copy of the actual agreement(s).
- ☐ For Option 2b, either a photograph, diagram, or a brief description of the restored areas.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Smart Location & Linkage

SLL Credit 9: Site Design for Habitat or Wetland Conservation

1 Point

Intent

Conserve native wildlife habitat, wetlands and water bodies.

Requirements

OPTION 1

Work with the state's Natural Heritage Program, a local fish or wildlife agency, or the state fish and wildlife agency to determine if significant habitat occurs on the site. If significant habitat is found, do not disturb that significant habitat or portions of the site within an appropriate buffer around the habitat. The geographic extent of the habitat and the appropriate buffer shall be identified by a qualified biologist, a non-governmental conservation organization or the appropriate state, regional or local agency. Protect significant habitat and its identified buffers from development in perpetuity by donating or selling the land or a conservation easement on the land to an accredited land trust or relevant public agency. Significant habitat for this credit includes:

- Habitat for species that are listed or are candidates for listing under state or federal endangered species acts, or for those classified as G1, G2, G3 and/or S1 and S2 species by NatureServe (see note below about G and S classification); and
- Locally or regionally significant habitat, or patches of natural vegetation at least 150 acres in size (irrespective of whether some of the 150 acres lies outside the **project boundary**); and
- Habitat flagged for conservation under a regional or state conservation or green infrastructure plan;

OR

OPTION 2

If the project is located on a **previously developed site**, use **native plants** for 90% of vegetation, and use no **invasive plants** on any part of the site;

OR

OPTION 3 – FOR SITES WITH WETLANDS AND/OR WATER BODIES

Design the project to conserve 100% of all **water bodies** and **wetlands** on the site; and conduct an assessment, or compile existing assessments, showing the extent to which water bodies and/or wetlands on the site perform the following functions: 1) water quality maintenance, 2) wildlife habitat protection, and 3) hydrologic function maintenance, including flood protection. Assign appropriate buffers (not less than 100 feet) around the development footprint throughout the site based upon the functions provided, contiguous soils and slopes, and contiguous land uses; and protect wetlands, water bodies, and their

buffers from development in perpetuity by donating or selling the land or a conservation easement on the land to an accredited land trust or relevant public agency.

Additional Notes

G1 species are critically imperiled; at very high risk of extinction globally due to extreme rarity (often five or fewer populations), very steep declines, or other factors.

G2 species are imperiled; at high risk of extinction globally due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.

G3 species are vulnerable; at moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.

S1 species are critically imperiled in the state because of extreme rarity (often five or fewer occurrences) or because of some factor such as very steep declines making it especially vulnerable to extirpation from the state

S2 species are imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state.

See notes under SLL Prerequisite 3: Imperiled Species and Ecological Communities” for more information about NatureServe and this classification system.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

Option 1

- ❑ A brief description of the efforts to determine if significant habitat occurs on the project site, including information about the site received from the relevant natural heritage program or agency.
- ❑ A brief narrative summarizing the results of the efforts to determine whether significant habitat occurs on the project site.
- ❑ If significant habitat is found, submit a) a site plan which delineates significant habitat and buffers in relation to the project; and b) a letter from the accredited land trust or

relevant public agency stating that a transfer of land rights for the habitat and buffer has taken place or will take place if the project is built, such that these areas will be protected in perpetuity.

Option 2

- ☐ A site plan indicating areas that were previously developed.
- ☐ A list of plants to be used.

Option 3

- ☐ A site plan which delineates any water bodies, wetlands, and/or buffers in relation to the development footprint.
- ☐ A summary of the assessment of water body and wetland functions.
- ☐ A letter from the accredited land trust or relevant public agency stating that a transfer of land rights for the habitat and buffer has taken place or will take place if the project is built, such that these areas will be protected in perpetuity.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2.

Smart Location & Linkage

SLL Credit 10: Restoration of Habitat or Wetlands

1 Point

Intent

Restore wildlife habitat and wetlands that have been harmed by previous human activities.

Requirements

Using only **native plants**, restore native habitat or **pre-development water bodies** or **wetlands** on the **project** site in an area equal to or greater than 10% of the **development footprint** and remove any invasive species on the site. Protect such areas from development in perpetuity by donating or selling the land or a conservation easement on the land to an accredited land trust or relevant public agency.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ☐ A site plan showing areas of restoration.
- ☐ A list of plants to be used.
- ☐ A calculation comparing the size of the restored areas to the size of the development footprint.
- ☐ A letter from the accredited land trust or relevant public agency stating that a transfer of land rights for the habitat or wetlands and water bodies has taken place or will take place if the project is built, such that these areas will be protected in perpetuity.
- ☐ Declaration that any invasive species on the project were removed.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ☐ Either a photograph, diagram, or a brief description of the restored areas.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Smart Location & Linkage

SLL Credit 11: Conservation Management of Habitat or Wetlands 1 Point

Intent

Conserve native wildlife habitat, wetlands and water bodies.

Requirements

OPTION 1 – FOR SITES WITH HABITAT

Create a long-term (at least 10-year) management plan for on-site native habitats and their buffers and create a guaranteed funding source for management. Involve at least one person from a natural resources agency, a natural resources consulting firm, or an academic ecologist in writing the management plan and conducting or evaluating the ongoing management. The plan should include biological objectives consistent with habitat conservation, and it should identify a) procedures, including personnel to carry them out, for maintaining the conservation areas; b) estimated implementation costs and funding sources; and c) threats that the **project** poses for habitat within conservation areas (e.g., introduction of exotic species, intrusion of residents in habitat areas) and measures to substantially reduce those threats;

OR

OPTION 2 – FOR SITES WITH WETLANDS AND WATER BODIES

Create a long-term (at least 10-year) management plan for any on-site **wetlands, water bodies** and their buffers and a guaranteed funding source for management. Involve at least one person from a natural resources agency, a natural resources consulting firm, or an academic ecologist in writing the management plan and conducting or evaluating the ongoing management. The plan should include biological objectives consistent with wetland and water body conservation, and it should identify a) procedures, including personnel to carry them out, for maintaining the conservation areas; and b) estimated implementation costs and funding sources.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A copy or summary of the management plan, including identification of preparers, or a written commitment to create a management plan if the project is built.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ❑ If a written commitment to create a management plan was submitted at previous stages, submit a copy or summary of the completed management plan.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Neighborhood Pattern & Design

NPD Prerequisite 1: Open Community Required

Intent

Promote communities that are physically connected to each other. Foster community and connectedness beyond the development.

Requirements

Designate all streets and sidewalks that are built as part of the **project** or serving the project directly as available for general public use and not gated. Gated areas and enclaves are NOT considered available for public use, with the exception of education and health care campuses where gates are used for security purposes.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ☐ A site and/or vicinity map indicating that all streets and sidewalks are available for general public use.
- OR
- ☐ Declaration that all streets and sidewalks are available for general public use.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to prerequisite requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to prerequisite requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to prerequisite requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2.

Neighborhood Pattern & Design

NPD Prerequisite 2: Compact Development Required

Intent

Conserve land. Promote livability, transportation efficiency, and walkability.

Requirements

Build any residential components of the **project** at an average **density** of seven or more dwelling units per acre of **buildable land** available for residential uses;

AND

Build any non-residential components of the project at an average density of 0.50 **FAR** or greater per acre of buildable land available for non-residential uses.

If the project location is serviced by a transit agency which has specified minimum service densities that are greater than the densities required by this prerequisite, then the project must meet the transit agency's minimum service densities instead.

The specified average density must be achieved by the point in the project's construction at which 50% of dwelling units are built, or within five years of the date that the first building is occupied, whichever is longer.

Additional Notes

The density of a mixed-use building is calculated by: 1) determining the total square footage of all residential and non-residential uses; 2) calculating the percentages of the total square footage that the residential and non-residential components each represent; 3) applying those percentages to the building parcel to determine the proportionate share of land area for each component; and 4) calculating residential density as the number of dwelling units per acre using the residential share of the building parcel, and calculating non-residential density as FAR using the non-residential share of the land area divided by total non-residential square footage. For example, a mixed-use building of ten dwellings at 1,500 sq.ft. each, and 25,000 sq.ft. of retail, on one acre of land would have a residential density of 26 DU/acre and a non-residential density of 0.92 FAR. Densities of individual mixed use buildings that are not being averaged with other single-use buildings must meet either the residential density minimum or the non-residential density minimum, but need not meet both.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The

certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A site plan indicating densities.
OR
- ❑ A table of calculations of the densities of any residential components, non-residential components, and mixed use buildings.
- ❑ A statement indicating whether any transit agency has specified minimum service densities higher than densities required by this prerequisite for the area where the project is located.
- ❑ A statement indicating the expected timeline for project construction and (for projects that have a residential component) which components of the project will be completed when 50% of the dwelling units are built.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to prerequisite requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

- ❑ If project conditions remain unchanged with respect to prerequisite requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2.

Neighborhood Pattern & Design

NPD Credit 1: Compact Development

1 to 7 Points

Intent

Conserve land. Promote community livability, transportation efficiency, and walkability.

Requirements

Design and build the **project** to achieve the densities shown in the table below.

Residential Density (DU/acre)	Non-residential Density (FAR)	Points Available
10 to 20	0.75 to 1.0	1
> 20 and ≤ 30	> 1.0 and ≤ 1.5	2
> 30 and ≤ 40	> 1.5 and ≤ 2.0	3
> 40 and ≤ 50	> 2.0 and ≤ 2.5	4
> 50 and ≤ 60	> 2.5 and ≤ 3.0	5
> 60 and ≤ 70	> 3.0 and ≤ 3.5	6
> 70	> 3.5	7

The specified density must be achieved by the point in the project's construction at which 50% of dwelling units are built, or within five years of the date that the first building is occupied, whichever is longer.

Additional Notes

The scoring of the density of a mixed-use project is calculated by a weighted average: 1) determining the total square footage of all residential and non-residential uses; 2) calculating the percentages of the total square footage that the residential and non-residential components each represent; 3) determining the density of each component as measured in dwelling units per acre and FAR respectively; 4) determining how many points the residential and non-residential component each earns separately according to the table above; 5) if the points are different, multiply the point value of the residential component by the percentage of the total square footage it represents (as determined in step 2) and multiply the point value of the non-residential component by the percentage of the total square footage it represents (as determined in step 2); 6) add the two scores together. For example; a project that is 75% residential at an average density of 65 DU/acre and 25% non-residential at an FAR of 0.8 would earn 4 points: $(.75 \times 6) + (.25 \times 1) = 4.25$, which is rounded to 4.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The

certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A site plan indicating densities.
OR
- ❑ A table of calculations of the densities of any residential components, non-residential components, and mixed use buildings.
- ❑ For mixed-use projects, submit a calculation showing the points earned by the weighted average of residential and non-residential.
- ❑ A statement indicating the expected timeline for project construction and (for projects which have a residential component) which components of the project will be completed when 50% of the dwelling units are built.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2.

Neighborhood Pattern & Design

NPD Credit 2: Diversity of Uses

1 to 4 Points

Intent

Promote community livability, transportation efficiency, and walkability.

Requirements

Include a residential component in the **project** that constitutes at least 25% of the project's total building square footage; and design or locate the project such that at least 50% of the dwelling units are within ½ mile **walk distance** of at least two (1 point), four (2 points), seven (3 points) or ten (4 points) of the **diverse uses** defined in Appendix A. Uses may either be in nearby areas or be built within the development.

Verify that a pedestrian can reach the uses via routes that do not necessitate crossing any streets that have speed limits of greater than 25 miles per hour, unless those crossings have vehicle traffic controls such as signals and stop signs with crosswalks.

The specified number of uses must be in place by the time certain percentages of occupancy are in place, as indicated in the following table:

Number of uses	Percentage of project occupancy at which uses need to be in place
Two uses (1 point)	20%
Four uses (2 points)	30%
Seven uses (3 points)	40%
Ten uses (4 points)	50%

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A calculation demonstrating that at least 25% of the project's built square footage is residential.
- ❑ A site and/or vicinity map of the vicinity showing the project's dwelling units and walking routes to any of the relevant uses defined in Appendix A.
- ❑ A table of walk distances between each dwelling unit and relevant uses defined in Appendix A, and calculation of the percentage of dwelling units that lie within the specified distance.
- ❑ For any streets with speed limits greater than 25 miles per hour that intersect with walking routes to the relevant uses defined in Appendix A, verify that vehicle traffic controls exist or will be installed at all walking route intersections.
- ❑ A statement indicating the expected timeline for project construction and which uses will be in place at the time the relevant percentages of occupancy are in place.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate "No change since Stage 1" on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate "No change since Stage 2" on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2.

Neighborhood Pattern & Design

NPD Credit 3: Diversity of Housing Types

1 to 3 Points

Intent

To enable citizens from a wide range of economic levels and age groups to live within a community.

Requirements

Include a sufficient variety of housing sizes and types in the **project** such that the total variety of housing within the project, or within a ¼ mile of the center of the project, achieves at least 0.5 according to the following calculation, which is based on the Simpson Diversity Index using the housing categories below.

The Simpson Diversity Index score is calculated with the following equation:

$$\text{Score} = 1 - \sum (n/N)^2,$$

where n = the total number of dwellings in a single category, and
 N = the total number of dwellings in all categories.

Score on the Simpson Diversity Index	Points Earned
≥ 0.5 and < 0.6	1
≥ 0.6 and < 0.7	2
≥ 0.7	3

Housing categories are defined for the purposes of this calculation in LEED for Neighborhood Development as:

- (1) Detached residential large - (greater than 1200 sq. ft.)
- (2) Detached residential small - (less than 1200 sq. ft.)
- (3) Duplex or townhouse - large (greater than 1200 sq. ft.)
- (4) Duplex or townhouse - small (less than 1200 sq. ft.)
- (5) Multifamily dwelling in a building with no elevator - large (greater than 750 sq. ft.)
- (6) Multifamily dwelling in a building with no elevator - small (less than 750 sq. ft.)
- (7) Multifamily dwelling in a building with elevator four stories or fewer - large (greater than 750 sq. ft.)
- (8) Multifamily dwelling in a building with elevator four stories or fewer - small (less than 750 sq. ft.)
- (9) Multifamily dwelling in a building with elevator more than four stories and fewer than nine stories - large (greater than 750 sq. ft.)
- (10) Multifamily dwelling in a building with more than four stories and fewer than nine stories - small (less than 750 sq. ft.)
- (11) Multifamily dwelling in a building with elevator nine stories or more - large (greater than 750 sq. ft.)
- (12) Multifamily dwelling in a building with nine stories or more - small (less than 750 sq. ft.)

- (13) Live/work large (greater than 1200 sq. ft.)
- (14) Live/work small (less than 1200 sq. ft.)
- (15) Accessory Unit – large (greater than 1200 sq. ft.)
- (16) Accessory Unit – small (less than 1200 sq. ft.)

Townhouse and live/work units may be ground related and/or within a multifamily or mixed-use building. Double counting is prohibited. Each dwelling may be classified in only one category.

Additional Notes

This credit was adapted from Laurance Aurbach's TND Design Rating Standards Version 2.1, June 2005.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A site and/or vicinity map showing the location of different types of housing, either 1) within the project; or 2) within ¼ mile of the center of the project.
- ❑ The number of dwelling units in each category, the total number of dwelling units, and the results of the Simpson Diversity Index calculation.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate "No change since Stage 1" on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2.

Neighborhood Pattern & Design

NPD Credit 4: Affordable Rental Housing

1 to 2 Points

Intent

To enable citizens from a wide range of economic levels and age groups to live within a community.

Requirements

Include a proportion of rental units priced for households earning below **area median income** such that:

OPTION 1

At least 15% of total rental units are priced for households up to 50% of area median income and units are maintained at affordable levels for a minimum of fifteen years (1 point);

OR

OPTION 2

At least 30% of total rental units are priced for households up to 80% of area median income and units are maintained at affordable levels for a minimum of fifteen years (1 point);

OR

OPTION 3

At least 15% of total rental units are priced for households up to 50% of area median income and an additional 15% of total rental units are priced for households at up to 80% of area median income and units are maintained at affordable levels for a minimum of fifteen years (2 points).

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ Confirmation of current HUD data regarding the area median income and the resulting maximum monthly rents.
- ❑ A table showing the number of affordable and market rate housing units, the rental prices of any affordable units, and a calculation of the percentage of rental units that are priced within the specified range.
- ❑ A copy of, or a written commitment to create a regulatory and operating agreement, deed restrictions, or other recorded document evidencing that the units will be maintained at the specified affordable levels for a minimum of fifteen years.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2.

Neighborhood Pattern & Design

NPD Credit 5: Affordable For-Sale Housing 1 to 2 Points

Intent

To enable citizens from a wide range of economic levels and age groups to live within a community.

Requirements

Include a proportion of for-sale housing affordable to households at or slightly above the **area median income** such that:

OPTION 1

At least 10% of for-sale housing is priced for households up to 80% of the area median income (1 point);

OR

OPTION 2

At least 20% of for-sale housing is priced for households up to 120% of the area median income (1 point);

OR

OPTION 3

At least 10% of for-sale housing is priced for households up to 80% of the area median income and an additional 10% of for-sale housing is priced for households at up to 120% of the area median income (2 points).

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ Confirmation of current HUD data regarding the area median income and the resulting maximum housing sale price(s).
- ❑ A table showing the number of affordable and market rate housing units, the sale prices of any affordable units, and a calculation of the percentage of for-sale units that are priced within the specified range.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2.

Neighborhood Pattern & Design

NPD Credit 6: Reduced Parking Footprint

2 Points

Intent

Design parking to increase the pedestrian orientation of projects and to minimize the adverse environmental effects of parking facilities.

Requirements

For any non-residential buildings and multifamily residential buildings that are part of the project, locate all off-street surface parking lots at the side or rear of buildings, leaving building frontages and streetscapes free of surface parking lots;

AND

Use no more than 20% of the total **development footprint** area for surface parking facilities, with no individual surface parking lot larger than 2 acres. For the purposes of this credit, surface parking facilities include ground-level garages unless they are under or over space intended for human occupancy. Underground or multi-story parking facilities can be used to provide additional capacity, and on-street parking spaces are exempt from this limitation;

AND

For any non-residential buildings and multifamily residential buildings that are part of the **project**, provide bicycle and/or carpool parking spaces equivalent to 10% of the total automobile parking for each non-residential and multifamily building on the site. Signage indicating carpool parking spots should be provided, and bicycle parking should be within 200 yards of the entrance to the building that it services. The 10% carpool/bicycle space requirement can be met with any combination of bicycle and carpool parking.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A site plan indicating the location of all surface, underground, or multi-story parking facilities, including relevant carpool and bicycle spaces and carpool signage. For bicycle spaces provided for non-residential buildings, indicate the distance between the spaces and the entrance of the building they serve.
- ❑ The percentage of total development footprint that is used for surface parking facilities.
- ❑ The size of each individual parking lot that is part of the project.
- ❑ For any non-residential or multifamily residential buildings, submit the number of conventional automobile parking spaces, carpool spaces, and bicycle parking spaces that will be provided.
- ❑ Confirm that signage will be provided for any carpool spaces.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2.

Neighborhood Pattern & Design

NPD Credit 7: Walkable Streets

4 to 8 Points

Intent

Provide appealing and comfortable pedestrian street environments in order to promote pedestrian activity. Promote public health through increased physical activity.

Requirements

Design and build the **project** such that all of the following are achieved (4 points):

- a. A principal **functional entry** of each building has a front façade that faces a public space such as a street, square, park, paseo, or plaza.
- b. A minimum of 30% of all street frontages located *within* the project, if any, are planned for development that complies with the minimum building-height-to-street-width proportions of 1:3; and where building sites are planned along streets *bordering* the project, a minimum of 15% of the total street frontage of such sites contains (or is dedicated to) development that will produce a building-height-to-street-width proportion of 1:3. Street frontages are to be measured in linear feet.
- c. Continuous sidewalks or equivalent provisions for walking are provided along both sides of all streets within the **project**. New sidewalks must be at least 4 feet wide. Equivalent provisions for walking include *woonerfs* and footpaths.
- d. All streets along exclusively residential blocks within the **project**, whether new or existing, are designed for a maximum speed of 20 mph.
- e. All streets along non-residential or mixed use blocks within the project, whether new or existing, are designed for a maximum speed of 25 mph.

If the above measures are achieved, the project may earn additional points as follows: 1 point for designing and building the project such that any three measures on the list below are accomplished (up to 4 additional points):

- f. The front façades of at least 80% of all buildings are no more than 25 feet from front property line.
- g. The front facades of at least 50% of all buildings are no more than 18 feet from the front property line.
- h. The front facades of at least 50% of mixed-use and non-residential buildings are contiguous to the sidewalk.
- i. Functional building entries occur every 75 feet, on average, along non-residential or mixed use blocks.
- j. All ground-level non-residential interior spaces that face a public space have transparent glass on at least 33% of the ground-level façade.
- k. No blank (without doors or windows) walls longer than 50 feet occur along sidewalks. Walls with public art installations such as murals may be exempted.
- l. Any ground-level storefront windows must be kept open and visible (unshuttered) at night, and this must be stipulated to future owners in **CC&Rs** or other binding documents.

- m. On-street parking is provided on 70% of both sides of all new streets. The percentage of on-street parking shall be measured by comparing the length of street designated for parking to the total length of the curb around the perimeter of each block, including curb cuts, driveways, and intersection radii.
- n. Street trees occur between the vehicle travel way and sidewalk at intervals of no greater than 40 feet;
- o. At least 50% of ground-floor dwelling units have an elevated finished floor no less than 24 inches above the sidewalk grade.
- p. In non-residential or mixed use projects, 50% or more of the total number of office buildings include ground floor retail; and all businesses and/or other community services on the ground floor are accessible directly from sidewalks along a public space such as a street, square, or plaza.
- q. Trees or other structures provide shade within five years of project occupancy over at least half the length of sidewalks included within or contiguous to the project. The estimated crown diameter (the width of the shade if the sun is directly above the tree) is used to calculate the shaded area.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ To achieve the base 4 points, submit a site plan or plans indicating the following:
 - (a) the principal functional entries of all buildings and any streets or other public spaces.
 - (b) any street frontages planned for development with a minimum building height- to-street-width proportion of 1:3.
 - (c) the location and width of sidewalks or equivalent provisions for walking.
 - (d/e) the location of residential and non-residential uses, and the speed for which each street within the project will be designed.
- ❑ To achieve the base 4 points, submit the following additional documentation:
 - (b) a calculation showing the percentage of street frontage within the project that will meet the minimum building height-to-street-width proportion of 1:3; and the same percentage for street frontage on the borders of the project.
- ❑ To achieve additional points, submit a site plan or plans indicating the following (as appropriate to the measures attempted):

- (f/g) the distance between the front façades of buildings and the front property lines.
 - (h) the location of any mixed-use or non-residential buildings and the distance between their front façades and the sidewalk.
 - (i) the location of functional entries along non-residential or mixed use blocks.
 - (j) the location of all ground-level non-residential uses along public spaces, the length of the use that will border the public space (in linear feet), and which of them will have transparent glass on the ground-level façade.
 - (k) the location and length of any blank walls along sidewalks.
 - (l) the location of any ground-level storefront windows that will be kept open and visible (unshuttered) at night.
 - (m) the location and length of any on-street parking.
 - (n) the location of any street trees and the distance between them.
 - (o) the location of any ground-floor dwelling units, and which of them will have an elevated finished floor.
 - (p) the location of any office buildings, which of them will have ground floor retail, and the location of entries to any ground-level business or community service from sidewalks or other public spaces.
 - (q) the location and length of sidewalks, and the location and length of shade that will be generated by trees or other structures.
- To achieve additional points, submit the following additional documentation (as appropriate to the measures attempted):
- (f) a calculation showing the percentage of building front façades that will be no more than 25 feet from the front property line.
 - (g) a calculation showing the percentage of building front façades that will be no more than 18 feet from the front property line.
 - (h) a calculation showing the percentage of mixed-use and non-residential building front façades that will be contiguous to the sidewalk.
 - (i) a calculation showing the average of the distances between functional building entries along non-residential or mixed-use blocks.
 - (j) a calculation showing the percentage of ground-level non-residential interior spaces that will face a public space that will have transparent glass on the ground-level façade.
 - (l) a copy of, or a written commitment to create, any necessary CC&Rs, development agreements, or other binding documents that will ensure that ground-level storefront windows are kept open and visible (unshuttered) at night.
 - (m) a calculation showing the percentage of street length that will have on-street parking.

- (o) a calculation showing the percentage of ground-floor dwelling units that will have an elevated finished floor.
- (p) a calculation showing the percentage of office buildings that will have ground floor retail.
- (q) a calculation showing the percentage of sidewalks that will be shaded.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ☐ For projects attempting the measure described in (l), if a written commitment to create the required agreements was submitted previously, submit a copy of the actual agreement(s).

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Neighborhood Pattern & Design

NPD Credit 8: Street Network

1 to 2 Points

Intent

Encourage the design of projects that incorporate high levels of internal connectivity and the location of projects in existing communities in order to conserve land, promote multimodal transportation and promote public health through increased physical activity.

Requirements

If new cul-de-sacs are created as part of the **project**, include a pedestrian or bicycle through-connection in at least 50% of any new cul-de-sacs. If topographical conditions prohibit such connections, these are not included in the calculation.

AND meet the requirements under one of the following Options:

OPTION 1 – FOR PROJECTS SMALLER THAN 7 ACRES

Locate the project such that the **street grid density** within a ¼ mile radius from the center of the project falls within one of the ranges listed in the table below, OR design the project such that the project's street grid density falls within one of the ranges listed in the table below.

OR

OPTION 2 – FOR PROJECTS 7 ACRES OR LARGER

Design the project such that the project's average street grid density falls within one of the ranges listed in the table below.

Street grid density (centerline miles/sq.mi.)	Points Earned
20 – 29	1
>30	2

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

All Options

- ❑ A site plan indicating the location of any cul-de-sacs and pedestrian or bicycle through-connections.

Option 1

- ❑ A site plan and map of the vicinity showing the street grid density of the area within a ¼ mile radius of the center of the project site.
- ❑ A calculation of the street grid density within a ¼ mile radius of the center of the project site.

Option 2

- ❑ A site plan showing the street grid density of the project site.
- ❑ A calculation of the street grid density of the project site.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2.

Neighborhood Pattern & Design

NPD Credit 9: Transit Facilities

1 Point

Intent

Encourage transit use and reduce driving by creating safe and comfortable transit facilities.

Requirements

Provide covered and at least partially enclosed shelters, adequate to buffer wind and rain, with at least one bench at each transit stop within the **project boundaries**. Shelters shall be illuminated to five average maintained footcandles (light levels may be reduced after hours). Existing external lighting can contribute to this level, but any new lighting shall meet light pollution requirements in GCT Credit 20, and designed to not directly illuminate any windows of residential properties.

AND

Provide kiosks, bulletin boards, and/or signs devoted to providing local transit information as part of the project, including basic schedule and route information at each transit stop that borders or falls within the **project**.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A site plan showing the location of any transit stops within the project boundaries and any kiosks, bulletin boards, or signs with local transit information that will be provided as part of the project.
- ❑ A brief narrative listing the facilities for each transit stop that will be provided, including shelters, benches, and the mechanism for achieving the minimum light levels.
- ❑ A brief narrative describing the transit information that will be posted at kiosks, bulletin boards, or signs.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2.

Neighborhood Pattern & Design

NPD Credit 10: Transportation Demand Management

2 Points

Intent

Reduce energy consumption and pollution from motor vehicles by encouraging use of public transit.

Requirements

OPTION 1

Create and implement a comprehensive transportation demand management (TDM) program for the **project** aimed at reducing **weekday peak period** trips by at least 20% compared to the forecasted trip generation for the project without the TDM strategies; and fund for a minimum of two years following **buildout** of the project (1 point);

OR

OPTION 2

Provide transit passes valid for at least one year, subsidized to be half of regular price or cheaper, to each resident and employee locating within the project during the first three years of project occupancy (or longer). Publicize the fact that subsidized transit passes are available to the eligible residents and employees (1 point);

OR

OPTION 3

Provide transit service (with vans, shuttles, buses) to rail, ferry, or other major transit facilities and/or another major destination such as a retail or employment center, with service no less frequent than five rides per weekday peak period. The service must begin when the project is 20% occupied or sooner, and must be guaranteed for at least two years beyond project buildout (1 point).

No more than 2 points can be earned under this credit.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

Option 1

- ❑ A narrative describing the TDM program, including the strategies used, the estimated resulting trip reduction percentage, and the estimated cost of the program for two years following buildout of the project.
- ❑ A written commitment to fund the TDM program for two years following buildout of the project if the project is built.

Option 2

- ❑ A narrative describing the type of transit available, the mechanism for publicizing and distributing subsidized transit passes, the regular and subsidized prices of passes, and the estimated number of new residents and employees that will receive subsidized transit passes.
- ❑ A written commitment to provide a legally binding guarantee that passes will be provided to meet the requirements, if the project is built.

Option 3

- ❑ A map of the vicinity indicating the routes of new transit service that will be provided as part of the project.
- ❑ A description of the type of transit, and a schedule of service to be provided by as part of the project.
- ❑ A timeline of estimated project occupancy as compared with the estimated start date of transit service provided as part of the project.
- ❑ A written commitment to provide a legally binding guarantee that such service will be provided for at least two years beyond project buildout, if the project is built.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ☐ For Options 2 or 3, if a copy of the legally binding guarantee has not yet been submitted, submit a copy of this guarantee.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Neighborhood Pattern & Design

NPD Credit 11: Access to Surrounding Vicinity

1 Point

Intent

Provide direct and safe connections, for pedestrians and bicyclists as well as drivers, to local destinations and neighborhood centers. Promote public health by facilitating walking and bicycling.

Requirements

Design and build **projects** such that there is at least one through-street at the **project boundary** every 800 feet, or at existing abutting street intervals, whichever distance is smaller. This does not apply to connections that cannot physically be made; e.g. **wetlands**, rivers, railroads, extreme topography, natural gas lines, pipeline easements, highways, expressways and other limited-access roads.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A site and/or vicinity map showing the project boundary, existing abutting street intervals, the through-streets at the project boundary, and the distances between through-streets.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2.

Neighborhood Pattern & Design

NPD Credit 12: Access to Public Spaces

1 Point

Intent

To provide a variety of open spaces close to work and home to encourage walking, physical activity and time spent outdoors.

Requirements

Locate and/or design **project** so that a park, green plaza or square at least 1/6 acre in area, and at least 150' in width, lies within 1/6 mile **walk distance** of the 90% of the dwelling units and business entrances in the project. Parks less than 1 acre must also have a proportion no narrower than 1 unit of width to 4 units of length;

AND

For projects larger than 7 acres only, locate and/or design the project so that taken together all of the parks in the project shall average at least 1/2 acre in size.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A site and/or vicinity map showing 1) the location of all residential units and non-residential building entrances; 2) the location, size, and proportions of all relevant parks; and 3) the walking routes between the project's buildings and relevant parks.
- ❑ A table of walk distances between each dwelling unit or non-residential building entrance and the closest relevant public space, and a calculation of the percentage of dwelling units and non-residential building entrances that lie within the specified distance.
- ❑ For projects larger than 7 acres, submit a calculation of the average size of parks (in acres) in the project.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2.

Neighborhood Pattern & Design

NPD Credit 13: Access to Active Spaces

1 Point

Intent

To provide a variety of open spaces close to work and home to encourage walking, physical activity and time spent outdoors.

Requirements

OPTION 1

Locate and/or design the **project** so that an active open space facility (e.g., general playfields, soccer, baseball, basketball and other sports fields) of at least 1 acre lies within ½ mile **walk distance** of 90% of the dwelling units and business entrances in the project;

OR

OPTION 2

Locate and/or design the project so that at least 50% of dwelling units and business entrances are located within ¼ mile walk distance of a multi-use trail or Class I bikeway of at least 3 miles in length;

OR

OPTION 3

Locate and/or design the project so that at least 90% of all dwelling units and business entrances in the project are located within ¼ mile walk distance of a public recreation center or gym with outdoor facilities or a park with active recreational facilities.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

Option 1

- ❑ A site and/or vicinity map showing 1) the location of all residential units and non-residential building entrances; 2) the location and size of all relevant active open space facilities; and 3) the walking routes between the project's buildings and relevant facilities.
- ❑ A table of walk distances between each dwelling unit or non-residential building entrance and the closest relevant active open space facility, and a calculation of the percentage of dwelling units and non-residential building entrances that lie within the specified distance.

Option 2

- ❑ A site and/or vicinity map showing 1) the location of all buildings; 2) the location and length of the relevant trail; and 3) the walking routes between the project's buildings and relevant trail.
- ❑ A table of walk distances between each building and the closest relevant trail, and a calculation of the percentage of building that lie within the specified distance.

Option 3

- ❑ A site and/or vicinity map showing 1) the location of all residential units and non-residential building entrances; 2) the location of all relevant recreation centers and gyms with outdoor facilities, and parks with active recreational facilities; and 3) the walking routes between the project's buildings and relevant recreation centers, gyms, and parks.
- ❑ A table of walk distances between each dwelling unit or non-residential building entrance and the closest relevant recreation center, gym, or park, and a calculation of the percentage of dwelling units and non-residential building entrances that lie within the specified distance.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate "No change since Stage 1" on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2.

Neighborhood Pattern & Design

NPD Credit 14: Universal Accessibility

1 Point

Intent

Enable the widest spectrum of people, regardless of age or ability, to more easily participate in their community life by increasing the proportion of areas that are usable by people of diverse abilities.

Requirements

For **projects** with residential components:

For each residential unit type developed, design 20% (and not less than one) of each type to comply with the accessible design provisions of the Fair Housing Amendments Act (FHAA) and Section 504 of the Rehabilitation Act (Rehabilitation Act), as applicable. Separate residential unit types include: single-family, duplex, triplex, multi-unit row or townhouses, and mixed-use buildings that include residential units. (Compliance for multi-family buildings of four or more units is already a regulatory requirement.). All paths of travel between residential units and other buildings within the project shall comply with the accessible design provisions of the FHAA and Rehabilitation Act, as applicable;

AND

For projects with common-use or recreational facilities constructed as part of the project:

- For any residential areas, apply the accessible design provisions of the FHAA and the Rehabilitation Act to facilities and rights-of-way; and
- For any non-residential areas, apply the accessible design provisions of the American Disabilities Act (ADA) to facilities and rights-of-way.

Projects that include only non-residential components and public right-of-ways will not be able to achieve this credit, since they are already required by law to comply with applicable accessibility regulations. However, if non-residential projects include any common-use or recreational facilities not covered by accessibility regulations, they will be able to achieve the credit.

Regarding residential accessibility design provisions, an accessible entrance can be located at the front, side or back of the residential unit, which may sometimes be determined by the topography of the site.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A brief narrative identifying the universal design or universal accessibility features of the project, and identifying any applicable provisions of the FHAA, Rehabilitation Act, and the ADA.
- ❑ For projects with residential components, submit a site plan indicating the location of any units and paths of travel that comply with the applicable provisions of the FHAA and the Rehabilitation Act, and a calculation showing the percentage of each type of residential unit that complies with the applicable provisions.
- ❑ For projects with common-use or recreational facilities constructed as part of the project, submit a site plan indicating the location of these facilities, including rights-of-way in residential areas.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ❑ For projects with residential components, submit a list of street addresses for any residential units that comply with the applicable provisions of the FHAA and the Rehabilitation Act

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Neighborhood Pattern & Design

NPD Credit 15: Community Outreach and Involvement

1 Point

Intent

To encourage community participation in the project design and planning and involve the people who live in a community in deciding how it should be improved or how it should change over time.

Requirements

Meet with immediate neighbors and local public officials to solicit input on the proposed **project** during the pre-conceptual design phase,

AND

Host an open community meeting during conceptual design phase to solicit input on the proposed project,

AND

Modify the project design as a direct result of community input, or if modifications are not made, explain why community input did not generate design improvements,

AND

Work directly with community associations and/or other social networks of the community to advertise public meetings and generate comments on project design,

AND

Establish ongoing means for communication between the developer and the community throughout the design, construction, and in cases where the developer maintains control of part or the entire project, post-construction.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ For projects that have not yet undertaken community outreach and involvement but intend to, submit a written commitment to meet the requirements of the credit and a brief description as to how and when the activities are expected to take place.
- ❑ For projects that have already undertaken community outreach and involvement, submit the following:
 - 1) some documentation that at least one public meeting was held (examples could include meeting fliers, agenda, minutes, invitation letters, photographs of the meeting, copies of meeting sign-in sheets);
 - 2) a brief narrative and/or illustration demonstrating how community input influenced changes to the design or an explanation of why changes were not made;
 - 3) at least one letter of support from a community association and/or social network stating that the project team worked directly to engage with the association or network to advertise and generate comments on the project;
 - 4) a brief narrative describing the ongoing means of communication between developers and community during design, construction, and in cases where the developer maintains control of part or the entire project, after construction.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ❑ If community outreach and involvement efforts had not taken place at the time of previous stages of certification, submit documentation of these efforts.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Neighborhood Pattern & Design

NPD Credit 16: Local Food Production

1 Point

Intent

Promote community-based and local food production to minimize the environmental impacts from transporting food long distances and increase direct access to fresh foods.

Requirements

Establish **CC&Rs** or other forms of deed restrictions that do not prohibit areas for growing produce, including greenhouses, on any portion or area of residential front yards, rear yards, side yards, balconies, patios or rooftops. Greenhouses, but not gardens, may be prohibited in front yard areas that face the street.

AND

Meet the requirements under one of the following Options:

OPTION 1 – NEIGHBORHOOD FARMS AND GARDENS

Dedicate permanent and viable growing space and/or related facilities (such as greenhouses) within the **project** at the square footage areas specified below. Provide fencing, watering systems, soil and/or garden bed enhancements (such as raised beds), secure storage space for garden tools, solar access, and pedestrian access for these spaces. Ensure that the spaces are owned and managed by an entity that can include occupants of the project in its decision-making, such as a community group, a homeowners association, or a public body.

Project density (dwelling unit/acre)	Required growing space (sq ft per dwelling unit)
7 to 14	200
> 14 and ≤ 22	100
> 22 and ≤ 28	80
> 28 and ≤ 35	70
> 35	60

OR

OPTION 2 – COMMUNITY SUPPORTED AGRICULTURE

Purchase shares in a **Community Supported Agriculture (CSA)** program located within 150 miles of the project site for at least 80% of the households within the project for two years. Shares must be delivered to within ¼ mile of the project on a regular schedule, which shall not be less than twice per month at least four months of the year.

OR

OPTION 3 – PROXIMITY TO FARMERS' MARKET

Locate and/or design project such that the center is within ¼ mile of an established farmer's market (that has been operating for at least two years), with at least three producer vendors, and that operates at least once a week for at least 5 months of the year.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

All Options

- ❑ A copy of, or a written commitment to create, any necessary CC&Rs, development agreements, deed restrictions, or other binding documents that will establish that areas for growing produce are not prohibited as specified.

Option 1

- ❑ A site plan showing the location and size of dedicated space for growing and/or related facilities.
- ❑ A calculation showing the required growing space based on density.
- ❑ A written commitment to provide the items specified if the project is built.
- ❑ A brief narrative explaining what entity will serve to own and manage the growing spaces and facilities.

Option 2

- ❑ Identification of available CSA programs that can deliver to within ¼ mile of the project site according to the specified schedule, and an estimated cost for purchasing shares for 80% of the project's households for two years.
- ❑ A written commitment to purchase shares for 80% of the project's households for two years, if the project is built.

Option 3

- ❑ A map showing the location of the relevant farmers' market in relation to the project.

- ❑ A brief narrative describing the number of producer vendors and the market's schedule of operation.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate "No change since Stage 1" on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate "No change since Stage 2" on project checklist, and submit the following additional post-construction documentation:

- ❑ If a written commitment to create the required agreements regarding the allowance of growing spaces and facilities was submitted previously, submit a copy of the actual agreement(s).
- ❑ For Option 1, if a written commitment to provide the items specified was submitted previously, submit confirmation that the items were provided.
- ❑ For Option 2, if a written commitment to purchase shares for 80% of the project's households for two years, submit confirmation that the shares were purchased.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Green Construction & Technology

GCT Prerequisite 1: Construction Activity Pollution Prevention Required

Intent

Reduce pollution from construction activities by controlling soil erosion, waterway sedimentation and airborne dust generation.

Requirements

Create and implement an Erosion and Sedimentation Control (ESC) Plan for all construction activities associated with the **project**. The ESC Plan shall list the Best Management Practices (BMPs) employed and describe how the BMPs accomplish the following objectives:

- Prevent loss of soil during construction by stormwater runoff and/or wind erosion, including protecting topsoil by stockpiling for reuse.
- Prevent sedimentation of any impacted stormwater conveyance systems or receiving streams.
- Prevent polluting the air with dust and particulate matter.

The BMPs shall be selected from the 2003 EPA Construction General Permit (CGP) OR local erosion and sedimentation control standards and codes, whichever is more stringent.

Note: Many projects are already mandated to comply with the CGP. These requirements are intended to integrate consideration of these measures into site planning and to ensure that all projects seeking LEED certification implement these measures, regardless of size.

Additional Notes

Information on the CGP is available at: <http://cfpub.epa.gov/npdes/stormwater/cgp.cfm>.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A site plan indicating where erosion and sedimentation control will be necessary during construction.
- ❑ A written commitment that an ESC plan will be created and implemented if the project is built, or confirmation that local code requires the same provisions.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to prerequisite requirements, indicate “No change since Stage 1” on project checklist, and submit the following additional documentation:

- ❑ A summary of the ESC Plan, including a list of BMPs that will be used and confirmation of whether they were selected from the EPA CGP or local standards and codes.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to prerequisite requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ❑ Copies of photographs or drawings to document the erosion and sedimentation control measures implemented on the site, or a representative sample thereof.
- ❑ A brief narrative describing the erosion and sedimentation control measures implemented on the project.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Green Construction & Technology

GCT Credit 1: LEED Certified Green Buildings

1 to 3 Points

Intent

Encourage the design and construction of buildings to utilize green building practices.

Requirements

OPTION 1 – FOR **PROJECTS WITH 5 OR FEWER HABITABLE BUILDINGS**

Design, construct, or retrofit one building as part of the project to be certified under one of the following LEED building rating systems: LEED for New Construction, LEED for Existing Buildings, LEED for Homes, LEED for Core & Shell, LEED for Schools, or any Application Guides of these rating systems (1 point). Additional points (no more than 3 total) may be earned for each additional certified building that is part of the project;

OR

OPTION 2 – FOR **PROJECTS WITH 6 OR MORE HABITABLE BUILDINGS**

Design, construct, or retrofit a percentage of the square footage of buildings that are part of the project to be certified under one of the LEED building rating programs listed above. Points are available as follows:

Percent of square footage of project's buildings LEED certified	Points
20% to 30%	1
> 30% to 40%	2
> 40%	3

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A written commitment to certify the relevant buildings under a LEED building rating system if the project is built.

Option 2

- ❑ A calculation showing the percentage of square footage that will be LEED certified.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 1” on project checklist, and submit the following additional documentation:

- ❑ Confirmation that the relevant buildings have been registered under a LEED building rating system. (If buildings are submitting for Design Review, the results of this review may be submitted, but are not required.)

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ❑ Confirmation that the relevant buildings have been certified under a LEED building rating system.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Green Construction & Technology

GCT Credit 2: Energy Efficiency in Buildings

1 to 3 Points

Intent

Encourage the design and construction of energy efficient buildings to reduce air, water, and land pollution and environmental impacts from energy production and consumption.

Requirements

1 POINT CAN BE EARNED AS FOLLOWS:

Design and construct at least 90% of all buildings in the **project** such that they meet one of the following requirements according to the appropriate category:

Category 1: For non-residential buildings and residential buildings over 3 stories:

WHOLE BUILDING ENERGY SIMULATION

Demonstrate a minimum 10% improvement in the proposed building performance rating compared to the baseline building performance rating per ASHRAE/ IESNA Standard 90.1-2004 (without addenda) by a whole building project simulation using the Building performance Rating Method in Appendix G of the Standard. Appendix G requires that this energy analysis include ALL of the energy costs within and associated with the building project. To achieve this point, the proposed design:

- must comply with the mandatory provisions (Sections 5.4, 6.4, 7.4, 8.4, 9.4 and 10.4) in Standard 90.1-2004 (without addenda);
- must include all the energy costs within and associated with the building project; and
- must be compared against a baseline building that complies with Appendix G to Standard 90.1-2004 (without addenda). The default process energy cost is 25% of the total energy cost for the baseline building. For buildings where the process energy cost is less than 25% of the baseline building energy cost, the LEED submittal must include supporting documentation substantiating that process energy inputs are appropriate.

For the purposes of this analysis, process energy is considered to include, but is not limited to, office and general miscellaneous equipment, computers, elevators and escalators, kitchen cooking and refrigeration, laundry washing and drying, lighting exempt from the lighting power allowance (e.g. lighting integral to medical equipment) and other (e.g. waterfall pumps). Regulated (non-process) energy includes lighting (such as for the interior, parking garage, surface parking, façade, or building grounds, except as noted above), HVAC (such as for space heating, space cooling, fans, pumps, toilet exhaust, parking garage ventilation, kitchen hood exhaust, etc.), and service water heating for domestic or space heating purposes.

For this credit, process loads shall be identical for both the baseline building performance rating and for the proposed building performance rating. However, project teams may follow the Exceptional Calculation Method (ASHRAE 90.1-2004 G2.5) to document measures that reduce process loads. Documentation of process load energy savings shall include a list of the assumptions made for both the base and proposed design, and theoretical or empirical information supporting these assumptions.

OR

PRESCRIPTIVE COMPLIANCE PATH A

Comply with the prescriptive measures of the ASHRAE Advanced Energy Design Guide for Small Office Buildings or the ASHRAE Advanced Energy Design Guide for Small Retail Buildings, as appropriate to building type. The following restrictions apply:

- Buildings must be under 20,000 square feet.
- Buildings must be office or retail occupancy.
- Project teams must fully comply with all applicable criteria as established in the Advanced Energy Design Guide for the climate zone in which the building is located.

OR

PRESCRIPTIVE COMPLIANCE PATH B

Comply with the Basic Criteria and Prescriptive Measures of the Advanced Buildings Benchmark™ Version 1.1 with the exception of the following sections: 1.7 Monitoring and Trend-logging, 1.11 Indoor Air Quality, and 1.14 networked Computer Monitor Control. The following restrictions apply:

- Project teams must fully comply with all applicable criteria as established in Advanced Buildings Benchmark for the climate zone in which the building is located.

Category 2: For residential buildings 3 stories or fewer:

Qualify as an ENERGY STAR Home by either a performance path (through a **HERS Index** rating) or a prescriptive path (Builder Option Package or BOP).

2 POINTS CAN BE EARNED AS FOLLOWS:

Design and construct at least 90% of all buildings in the project such that they meet one of the following requirements according to the appropriate category:

Category 1: For non-residential buildings and residential buildings over 3 stories:

WHOLE BUILDING ENERGY SIMULATION

Demonstrate a minimum 15% improvement in the proposed building performance rating compared to the baseline described above in WHOLE BUILDING ENERGY SIMULATION of Category 1.

OR

PRESCRIPTIVE COMPLIANCE PATH A

Comply with the prescriptive measures of the ASHRAE Advanced Energy Design Guide for Small Office Buildings or the ASHRAE Advanced Energy Design Guide for Small Retail Buildings, as described above in PRESCRIPTIVE COMPLIANCE PATH A of Category 1.

Category 2: For residential buildings 3 stories or fewer:

Qualify as an ENERGY STAR Home by either a performance path (through a HERS Index rating) or a prescriptive path (Builder Option Package or BOP).

3 POINTS CAN BE EARNED AS FOLLOWS:

Design and construct at least 90% of all buildings in the project such that they meet one of the following requirements according to the appropriate category:

Category 1: For non-residential buildings and residential buildings over 3 stories:

WHOLE BUILDING ENERGY SIMULATION

Demonstrate a minimum 20% improvement in the proposed building performance rating compared to the baseline described above in WHOLE BUILDING ENERGY SIMULATION of Category 1.

OR

PRESCRIPTIVE COMPLIANCE PATH A

Comply with the prescriptive measures of the ASHRAE Advanced Energy Design Guide for Small Office Buildings or the ASHRAE Advanced Energy Design Guide for Small Retail Buildings, as described above in PRESCRIPTIVE COMPLIANCE PATH A of Category 1.

Category 2: For residential buildings 3 stories or fewer:

Exceed the ENERGY STAR for Homes requirements by achieving a minimum **HERS Index** of at least 80 for **IECC** Climate Zones 1-5 (generally the southern United States), or at least 75 for IECC Climate Zones 6-8 (generally the northern United States).

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A written commitment to meet the requirements of the credit as appropriate to the number of points attempted if the project is built, including a table listing each building and what compliance path is planned for the building, and a calculation showing the percentage of buildings that will be meeting the relevant requirements.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 1” on project checklist, and submit the following additional documentation:

- ❑ For Category 1 buildings, submit a statement of the project team’s capacity and/or qualifications to design and construct the relevant buildings according to the compliance path chosen, and/or a description of the services that will be contracted to do so.
- ❑ For Category 2 buildings, submit the name of the HERS provider to be used or a brief narrative explaining how the project team will ensure that homebuilders will have the necessary capacity and/or qualifications to meet the requirements.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ❑ For Category 1 buildings using WHOLE BUILDING ENERGY SIMULATION, submit confirmation that, for a representative sample of buildings, whole building energy simulation was completed and the specified percentage of improvement in

energy performance was achieved. (The LEED submittal template may provide additional calculations that are too lengthy to repeat here.)

- ❑ For Category 1 buildings using PRESCRIPTIVE COMPLIANCE PATH A, submit confirmation that, for a representative sample of buildings, the prescriptive measures of the appropriate ASHRAE Advanced Energy Design Guide were met. (The LEED submittal template may provide additional calculations that are too lengthy to repeat here.)
- ❑ For Category 1 buildings using PRESCRIPTIVE COMPLIANCE PATH B, submit confirmation that, for a representative sample of buildings, the prescriptive measures of the Advanced Buildings Benchmark™ were met. (The LEED submittal template may provide additional calculations that are too lengthy to repeat here.)
- ❑ For Category 2 buildings attempting 1 or 2 points, submit the ENERGY STAR for Homes certificate.
- ❑ For Category 2 buildings attempting 3 points, submit the HERS performance test results.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Green Construction & Technology

GCT Credit 3: Reduced Water Use

1 to 3 Points

Intent

Minimize water use in buildings and for landscape irrigation to reduce the impact to natural water resources and reduce the burden on municipal water supply and wastewater systems.

Requirements

OPTION 1 – INDOOR (1 to 2 points)

Design and construct at least 90% of all buildings in the **project** such that they meet one of the following requirements according to the appropriate category (1 point):

Category 1: For non-residential buildings and residential buildings over 3 stories:

Employ strategies that in aggregate use 20% less water than the water use baseline calculated for the building (not including irrigation) after meeting the Energy Policy Act of 1992 fixture performance requirements. Calculations are based on estimated occupant usage and shall include only the following fixtures (as applicable to the building): water closets, urinals, lavatory faucets, showers, and kitchen faucets.

Category 2: For residential buildings 3 stories or fewer:

Comply with 2 out of 3 of the following requirements:

- The average flow rate for all lavatory faucets must be ≤ 2.0 GPM.
- The average flow rate for all shower heads must be ≤ 2.0 GPM.
- The average flow rate for all toilets, including dual-flush toilets, must be ≤ 1.3 GPF.

2 POINTS CAN BE EARNED AS FOLLOWS:

Design and construct at least 90% of all buildings in the project such that they meet one of the following requirements according to the appropriate category:

Category 1: For non-residential buildings and residential buildings over 3 stories:

Employ strategies that in aggregate use 30% less water than the water use baseline calculated for the building (not including irrigation) after meeting the Energy Policy Act of 1992 fixture performance requirements. Calculations are based on estimated occupant usage and shall include only the following fixtures (as applicable to the building): water closets, urinals, lavatory faucets, showers, and kitchen faucets.

Category 2: For residential buildings 3 stories or fewer:

Comply with all of the following requirements:

- The average flow rate for all lavatory faucets must be ≤ 2.0 GPM.
- The average flow rate for all shower heads must be ≤ 2.0 GPM.
- The average flow rate for all toilets, including dual-flush toilets, must be ≤ 1.3 GPF.

OR

OPTION 2 – OUTDOOR (1 point)

For irrigation, use only captured rainwater, recycled wastewater, recycled **graywater**, or water treated and conveyed by a public agency specifically for non-potable uses.

OR

Install landscaping that does not require permanent irrigation systems. Temporary irrigation systems used for plant establishment are allowed only if removed within one year of installation.

A point from Option 2 may be earned independently, or be added to those earned under Options 1, for a maximum of 3 points.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

Option 1

- ☐ An estimate of baseline indoor water use based on the type and number of buildings in the project.
- ☐ A written commitment to employ indoor water use reduction strategies to meet the requirements of the credit as appropriate to the number of points attempted if the project is built.

Option 2

- ☐ A site plan indicating areas of outdoor water use.
- ☐ A written commitment to employ outdoor water use reduction strategies to meet the requirements of the credit, including a list of strategies planned.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

Option 1

- ☐ For Category 1 buildings, submit: 1) a narrative describing the strategies that were used in the buildings to reduce water use; 2) a table showing each building’s water use compared to the baseline fixture performance requirements of the Energy Policy Act of 1992; and 3) a calculation of the aggregate percentage of reduced water use for each building.
- ☐ For Category 2 buildings, submit a table showing the fixtures that were incorporated into each building that meet the flow rate specifications.

Option 2

- ☐ The total non-potable water supply in gallons available for irrigation purposes.
- ☐ A brief narrative describing the landscaping and irrigation design strategies employed by the project.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Green Construction & Technology

GCT Credit 4: Building Reuse and Adaptive Reuse

1 to 2 Points

Intent

Extend the life cycle of existing building stock, conserve resources, reduce waste, and reduce environmental impacts of new buildings as they relate to materials manufacturing and transport.

Requirements

Incorporate into the **project** the reuse of one building that maintains at least 50% (based on surface area) of the existing building structure (including structural floor and roof decking) and envelope (including exterior skin and framing, and excluding window assemblies and non-structural roofing material). Hazardous materials that are remediated as a part of the project scope shall be excluded from the calculation of the percentage maintained (1 point).

For projects reusing portions of two or more existing buildings, 1 additional point can be earned by incorporating into the project the reuse that achieves the greater of the following:

- 50% of 1 existing building plus an equivalent amount reused among one or more buildings (based on surface area, as defined above); or
- 20% of the existing building stock (based on surface area, as defined above)

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A written commitment to maintain the percentage of building structure(s) to meet the requirements of the credit as appropriate to the number of points attempted if the project is built.
- ❑ For projects attempting to earn 2 points, confirmation of which compliance path the project will use and calculations demonstrating that it is the greater of the two.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ☐ A table of the existing and reused areas in square feet of each structural/envelope element, and a calculation of the percentage of existing buildings reused.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Green Construction & Technology

GCT Credit 5: Reuse of Historic Buildings

1 Point

Intent

Encourage use of historic buildings in a manner that preserves their historic materials and character.

Requirements

Incorporate into the **project** one or more buildings that have been:

- designated, listed, or identified by a local government as a historic or contributing structure in a locally designated historic district pursuant to a local preservation ordinance;
- OR
- designated, listed, or identified as a historic or contributing structure in a historic district under a state historic register or on the National Register of Historic Places;

AND

Rehabilitate the building(s) in accordance with local or federal standards for rehabilitation, and:

- obtain confirmation from the municipality, and/or the local historic preservation commission that the plan(s) for rehabilitation meet the local standards for an historic rehabilitation,
- OR
- obtain confirmation from a State Historic Preservation Office or the National Park Service that the rehabilitation satisfies the Secretary of the Interior's "Standards for Rehabilitation."

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A document from the local government, the State Historic Preservation Officer, or the National Park Service stating the name and address of the property, its historic designation or status, and the date of designation. Other acceptable documents include a

copy of the notice in the *Federal Register* or a verifiable copy of the web page of a state or national register that demonstrates the designation.

- ❑ A written commitment to incorporate and rehabilitate at least one historic building to meet the requirements of the credit if the project is built.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ❑ A document from the municipality, and/or the local historic preservation commission stating that the building(s) has complied with local requirements for a historic rehabilitation, including the name and address of the property or properties, and the date compliance was determined, or a document from the State Historic Preservation officer or the National Park Service, stating that the building(s) has complied with the Secretary of the Interior’s “Standards for Rehabilitation,” including the name and address of the certified property or properties and the date compliance was determined.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Green Construction & Technology

GCT Credit 6: Minimize Site Disturbance Through Site Design

1 Point

Intent

Preserve existing tree canopy, native vegetation and pervious surfaces while encouraging high **density**, smart growth communities.

Requirements

OPTION 1

Locate the **development footprint** on areas that are 100% **previously developed** and for which the zone of construction impact is 100% previously developed;

OR

OPTION 2

Depending on the density of the **project**, do not develop or disturb a proportion of the land that has not been previously developed on the site, exclusive of any land excluded from development by law or required to be preserved as a prerequisite of LEED for Neighborhood Development, and stipulate in **CC&Rs** or other binding development documents that the undisturbed area will be protected from development in perpetuity. Densities and minimum percentages are as follows (mixed use projects should use the lowest applicable density or calculate a weighted average per the methodology in NPD Credit 1: Compact Development):

Residential Density (DU/acre)	Non-Residential Density (FAR)	Minimum percentage of previously undeveloped site area to leave undisturbed
< 15	< .50	20%
15-21	.50 – 1.00	15%
> 21	> 1.0	10%

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

All Options

- ☐ A site plan indicating the location of any areas that are previously developed, the development footprint of the project, and the zone of construction impact.

Option 2

- ☐ A calculation showing the residential and/or non-residential density of the project.
- ☐ A calculation of the percentage of the previously undeveloped areas that will be left undisturbed.
- ☐ A copy of, or a written commitment to create, any necessary CC&Rs, development agreements, or other binding documents that will protect the undisturbed area according to the relevant credit requirements if the project is built.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ☐ For Option 2, if a written commitment to create the required agreements was submitted previously, submit a copy of the actual agreement(s).

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Green Construction & Technology

GCT Credit 7: Minimize Site Disturbance During Construction

1 Point

Intent

Conserve existing natural areas and protect trees to provide habitat and promote biodiversity.

Requirements

OPTION 1

Locate the **development footprint** on areas that are 100% **previously developed** and for which the zone of construction impact is 100% previously developed;

OR

OPTION 2

For portions of the site that are not previously developed: identify limits of disturbance through the creation of construction impact zones; and limit all site disturbance to 40 feet beyond the building perimeter; 10 feet beyond surface walkways, patios, surface parking and utilities less than 12 inches in diameter; 15 feet beyond primary roadway curbs and main utility branch trenches; and 25 feet beyond constructed areas with permeable surfaces (such as pervious paving areas, stormwater detention facilities and playing fields) that require additional staging areas in order to limit compaction in the constructed area.

OR

OPTION 3 – AVAILABLE FOR SITES WITH TREES ONLY

Survey the site to identify:

- trees in good or excellent condition as determined by a certified arborist,
- any Heritage or Champion trees of special importance to the community as defined by a jurisdictional City, County or State Forester because of their age, size, type, historical association or horticultural value,
- the caliper of all trees at 4'6" above ground (diameter at breast height or D.B.H.), and
- any invasive species of tree present on the site, and whether those species threaten the health of other trees to be preserved on the site, as determined by a certified arborist.

Preserve the following on the site that are also identified as in good or excellent condition:

- all Heritage or Champion Trees identified,
- a minimum of 75% of all non-invasive trees (including the above) over 18" in caliper (D.B.H.), and
- a minimum of 25% of all non-invasive trees (including the above) that are over 12" in caliper (D.B.H.) if deciduous, and 6" in caliper (D.B.H.) if conifer.

Develop a plan, in consultation with and approved by a certified arborist, for the health of the trees, including fertilization and pruning, and construction tree protection plans and specifications which are to include protection fencing located at the drip line of each tree, and specifying that if trenching or other disturbance is necessary within the drip line, this work must be done by hand. If a certified arborist has determined that the health of the trees to be preserved is threatened by invasive vegetation, develop a plan for invasive vegetation removal and restoration.

Stipulate in **CC&Rs** or other binding development documents that the preserved trees will be protected from development in perpetuity.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

Options 1 and 2

- ☐ A site plan indicating the location of any areas that are previously developed, the development footprint of the project, and the zone of construction impact.

Option 3

- ☐ A site plan showing the locations of existing trees, and indicating which will be preserved.
- ☐ A summary of the survey conducted, highlighting the type and quantity of trees found, any Heritage or Champion trees, any trees with a caliper greater than 18", and any invasive tree species present on the site.
- ☐ A list or summary of the trees to be preserved.
- ☐ A calculation of the percentage of non-invasive trees with a caliper greater than 12" or 6" (as appropriate to type) that will be preserved.
- ☐ A copy or summary of the maintenance plan developed in consultation with a certified arborist.
- ☐ A copy of, or a written commitment to create, any necessary CC&Rs, development agreements, or other binding documents that will protect the preserved trees according to the relevant credit requirements if the project is built.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ☐ For Option 3, if a written commitment to create the required agreements was submitted previously, submit a copy of the actual agreement(s).

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Green Construction & Technology

GCT Credit 8: Contaminant Reduction in Brownfields Remediation 1 Point

Intent

Encourage **brownfields** cleanup methods that reduce contaminant volume or toxicity and thereby minimize long-term remediation or monitoring burdens.

Requirements

Earn SLL Credit 1: Contaminated Brownfields Redevelopment;

AND

Use cleanup method(s) for 100% of the remediation that treat, reduce or eliminate the volume or toxicity of contaminated material found on the site.

Cleanup methods which include only capping or translocation of contaminated material to an off-site location will not achieve this credit.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A site plan indicating the areas of contamination.
- ❑ A written commitment to meet the requirements of the credit if the project is built, and a brief narrative describing the types of contamination and the cleanup methods to be used.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 1” on project checklist, and submit the following additional documentation:

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ☐ A brief narrative and/or technical drawings demonstrating the cleanup methods used.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Green Construction & Technology

GCT Credit 9: Stormwater Management

1 to 5 Points

JUNE 2007 VERSION

Note: Projects can use this version or the February 2007 version found in Appendix B.

Intent

Reduce adverse impacts on water resources by mimicking the natural hydrology of the region on the project site, including groundwater recharge. Reduce pollutant loadings from stormwater discharges, reduce peak flow rates to minimize stream channel erosion, and maintain or restore chemical, physical, and biological integrity of downstream waterways.

Requirements

OPTION 1 – FOR PREVIOUSLY DEVELOPED SITES

Implement a comprehensive stormwater management plan for the **project** that infiltrates, re-uses, or evapotranspires the below-specified amount of rainfall from the project's **development footprint** and other areas that have been graded so as to be effectively impervious.

Points achievable	Arid Watersheds (less than 20" of rain/year)	Semi-arid Watersheds (between 20"-40" rain/year)	Humid Watersheds (at least 40" rain/year)
1 point	0.15"	0.225"	0.3"
2 points	0.3"	0.45"	0.6"
3 points	0.45"	0.675"	0.9"
4 points	0.6"	0.9"	1.2"
5 points	0.75"	1.125"	1.5"

OPTION 2 – FOR ALL OTHER SITES

Implement a comprehensive stormwater management plan for the project that infiltrates, re-uses, or evapotranspires the below-specified amount of rainfall from the project's **development footprint** and other areas that have been graded so as to be effectively impervious.

Points achievable	Arid Watersheds (less than 20" of rain/year)	Semi-arid Watersheds (between 20"-40" rain/year)	Humid Watersheds (at least 40" rain/year)
1 point	0.3"	0.45"	0.6"
2 points	0.6"	0.9"	1.2"
3 points	0.9"	1.35"	1.8"

4 points	1.2"	1.8"	2.4"
5 points	1.5"	2.25"	3.0"

- Notes: a) The stormwater management plan should identify practices to be employed, such as permeable pavements, rainwater harvesting systems or green roofs.
b) For the purposes of the calculations in this credit, the development footprint will include typically impervious surfaces included in the definition of “development footprint,” such as roofs and pavements, even though the surfaces may be made pervious as part of the stormwater management plan.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

All Options

- ☐ A site plan indicating the project’s development footprint, and the location of any planned stormwater management technologies or BMPs.
- ☐ A written commitment to develop and implement a comprehensive stormwater management plan to meet the requirements if the project is built.
- ☐ Confirmation of type of watershed.

Option 1

- ☐ A site plan indicating previously developed areas (this can be done as part of the site plan listed above).

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 1” on project checklist, and submit the following additional documentation:

All Options

- ☐ A summary of the stormwater management plan, highlighting the technologies or BMPs used on the site.

- ❑ A statement of the project team's capacity and/or qualifications to implement the plan, and/or a description of the services that will be contracted to do so.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate "No change since Stage 2" on project checklist, and submit the following additional post-construction documentation:

- ❑ A calculation of either 90% of the average annual rainfall or 1" of rainfall that occurs on the project's development footprint and other effectively impervious areas.
- ❑ A calculation of the percentage of the development footprint for which runoff will be infiltrated, re-used, or evapotranspired.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Green Construction & Technology

GCT Credit 10: Heat Island Reduction

1 Point

Intent

Reduce heat islands to minimize impact on microclimate and human and wildlife habitat.

Requirements

OPTION 1 – NON-ROOF

Provide any combination of the following strategies for 50% of the non-roof impervious site landscape (including roads, sidewalks, courtyards, parking lots, and driveways):

- Shade (within five years of occupancy)
- Paving materials with a Solar Reflectance Index (SRI) of at least 29
- Open grid pavement system

OR

Place a minimum of 50% of off-street parking spaces under cover (defined as underground, under deck, under roof, or under a building). Any roof used to shade or cover parking must have an SRI of at least 29;

OR

OPTION 2 – ROOF

Use roofing materials that have a Solar Reflectance Index (SRI) equal to or greater than the values in the table below for a minimum of 75% of the roof surface of all buildings within the **project**; or install a “green” (vegetated) roof for at least 50% of the roof area of all buildings within the project.

Combinations of SRI compliant and vegetated roof can be used provided that they collectively cover 75% of the roof area of all buildings.

Roof Type	Slope	SRI
Low-Sloped Roof	$\leq 2:12$	78
Steep-Sloped Roof	$\geq 2:12$	29

Additional Notes

Shaded areas for the purposes of this credit will include areas shaded by trees, other landscape features, but not awnings, buildings, or other structural features.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

Option 1

- ❑ A site plan indicating the location of any non-roof areas that will be employing the heat island reduction technologies or strategies listed in the requirements.
- ❑ A written commitment to employ sufficient non-roof heat island reduction strategies to meet the requirements, if the project is built.

Option 2

- ❑ A site plan indicating the location of any green roofs or roof areas that will have an SRI greater than or equal to those specified in the requirements.
- ❑ A written commitment to include a sufficient percentage of green roofs, or roofs with the specified SRI value to meet the requirements, if the project is built.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 1” on project checklist, and submit the following additional documentation:

Option 1

- ❑ A table of strategies to be used and area covered by each, and a calculation of the percentage of non-roof impervious site landscape that will employ heat island reduction strategies.

Option 2

- ❑ A table of roof types to be used and roof area covered for each, and a calculation of the percentage of roof area that will be green roofs or roofs with the specified SRI value.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2.

Green Construction & Technology

GCT Credit 11: Solar Orientation

1 Point

Intent

Achieve enhanced energy efficiency by creating the optimum conditions for the use of passive and active solar strategies.

Requirements

OPTION 1 – BLOCK DESIGN (AVAILABLE FOR **PROJECTS** EARNING AT LEAST 2 POINTS UNDER NPD CREDIT 1: COMPACT DEVELOPMENT)

Locate project on existing blocks, or design and orient project, such that for 75% or more of the project's blocks, one axis of each block is within 15 degrees of geographical east/west, and the east/west length of each block is at least as long, or longer, as the north/south length of the block.

OR

OPTION 2 – BUILDING DESIGN (AVAILABLE FOR ALL PROJECTS)

Design and orient 75% or more of the **project's** buildings such that one axis of each building is at least 1.5 times longer than the other, and such that the longer axis is within 15 degrees of the geographical east/west axis. The length to width ratio shall be applied only to the length of walls enclosing conditioned spaces; walls enclosing unconditioned spaces such as garages, arcades, or porches cannot contribute to credit achievement. South-facing vertical surfaces of buildings counting towards credit achievement must not be more than 25% shaded at time of initial occupancy (measured at noon on December 21st).

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

Option 1

- ❑ A site plan indicating the axis of all relevant blocks, and their degree relation to the geographical east/west axis.
- ❑ A calculation of the percentage of blocks that have a long (or equal-length) axis within 15 degrees of geographical east/west axis.

Option 2

- ❑ A site plan indicating: 1) the axis of all relevant buildings and their degree relation to the geographical east/west axis; and 2) the length to width proportion of each relevant building.
- ❑ A cross section drawing showing any shading that would impact solar access for relevant buildings.
- ❑ A calculation of the percentage of buildings that the required proportions and their long axis within 15 degrees of geographical east/west axis.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

Option 2

- ❑ Drawings, diagrams, or photographs demonstrating the solar access for each relevant building, or a representative sample thereof.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Green Construction & Technology

GCT Credit 12: On-Site Energy Generation

1 Point

Intent

Reduce air, water, and land pollution from energy consumption and production by increasing the efficiency of the power delivery system. Increase the reliability of power.

Requirements

OPTION 1 – (PRESCRIPTIVE) ELECTRICAL BASELINE

Develop on-site energy generation system(s) with peak electrical generating capacity of at least 5% of the **project's** specified electrical service load.

OPTION 2 – (PERFORMANCE) TOTAL ENERGY BASELINE

Develop on-site energy generation system(s) with capacity of at least 5% of the project's annual electrical and thermal energy consumption, as established through an accepted building energy performance simulation tool.

For both options, total CO₂ emissions shall be less than or equal to national average of CO₂ emissions for grid supplied electricity, which shall be calculated as the sum of 1545 lb per MWh produced by the on-site power generation system and 145 lb per MMBtu of thermal energy produced by the on-site power generation system.

For both options, calculations for total on-site energy can include future site or building-integrated systems stipulated through **CC&Rs** or other binding documents.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A written commitment to develop on-site energy generation system(s) to meet the requirements if the project is built.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 1” on project checklist, and submit the following additional documentation:

- ❑ A brief narrative describing the planned on-site energy generation system(s), including an estimate of the total project specified electrical service load or energy use, confirmation of which compliance path will be used, the type(s) of on-site energy system(s) to be used, and estimates of CO₂ emissions compared to the national average of grid supplied electricity.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

All Options

- ❑ A list of on-site energy generating system(s) used and the generation capacity of each.
- ❑ A calculation of total CO₂ emissions of the system compared to the national average for grid supplied electricity, as described in the requirements.

Option 1

- ❑ The total electrical service load of the project and a calculation showing the percentage that is generated by on-site system(s).

Option 2

- ❑ The total annual electrical and thermal energy consumption of the project, a calculation showing the percentage that is generated by on-site system(s), and confirmation of the building energy performance simulation tool used.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Green Construction & Technology

GCT Credit 13: On-Site Renewable Energy Sources

1 Point

Intent

Encourage on-site renewable energy self-supply in order to reduce environmental and economic impacts associated with fossil fuel energy use.

Requirements

OPTION 1 – (PRESCRIPTIVE) ELECTRICAL BASELINE

Design and incorporate the use of shared on-site nonpolluting renewable energy generation technologies such as solar, wind, geothermal, small scale/micro hydroelectric, and biomass with peak electrical generating capacity of at least 5% of the **project's** specified electrical service load.

OPTION 2 – (PERFORMANCE) TOTAL ENERGY BASELINE

Design and incorporate the use of shared on-site nonpolluting renewable energy generation technologies such as solar, wind, geothermal, small scale/micro hydroelectric, and biomass with peak electrical generating capacity of at least 5% of the project's annual electrical and thermal energy consumption, as established through an accepted building energy performance simulation tool.

For both options, calculations for total on-site energy can include future site or building-integrated systems stipulated through **CC&Rs** or other binding documents.

Additional Notes

Eligible Renewable Energy Systems

- **Electrical Systems:** Photovoltaic (PV), wind, hydro, wave, tidal, and bio-fuel based electrical production systems deployed at the project site.
- **Geothermal Energy Systems:** Geothermal energy systems using deep-earth water or steam sources (and not using vapor compression systems for heat transfer) deployed at the project site. These systems may either produce electric power or provide thermal energy for primary use at the building.
- **Solar Thermal Systems:** Active solar thermal energy systems that employ collection panels; heat transfer mechanical components, such as pumps or fans, and a defined heat storage system, such as a hot water tank or thermo-siphon solar and storage tank "batch heaters" deployed at the site.

Ineligible on-site renewable energy systems include geo-exchange systems (ground source heat pumps) and renewable or green-power from off-site sources. Eligible bio-fuels include untreated wood waste including mill residues, agricultural crops or waste, animal waste and other organic waste and landfill gas. Electrical production based on the following bio-fuels are excluded from eligibility for this credit:

combustion of municipal solid waste, forestry biomass waste, other than mill residue, wood that has been coated with paints, plastics, or formica and wood that has been treated for preservation with materials containing halogens, chlorine compounds, halide compounds, chromated copper arsenate (CCA), or arsenic. If more than 1% of the wood fuel has been treated with these compounds, the energy system shall be considered ineligible for this credit.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A written commitment to develop on-site renewable energy generation system(s) to meet the requirements if the project is built.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 1” on project checklist, and submit the following additional documentation:

- ❑ A brief narrative describing the planned on-site renewable energy generation system(s), including an estimate of the specified electrical service load or total project energy use, confirmation of which compliance path will be used, and the type(s) of on-site energy system(s) to be used.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

All Options

- ☐ A list of on-site renewable energy generating system(s) used and the generation capacity of each.

Option 1

- ☐ The total electrical service load of the project and a calculation showing the percentage that is generated by on-site renewable energy system(s).

Option 2

- ☐ The total annual electrical and thermal energy consumption of the project, a calculation showing the percentage that is generated by on-site renewable energy system(s), and confirmation of the building energy performance simulation tool used.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Green Construction & Technology

GCT Credit 14: District Heating & Cooling

1 Point

Intent

Reduce air, water, and land pollution resulting from energy consumption in buildings by employing energy efficient district technologies.

Requirements

Design and incorporate into the **project** a district heating and/or cooling system for space conditioning of all buildings in the project (at least 2 buildings total) such that at least 80% of the project total square footage is connected, and at least 80% of the project total peak heating or cooling load is connected.

The efficiency of each component of the system which is regulated by ASHRAE / IESNA 90.1-2004 must have an overall efficiency performance at least 10% better than specified by the ASHRAE 90.1 - 2004 Prescriptive Requirements. Additionally, pumping power must not exceed 2.5% of the thermal energy output (with one kWh of electricity equal to 3,413 Btu). Combined Heat and Power (CHP) district systems can achieve this credit by demonstrating equivalency relative to the above criteria.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A written commitment to develop a district heating and/or cooling system to meet the requirements if the project is built.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 1” on project checklist, and submit the following additional documentation:

- ☐ A brief narrative describing the planned district heating or cooling system, including an estimate of the total project heating or cooling load, and which buildings will be connected.
- ☐ A list of components of the system that are regulated by ASHRAE / IESNA 90.1-2004, and the estimated efficiency of each compared to the relevant standard.
- ☐ Submit an estimate of pumping power as a percentage of thermal energy output.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ☐ The heating or cooling generation capacity of the system.
- ☐ The total heating or cooling load of the project, and a calculation showing the percentage that is generated by the district heating or cooling system.
- ☐ A calculation showing the percentage of the project total square footage that is connected.
- ☐ The efficiency of each component which is regulated by ASHRAE / IESNA 90.1-2004 compared to the relative standard.
- ☐ Submit the calculation of pumping power as a percentage of thermal energy output.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Green Construction & Technology

GCT Credit 15: Infrastructure Energy Efficiency

1 Point

Intent

Reduce air, water, and land pollution from energy consumption.

Requirements

Design or purchase any traffic lights, street lights, water and wastewater pumps and treatment systems that are included as part of the **project** to achieve a 15% annual energy reduction beyond an estimated baseline energy use for this infrastructure. If any traffic lights are installed as part of the project, use light emitting diode (LED) technology.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A written commitment to meet the requirements for any of the specified infrastructure items used in the project if the project is built.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 1” on project checklist, and submit the following additional documentation:

- ❑ A list of the relevant infrastructure items to be used in the project.
- ❑ An estimate of the baseline energy use for these items.
- ❑ A brief narrative explaining how the 15% reduction in annual energy use will be achieved and demonstrated.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ☐ A brief narrative and/or other documentation specified by the project beforehand (see Case 2A) demonstrating that the 15% reduction in energy use was achieved.
- ☐ Confirmation that LED technology was used for any traffic lights.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Green Construction & Technology

GCT Credit 16: Wastewater Management

1 Point

Intent

Reduce pollution from wastewater and encourage water reuse.

Requirements

Design and construct the **project** to divert at least 50% of the wastewater generated by the project, and reuse wastewater to replace the use of potable water. Provide for on-site wastewater treatment to a quality defined by state and local regulations for the proposed reuse.

50% of the wastewater is calculated by determining the total wastewater flow using conventional design practices in gallons per day and demonstrating that 50% of that volume enters an alternative, on-site process.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A written commitment to divert, treat as necessary, and reuse wastewater on site to meet the requirements if the project is built.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 1” on project checklist, and submit the following additional documentation:

- ❑ An estimate of the amount of wastewater to be generated by the project.

- ❑ A brief narrative describing the technologies to be used for diversion and treatment, the estimated percentage of wastewater to be diverted, and the on-site reuses for the diverted wastewater.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ❑ Applicable drawings from the construction documents that show the technologies used to divert, treat, and reuse wastewater.
- ❑ A calculation of the amount of wastewater generated by the project.
- ❑ A calculation of the amount of wastewater diverted, treated, and reused on site.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Green Construction & Technology

GCT Credit 17: Recycled Content in Infrastructure

1 Point

Intent

Use recycled materials to reduce the environmental impact of extraction and processing of virgin materials.

Requirements

Use the indicated recycled materials in all the following applications, if present in the **project**.

For roadways, parking lots, sidewalks, and curbs (above-ground structured parking and underground parking are exempt from this requirement):

- Any aggregate base and aggregate subbase shall be at least 90% by volume recycled aggregate materials such as crushed Portland cement concrete and asphalt concrete.
- Any asphalt base shall be a minimum 15% by volume recycled asphalt pavement.
- Any asphalt concrete pavement shall:
 - be a minimum 15% by volume recycled asphalt pavement, OR
 - be a minimum 75% by volume rubberized asphalt concrete from crumb rubber from scrap tires (crumb rubber modifier), OR
 - include a minimum of 5% (of total weight) of **pre-consumer** or **post-consumer** asphalt roofing shingles.
- Any Portland cement concrete pavement shall contain:
 - recycled mineral admixtures (such as coal fly ash, ground granulated blast furnace slag, rice hull ash, silica fume, or other pozzolanic industrial byproduct) to reduce by at least 25% the concrete mix's typical Portland cement content, AND
 - a minimum of 10% by volume reclaimed concrete material aggregate.

Piping made of Portland cement concrete shall contain recycled mineral admixtures (such as coal fly ash, ground granulated blast furnace slag, rice hull ash, silica fume, or other pozzolanic industrial byproduct) to reduce by at least 25% the concrete mix's typical Portland cement content.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ☐ A written commitment to meet the requirements for recycled content in the specified applications, if the project is built.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 1” on project checklist, and submit the following additional documentation:

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ☐ A table of each material used on the project that is being tracked for recycled content, including the type of material and recycled content.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Green Construction & Technology

GCT Credit 18: Construction Waste Management

1 Point

Intent

Divert construction and demolition debris from disposal in landfills and incinerators. Redirect recyclable recovered resources back to the manufacturing process. Redirect reusable materials to appropriate sites.

Requirements

Recycle and/or salvage at least 50% of non-hazardous construction and demolition debris. Develop and implement a construction waste management plan that, at a minimum, identifies the materials to be diverted from disposal and whether the materials will be stored on-site or commingled. Excavated soil and land-clearing debris do not contribute to this credit. Calculations can be done by weight or volume, but must be consistent throughout.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ☐ A written commitment to recycle and/or salvage demolition debris to meet the requirements if the project is built.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 1” on project checklist, and submit the following additional documentation:

- ☐ A summary of the construction waste management plan.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ☐ A table of the demolition debris, including a general description of each category of waste generated, the quantity in tons or cubic yards, and the location of receiving agent (recycler/landfill) for waste.
- ☐ A calculation showing the total percentage of material diverted from landfill disposal.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Green Construction & Technology

GCT Credit 19: Comprehensive Waste Management

1 Point

Intent

Reduce the waste hauled to and disposed of in landfills. Promote proper disposal of office and household hazardous waste streams.

Requirements

Meet at least two of the following three requirements and publicize the availability and benefits of the drop-off point(s), station(s), or services:

- 1) Include at least one drop-off point as part of the **project** available to all project occupants for office or household potentially hazardous wastes such as paints, solvents, oil, batteries; OR locate project in a local government jurisdiction that provides services for collecting these materials. If a plan for post-collection disposal or use does not exist, establish one.
- 2) Include at least one recycling or reuse station as part of the project available to all project occupants dedicated to the separation, collection, and storage of materials for recycling including, at a minimum, paper, corrugated cardboard, glass, plastics and metals; OR locate project in a local government jurisdiction that provides recycling services for these materials. If a plan for post-collection use does not exist, establish one.
- 3) Include at least one compost station as part of the project available to all project occupants dedicated to the collection and composting of food wastes; OR locate project in a local government jurisdiction that provides services for composting materials. If a plan for post-collection use does not exist, establish one.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A site plan indicating the location of the drop-off points or stations and a written commitment to provide them if the project is built, or confirmation that the project site is located in a jurisdiction that provides services for collecting these materials, and a schedule or summary of those services.
- ❑ A written commitment to publicize the availability and benefits of the drop-off points or stations to project occupants if the project is built.
- ❑ Confirmation that a plan for post-collection disposal or reuse of materials exists, or a written commitment to create one if the project is built.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 1” on project checklist, and submit the following additional documentation:

- ❑ If the collection services will be provided as part of the project (rather than by the local jurisdiction), submit a brief narrative describing how the stations will be operated and any necessary plans for post-collection disposal or reuse of materials.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ❑ Confirmation that the collection services are available to project occupants, and that any necessary plan for post-collection disposal or reuse of materials have been implemented.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Green Construction & Technology

GCT Credit 20: Light Pollution Reduction

1 Point

Intent

Minimize light trespass from site, reduce sky-glow to increase night sky access, improve nighttime visibility through glare reduction, and reduce development impact on nocturnal environments.

Requirements

For exterior lighting in **shared portions of the project**, only light areas as required for safety and comfort. Do not exceed 80% of the lighting power densities for exterior areas and 50% for building facades and landscape features as defined in ASHRAE/IESNA Standard 90.1-2004, Exterior Lighting Section, without addenda;

AND

Stipulate **CC&Rs** or other binding documents that require continued adherence to these standards.

All **projects** shall be classified under the following zones, as defined in IESNA RP-33, and shall follow all of the requirements for that specific zone:

LZ1 — Dark (Park and Rural Settings)

Design exterior lighting so that all site and building mounted luminaires produce a maximum initial illuminance value no greater than 0.01 horizontal and vertical footcandles at the site boundary and beyond. Document that 0% of the total initial designed fixture lumens are emitted at an angle of 90 degrees or higher from nadir (straight down).

LZ2 — Low (Residential areas)

Design exterior lighting so that all site and building mounted luminaires produce a maximum initial illuminance value no greater than 0.10 horizontal and vertical footcandles at the site boundary and no greater than 0.01 horizontal footcandles 10 feet beyond the site boundary. Document that no more than 2% of the total initial designed fixture lumens are emitted at an angle of 90 degrees or higher from nadir (straight down). For site boundaries that abut public rights-of-way, light trespass requirements may be met relative to the curb line instead of the site boundary.

LZ3 — Medium (Commercial/Industrial, High-Density Residential)

Design exterior lighting so that all site and building mounted luminaires produce a maximum initial illuminance value no greater than 0.20 horizontal and vertical footcandles at the site boundary and no greater than 0.01 horizontal footcandles 15 feet beyond the site. Document that no more than 5% of the total initial designed fixture lumens are emitted at an angle of 90 degrees or higher from nadir (straight down). For site boundaries that abut public rights-of-way, light trespass requirements may be met relative to the curb line instead of the site boundary.

LZ4 — High (Major City Centers, Entertainment Districts)

Design exterior lighting so that all site and building mounted luminaires produce a maximum initial illuminance value no greater than 0.60 horizontal and vertical footcandles at the site boundary and no greater than 0.01 horizontal footcandles 15 feet beyond the site. Document that no more than 10% of the total initial designed site lumens are emitted at an angle of 90 degrees or higher from nadir (straight down). For site boundaries that abut public rights-of-way, light trespass requirements may be met relative to the curb line instead of the site boundary.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ A site plan indicating shared portions of the project, and relevant sources of lighting.
- ❑ Confirmation of which LZ (lighting zone) the project is located in.
- ❑ A written commitment to reduce light pollution from shared portions of the project to meet the requirements if the project is built.
- ❑ A copy of, or a written commitment to create, any necessary CC&Rs, development agreements, or other binding documents that will require continued adherence to these standards.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 1” on project checklist, and submit the following additional documentation:

- ❑ A brief summary of the lighting design strategies that will be used to reduce light pollution from shared portions of the project.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ☐ Applicable lighting drawings from the construction documents that show the design strategies and/or technologies used to reduce light pollution from shared portions of the project.
- ☐ If a written commitment to create copies of the required agreements was submitted previously, submit a copy of the actual agreement(s).

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Innovation & Design Process

ID Credit 1: Innovation and Exemplary Performance 1 to 5 Points

Intent

To provide projects the opportunity to be awarded points for exceptional performance above the requirements set by the LEED for Neighborhood Development Rating System and/or innovative performance in green building, smart growth, or new urbanist categories not specifically addressed by the LEED for Neighborhood Development Rating System.

Requirements

In writing, identify the intent of the proposed innovation credit, the proposed requirement for compliance, the proposed submittals to demonstrate compliance, and the design approach and strategies that might be used to meet the requirements. (1 point each, up to 5 possible)

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ❑ The specific title for the ID credit, a statement of the credit intent, and a statement of credit requirements.
- ❑ A narrative (and site plan if necessary) describing the project's approach to achievement of the credit, including a description of the quantifiable benefits of the credit proposal.
- ❑ A written commitment to meet the requirements (stated by the project team as part of the submission requirement above) if the project is built.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ☐ Copies of any specific construction drawings or exhibits that will serve to illustrate the project’s approach to this credit. (Note: this may not be applicable to all ID credit proposals.)

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

Innovation & Design Process

ID Credit 2: LEED Accredited Professional 1 Point

Intent

To support and encourage the planning and design integration required by a LEED for Neighborhood Development green neighborhood project and to streamline the application and certification process.

Requirements

At least one principal member of the **project** design team shall be a LEED Accredited Professional.

OR

At least one principal member of the project design team shall be a professional who is credentialed with regard to smart growth as determined by the Natural Resources Defense Council in consultation with Smart Growth America.

OR

At least one principal member of the project design team shall be a professional who is credentialed with regard to new urbanism as determined by the Congress for the New Urbanism.

OR

This point may be used instead as an additional point available under ID Credit 1: Innovation and Exemplary Performance, for performance not related to professional team member experience.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ☐ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

- ☐ The name, place of employment, and a brief description of the project role for the individual.

- ❑ Confirmation of whether the individual is a LEED Accredited Professional, credentialed with regard to smart growth, or credentialed with regard to new urbanism.

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, no additional documentation is required. Indicate “No change since Stage 1” on project checklist.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1.

Case 2C: Did not submit at Stage 1

- ❑ Submit the documentation required at Stage 1.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ❑ Submit updated versions of the relevant documentation submitted at Stage 2.

Definitions

Adapted (or introduced) Plants – Plants that reliably grow well in a given habitat with minimal attention from humans in the form of winter protection, pest protection, water irrigation, or fertilization once root systems are established in the soil. Adapted plants are low maintenance but not invasive.

Adaptive reuse – Conversion of an existing building that is functionally obsolete for its designed purpose to an updated purpose.

Adequate transit service – During **weekday peak periods**, at least four buses (including bus rapid transit), streetcars or light rail trains per hour OR at least 5 heavy passenger rail or ferries per weekday peak period.

Adjacent site – A site having at least 25% of its perimeter bordering land that has been **previously developed**. For the purposes of this definition, a street or roadway does not constitute previously developed land. Any fraction of the perimeter that borders waterfront will be excluded from the calculation.

Area median income – The median, or middle, income of a county as defined and available from the U.S. Department of Housing and Urban Development.

Biking network – A continuous network consisting of one or more of the following: bicycle lanes or trails at least 5 feet wide or roads designed for a speed of 10 miles per hour or slower.

Block – Land bounded by the project boundary, dedicated transportation or utility rights-of-way, waterfront, and/or comparable land division features.

Brownfield – Real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminate. (U.S. EPA)

Buildable land – The portion of the site where construction can occur. When used in **density** calculations, the calculation for buildable land excludes: public streets and other public rights of way, and land excluded from development by law or other prerequisites of LEED for Neighborhood Development.

Buildout – The time at which all **habitable buildings** on the project are complete and ready for occupancy.

Class I Bikeway - Class I bikeways are defined as bicycle or multi-use facilities that are completely separate from the vehicular right-of-way. The standard Class I bikeway has pavement that is 8 feet wide however the exact design requirements for Class I bikeways differ from jurisdiction to jurisdiction.

Community Supported Agriculture (CSA) – A farm operation for which a community of individuals who pledge support so that the farmland becomes, either legally or informally, the community's farm. The growers and consumers provide mutual support, sharing the risks and benefits of food production. Consumers receive portions of the farm's harvest throughout the growing season.

Covenants, Conditions and Restrictions (CC&Rs) – Limitations that may be placed on a property and its use, and which are made a condition of holding title or lease.

Density – Density is the amount of building structures constructed on the project site, measured for residential buildings as dwelling units per acre of **buildable land** available for residential uses, and for non-residential buildings as the floor area ratio per acre of buildable land area available for non-residential uses.

Development footprint – The total land area of a **project** site covered by buildings, streets, parking areas, and other typically impermeable surfaces constructed as part of the project.

Floor Area Ratio (FAR) – The measure of the **density** of non-residential land use. It is the total non-residential building **floor area** divided by the total **buildable land area available for non-residential uses**. For example, on a site with 10,000 square feet of buildable land area, an FAR of 1.0 would be 10,000 square feet of built building floor area. On the same site, an FAR of 1.5 would be 15,000 square feet of built floor area; an FAR of 2.0 would be 20,000 built square feet and an FAR of 0.5 would be 5,000 built square feet.

Functional entry – An entryway that is designed to be used by pedestrians and is open during regular business hours. This does not include any door that is exclusively designated as an emergency exit, or a garage door that is not designed as an entrance for pedestrians.

Graywater – Untreated household waste water which has not come into contact with toilet waste. Gray water includes used water from bathtubs, showers, bathroom wash basins, and water from clothes-washer and laundry tubs. It shall not include waste water from kitchen sinks or dishwashers. Some states and local authorities allow kitchen sink wastewater to be included in graywater. Project teams should comply with graywater definitions as established by the authority having jurisdiction in their areas. (Uniform Plumbing Code)

Habitable building – A structure that is intended for living, working, or other types of occupancy. Habitable structures do not include buildings such as garages and pump stations.

HERS Index – A scoring system established by the Residential Energy Services Network (RESNET) in which a home built to the specifications of the HERS Reference Home (based on the 2006 International Energy Conservation Code) scores a HERS Index of 100, while a net zero energy home scores a HERS Index of 0. The lower a home's HERS Index, the more energy efficient it is in comparison to the HERS Reference Home.

Infill site – A site having at least 75% of its perimeter bordering sites that have been **previously developed**. For the purposes of this definition, a street or roadway does not constitute previously developed land. Any fraction of the perimeter that borders waterfront will be excluded from the calculation.

IECC – International Energy Conservation Code

Invasive Plants – Plants that may be either indigenous or non-indigenous species or strains that are characteristically adaptable, aggressive, have a high reproductive capacity and tend to overrun the ecosystems in which they inhabit.

Native (or indigenous) Plants – Plants that have adapted to a given area during a defined time period and are not invasive. In America, the term often refers to plants growing in a region prior to the time of settlement by people of European descent.

Neighborhood – An area of dwellings and/or work places and their immediate environment that residents and/or employees identify with in terms of social and economic attitudes, lifestyles, and institutions.

Post-consumer – Generated by households or by commercial, industrial and institutional facilities in their role as end-users of a product, which can no longer be used for its intended purpose.

Pre-consumer – Diverted from the waste stream during the manufacturing process. It does not include the reutilization of materials such as rework, regrind or scrap generated in a process and capable of being reclaimed within the same process that generated it.

Pre-development – Before any development occurred on the site. Pre-development conditions describe the natural conditions of the site prior to any human alteration, i.e. development of roads, buildings, etc.

Previously developed – Having pre-existing paving, construction, or altered landscapes. This does not apply to altered landscapes resulting from current agricultural use, forestry use, or use as preserved natural area.

Previously developed site – A site consisting of at least 75% **previously developed land**.

Pre-project – Before the **project** was initiated, but not necessarily before any development or disturbance took place on the site. Pre-project conditions describe site conditions as the current developer or project applicant found them.

Prime soils – Soils with chemical, hydrographic and topological properties that make them especially suited to the production of crops. The Natural Resources Conservation Agency is responsible for identifying prime soils, and they make detailed soil surveys and maps available for every county in the United States. All of the NRCS data are available for download to GIS mapping programs.

Project – The land and construction that constitutes the basis for LEED for Neighborhood Development application.

Project boundary – The outermost property line of the **project**. Projects located on publicly-owned campuses that do not have internal property lines shall delineate a sphere of influence line to be used in place of “property line.” The phrase ‘project site’ is equivalent to the land inside the project boundary.

School – An institution for the academic instruction of children or adults, technical trade school, arts school, college, or university.

Shared portions of the project – Areas of the **project** that are publicly-owned, such as streets and parks, and land and facilities that are held under common ownership by entities such as a condominium association, land trust, or privately owned corporations.

Street grid density – The density of the street network as measured in centerline miles per square mile. Areas that shall be excluded from the calculation are water bodies, parks, recreational facilities, public campus facilities (such as universities), areas preserved from development because of local, state, or federal law, land preserved from development from the prerequisites of LEED for Neighborhood Development, land that cannot be developed due to a unique topographic or geologic condition (such as steep slopes).

Toe of the slope – Where there is a distinct break between a 40% slope and lesser slopes.

Unique soils – Soils with chemical, hydrographic and topological properties that make them especially suited to specific crops. The Natural Resources Conservation Agency is responsible for identifying unique soils, and they make detailed soil surveys and maps available for every county in the United States. All of the NRCS data are available for download to GIS mapping programs.

Walk distance – The distance that a pedestrian must travel between destinations without obstruction, in a safe and comfortable environment such as on sidewalks, footpaths or other pedestrian facilities.

Water bodies – The surface water of a stream, creek, river, lake, estuary, bay, or ocean.

Weekday peak periods – Weekdays between 5:30 a.m. to 10:30 a.m. and 3:30 p.m. to 8:30 p.m. The period of time during the weekday commute when traffic congestion is the greatest.

Wetlands – Areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." <http://www.wetlands.com/regs/tlpge02e.htm> (1987 Army Corps of Engineers Manual)

Vehicle Miles Traveled (VMT) – The number of miles traveled by motor vehicles in a specified period of time, such as a day or a year, by a number of motorists in absolute or per capita terms.

Woonerf – A Dutch word that means “street for living.” In practice, it is common space shared by pedestrians, bicyclists, and low-speed motor vehicles. They are usually streets raised to the same grade as curbs and sidewalks. Vehicles are slowed by placing trees, planters, parking areas, and other obstacles in the street, so that motorists travel at walking speed.

Appendix A: List of Diverse Uses

Bank
Child care facility (licensed)
Community/civic center
Convenience store
Hair care
Hardware store
Health club or outdoor recreation facility
Laundry/dry cleaner
Library
Medical/dental office
Pharmacy (stand-alone)
Place of worship
Police/fire station
Post office
Restaurant
School
Senior care facility
Supermarket
Theater

Appendix B:

GCT Credit 9: Stormwater Management

1 to 5 Points

FEBRUARY 2007 VERSION

Note: Projects can use this version or the June 2007 version found in the GCT Section.

Intent

Reduce pollution and hydrologic instability from stormwater, prevent flooding, and promote aquifer recharge.

Requirements

OPTION 1 – FOR **PREVIOUSLY DEVELOPED SITES** OF ANY SIZE AND **INFILL SITES** OF LESS THAN 7 ACRES

Implement a comprehensive stormwater management plan for the **project** that infiltrates, re-uses, or evapotranspirates runoff from 90% of the average annual rainfall or 1” of rainfall from a percentage of the project’s **development footprint** and other areas that have been graded so as to be effectively impervious, as listed below.

Minimum 15% of the development footprint	(1 point)
Minimum 30% of the development footprint	(2 points)
Minimum 45% of the development footprint	(3 points)
Minimum 60% of the development footprint	(4 points)
Minimum 75% of the development footprint	(5 points)

OPTION 2 – FOR ALL OTHER SITES

Implement a comprehensive stormwater management plan for the project that infiltrates, re-uses, or evapotranspirates runoff from 90% of the average annual rainfall or 1” of rainfall from a percentage of the project’s **development footprint** as listed below.

Minimum 20% of the development footprint	(1 point)
Minimum 40% of the development footprint	(2 points)
Minimum 60% of the development footprint	(3 points)
Minimum 80% of the development footprint	(4 points)
Minimum 100% of the development footprint	(5 points)

Notes: a) The stormwater management plan should identify practices to be employed, such as permeable pavements, rainwater harvesting systems or green roofs.
b) For the purposes of this calculations in this credit, the development footprint will include typically impervious surfaces included in the definition of “development

footprint,” such as roofs and pavements, even though the surfaces may be made pervious as part of the stormwater management plan.

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier to access or produce than the items listed below, but still clearly verifies that the requirements have been met. The certification reviewers will evaluate the adequacy of the potential replacement documentation on a case-by-case basis.

- ❑ Provide the LEED submittal template, signed by the responsible party, declaring that the requirements have been met, and the following:

For STAGE 1 Submissions (Pre-review)

Submitting for Stage 1 is optional. If it is skipped, these items will be required at Stage 2.

All Options

- ❑ A site plan indicating the project’s development footprint, and the location of any planned stormwater management technologies or BMPs.
- ❑ A written commitment to develop and implement a comprehensive stormwater management plan to meet the requirements if the project is built.

Option 1

- ❑ A site plan indicating the size of the project and any previously developed areas (this can be done as part of the site plan listed above).

For STAGE 2 Submissions (Certification of Approved Plan)

Stage 2 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 2A: No change since Stage 1

If the project submitted at Stage 1, and project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 1” on project checklist, and submit the following additional documentation:

All Options

- ❑ A summary of the stormwater management plan, highlighting the technologies or BMPs used on the site.
- ❑ A statement of the project team’s capacity and/or qualifications to implement the plan, and/or a description of the services that will be contracted to do so.

Case 2B: Change since Stage 1

If the project submitted at Stage 1, and project conditions have changed with respect to prerequisite requirements:

- ❑ Submit updated versions of the relevant documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

Case 2C: Did not submit at Stage 1

- ☐ Submit the documentation required at Stage 1 and the additional item(s) listed above in Case 2A.

For STAGE 3 Submissions (Certification of Completed Neighborhood Development)

Stage 3 must be completed. If a project is already built, Stage 2 and 3 documentation may be submitted simultaneously.

Case 3A: No change since Stage 2

If project conditions remain unchanged with respect to credit requirements, indicate “No change since Stage 2” on project checklist, and submit the following additional post-construction documentation:

- ☐ A calculation of either 90% of the average annual rainfall or 1” of rainfall that occurs on the project’s development footprint and other effectively impervious areas.
- ☐ A calculation of the percentage of the development footprint for which runoff will be infiltrated, re-used, or evapotranspired.

Case 3B: Change since Stage 2

If project conditions have changed with respect to credit requirements:

- ☐ Submit updated versions of the relevant documentation submitted at Stage 2 and the additional item(s) listed above in Case 3A.

					Credit 13	Access to Active Public Spaces		1
					Credit 14	Universal Accessibility		1
					Credit 15	Community Outreach and Involvement		1
					Credit 16	Local Food Production		1
Yes	?	No						
0	0	0			Green Construction & Technology		31 Points Possible	
Y					Prereq 1	Construction Activity Pollution Prevention	Required	
					Credit 1	LEED Certified Green Buildings		3
					Credit 2	Energy Efficiency in Buildings		3
					Credit 3	Reduced Water Use		3
0					Credit 4	Building Reuse and Adaptive Reuse		2
		0			Credit 5	Reuse of Historic Buildings		1
					Credit 6	Minimize Site Disturbance through Site Design		1
					Credit 7	Minimize Site Disturbance during Construction		1
					Credit 8	Contaminant Reduction in Brownfields Remediation		1
					Credit 9	Stormwater Management		5
					Credit 10	Heat Island Reduction		1
					Credit 11	Solar Orientation		1
					Credit 12	On-Site Energy Generation		1
					Credit 13	On-Site Renewable Energy Sources		1
					Credit 14	District Heating & Cooling		1
					Credit 15	Infrastructure Energy Efficiency		1
					Credit 16	Wastewater Management		1
					Credit 17	Recycled Content for Infrastructure		1
					Credit 18	Construction Waste Management		1
					Credit 19	Comprehensive Waste Management		1
					Credit 20	Light Pollution Reduction		1
Yes	?	No						
0	0	0	0		Innovation & Design Process		6 Points	
					Credit 1.1	Innovation in Design: Provide Specific Title		1
0	0	0	0		Credit 1.2	Innovation in Design: Provide Specific Title		1
	0				Credit 1.3	Innovation in Design: Provide Specific Title		1
					Credit 1.4	Innovation in Design: Provide Specific Title		1
0					Credit 1.5	Innovation in Design: Provide Specific Title		1
					Credit 2	LEED® Accredited Professional		1
Yes	?	No						
0	0	0	0		Project Totals (pre-certification estimates)		106 Points	
					Certified: 40-49 points, Silver: 50-59 points, Gold: 60-79 points, Platinum: 80-106 points			

The Natural Step

From Wikipedia, the free encyclopedia

The Natural Step is a nonprofit organization founded in Sweden in 1989 by Swedish scientist, Karl-Henrik Robèrt. The Natural Step has pioneered a "Backcasting from Principles" approach to effectively advance society towards sustainability. The Natural Step has developed through a consensus process a systematic principle definition of sustainability.



Sustainable development Portal

Following publication of the Brundtland Report in 1987, Robèrt developed *The Natural Step Framework*, setting out the *system conditions* for the sustainability of planet Earth. Robèrt's four system conditions are derived from the laws of thermodynamics.

Contents

Towards sustainability

Sustainability essentially means preserving life on Earth, including human civilization. Meeting human needs is thus vital in creating a sustainable society. It follows that one of The Natural Step's principles of sustainability is to avoid subjecting people to conditions which undermine their capacity to meet their needs.

The other three principles focus on interactions between humans and the planet. They are based in science and supported by the analysis that ecosystem functions and processes are altered in the following ways:

- Society mines and disperses materials faster than they are returned to the Earth's crust (examples include oil, coal and metals such as mercury and lead).
- Society produces substances faster than they can be broken down by natural processes—if they can be broken down at all (examples of such substances include dioxins, DDT and PCBs).
- Society depletes or degrades resources faster than they are regenerated (for example, over-harvesting of trees or fish), or by other forms of ecosystem manipulation (for example, paving over fertile land or causing soil erosion).

The Natural Step Framework

Overview of the science

The First and Second Laws of Thermodynamics set limiting conditions for life on earth: The First Law says that energy is conserved—nothing disappears. Only its form may change. Another way of stating this is: "Energy cannot be created, or destroyed, only modified in form." The implications of the Second Law are that matter and energy tend to disperse over time. This is referred to as "entropy." Putting the two laws together and applying them to our planetary system, the following facts become apparent:

1. All the matter that will ever exist on earth is here now (First Law).

2. Disorder increases in all closed systems and the Earth is a closed system with respect to matter (Second Law). However it is an open system with respect to energy since it receives energy from the sun.
3. Sunlight is responsible for almost all increases in net material quality on the planet through photosynthesis and solar heating effects. Chloroplasts in plant cells take energy from sunlight for plant growth. Plants, in turn, provide energy for other forms of life, such as animals. Evaporation of water from the oceans by solar heating produces most of the earth's fresh water. This flow of energy from the sun creates structure and order from the disorder.

In 1989, Robèrt wrote a paper describing the system conditions for sustainability, given the laws of thermodynamics. He sent it to 50 scientists. He asked that they tell him what was wrong with his paper. On version twenty-two Robèrt had consensus on what was to become *The Natural Step*.

System conditions of sustainability

The Natural Step Framework's definition of sustainability includes four system conditions (scientific principles) that lead to a sustainable society. These conditions, that must be met in order to have a sustainable society, are as follows:

In a sustainable society, nature is not subject to systematically increasing:

1. concentrations of substances extracted from the Earth's crust;
2. concentrations of substances produced by society;
3. degradation by physical means
and, in that society. . .
4. people are not subject to conditions that systematically undermine their capacity to meet their needs.

On making change happen

In an article in *In Context* in 1991, Robèrt described how *The Natural Step Framework* would create change:

I don't believe that the solutions in society will come from the left or the right or the north or the south. They will come from islands within those organizations; islands of people with integrity who want to do something...

This is what a network should do - identify the people who would like to do something good. And they are everywhere. This is how the change will appear - you won't notice the difference. It won't be anyone winning over anyone. It will just spread. One day you don't need any more signs saying "Don't spit on the floor," or "Don't put substances in the lake which can't be processed." It will be so natural. It will be something that the intelligent people do, and nobody will say that it was due to The Natural Step or your magazine. It will just appear.

—Robèrt Karl-Henrik, 1991. "That Was When I Became A Slave." Excerpts from an interview by Robert Gilman and Nikolaus Wyss *In Context*, #28 [1]
(<http://www.context.org/ICLIB/IC28/Robert.htm>)

Communities such as Whistler, British Columbia, Canada and corporations such as Interface and IKEA have adopted the Natural Step and become more sustainable (hence more profitable) as a result. Both

these companies have completely re-thought their business and have examined and changed all their processes including purchase of materials, manufacturing, transportation, construction of facilities, maintenance and waste management. One advantage of adopting the Natural Step is that it provides principles that are grounded in science and thus measurable.

References

- James, S. and T. Lahti, (2004). *The Natural Step for Communities: How Cities and Towns can Change to Sustainable Practices*. Gabriola Island, BC: New Society Publishers (<http://www.newsociety.com/>)
- Nattrass, B. and M. Altomare. (2002). *Dancing with the Tiger: Learning Sustainability Step by Natural Step*. Gabriola Island, BC: New Society Publishers.
- Nattrass, B. and M. Altomare (1999). *The Natural Step for Business: Wealth, Ecology and the Evolutionary Corporation*. Gabriola Island, BC: New Society Publishers.
- Robert, Karl-Henrik. (2002). *The Natural Step Story: Seeding a Quiet Revolution*. Gabriola Island, BC: New Society Publishers.
- Waage, S. (Ed.) 2003. *Ants, Galileo, and Gandhi: Designing the Future of Business Through Nature, Genius, and Compassion*. Sheffield, UK: Greenleaf Press. Greenleaf Publishing (<http://www.greenleaf-publishing.com/>).

See also

- Eco-municipality
- Simple living
- Sustainable design
- Strategic Sustainable Development

External links

- Educating A Nation: The Natural Step (<http://www.context.org/ICLIB/IC28/Robert.htm>)
- *The Natural Step* (<http://www.naturalstep.org/>)
- Master's programme for Strategic Leadership Towards Sustainability (<http://www.bth.se/tmslm>)

Retrieved from "http://en.wikipedia.org/wiki/The_Natural_Step"

Categories: Sustainability

-
- This page was last modified on 3 February 2008, at 03:33.
 - All text is available under the terms of the GNU Free Documentation License. (See **Copyrights** for details.) Wikipedia® is a registered trademark of the Wikimedia Foundation, Inc., a U.S. registered 501(c)(3) tax-deductible nonprofit charity.