



Applying the 2020 Enterprise Green Communities Criteria in Rural America

August 20, 2020

Workshop outcomes

- Review revised programmatic definition of what qualifies as a rural project and changes to rural mandatory criteria
- Identify highlights of the 2020 Criteria from the perspective of a rural project
- Identify resources to assist with certification

Enterprise Green Communities

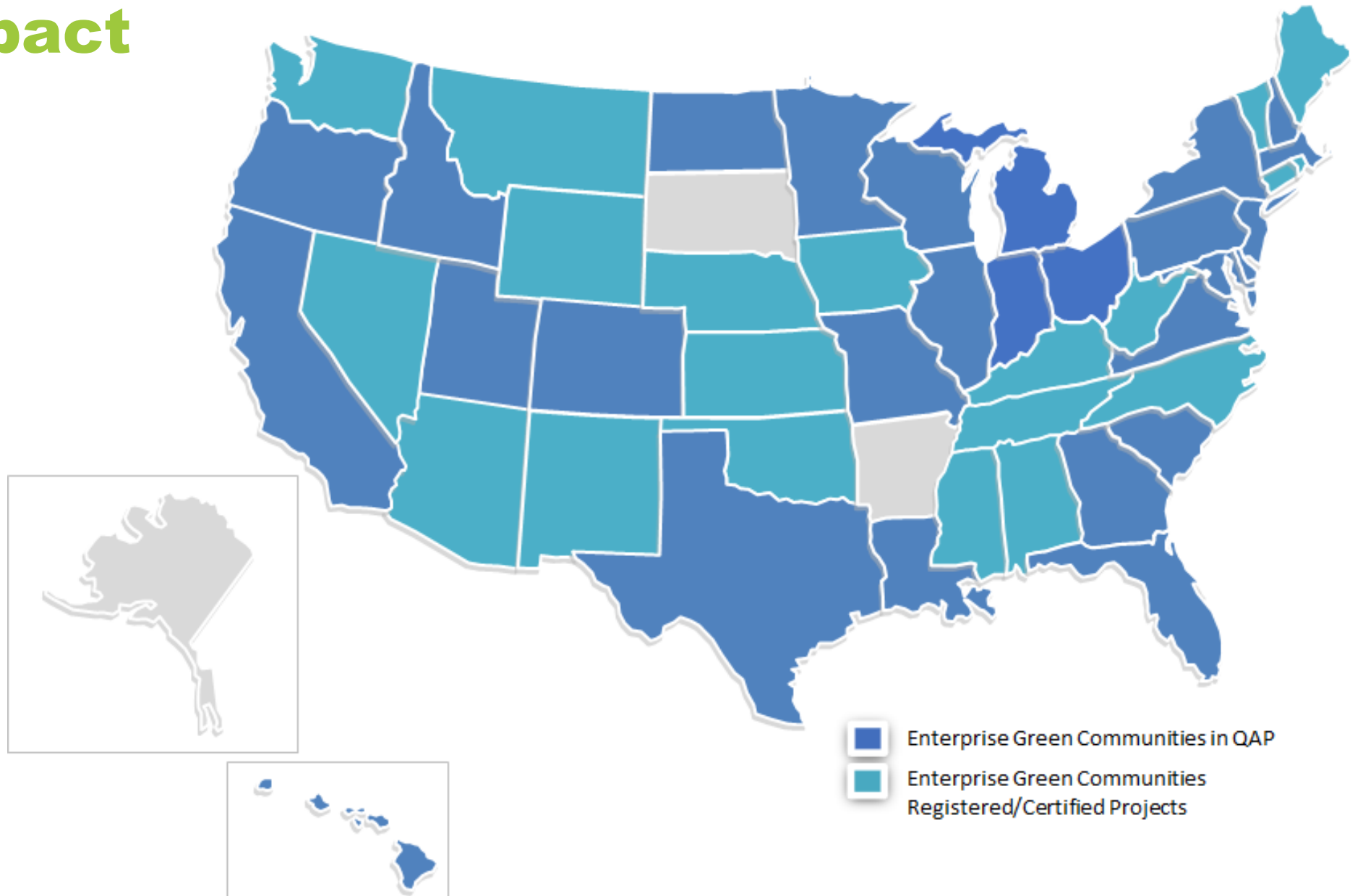
Established in 2004, Enterprise Green Communities is transforming the way America thinks about, designs, builds, and rehabilitates affordable housing.

Green building integrates materials and methods that promote **environmental quality, economic vitality, and social benefits** through design, construction and operations of the built environment.

Enterprise Green Communities aligns affordable housing investment strategies with environmentally responsive building practices.

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Our impact



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Enterprise Green Communities Criteria



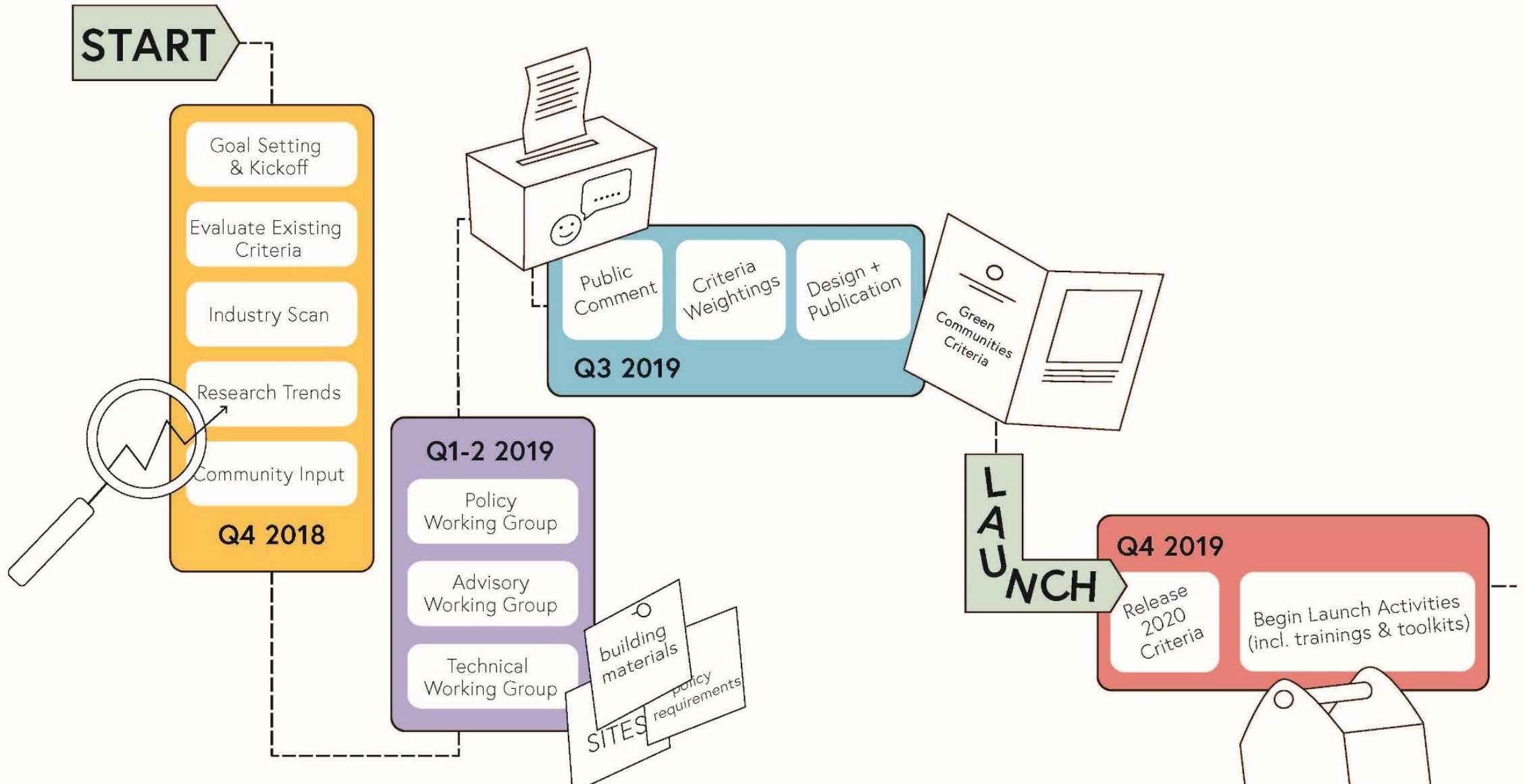
Enterprise Green Communities Criteria

We've relied on the following set of guiding principles:

- Achievable for all affordable housing development types (new construction, substantial and moderate rehab; single family, and low to high-rise multifamily);
- Cost-effective and proven green development approaches;
- Designed to deliver significant health, economic and environmental benefits;
- Technically sound and rigorous performance standards that are best in class and comparable to other national and regional green residential programs;
- Measurable and verifiable (whether through paper or field review).

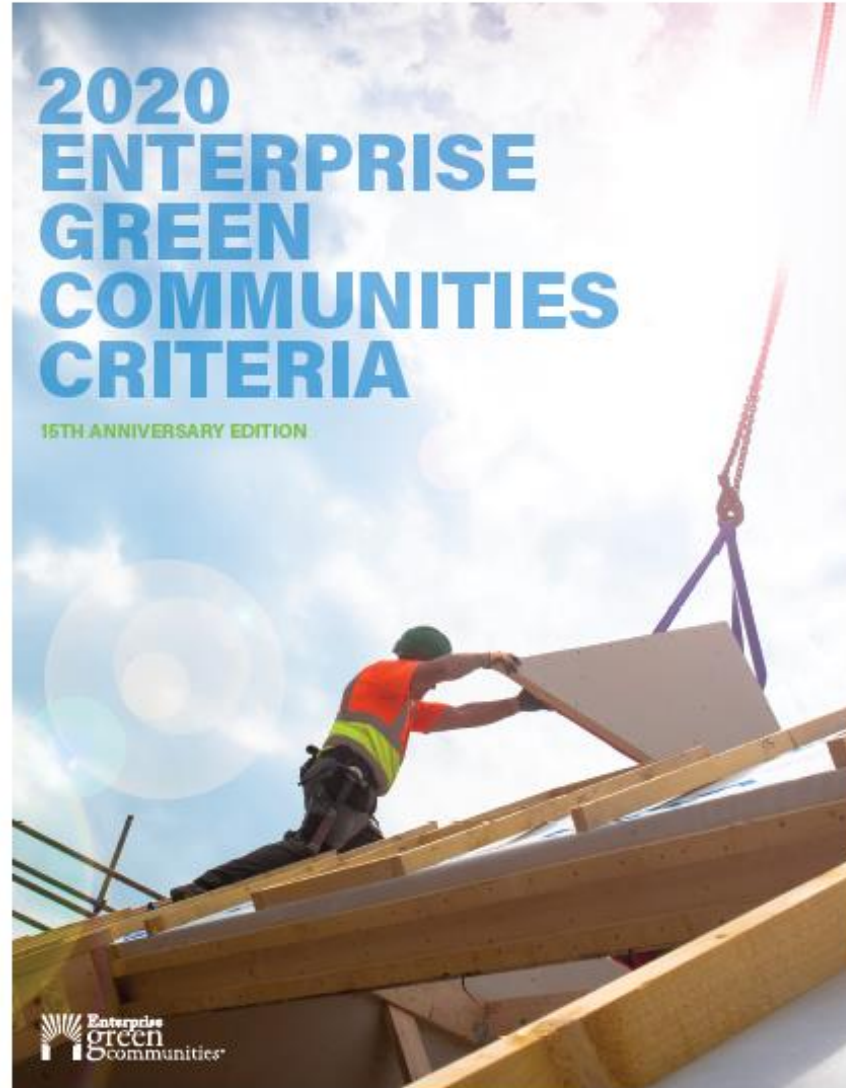
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Enterprise Green Communities Criteria



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"It's my feeling that you give somebody a good place to live ... it will just change their lives forever."

Resident of Enterprise Green Communities property

Imagine a world where housing for low and moderate income people was not only abundant, but also healthy, safe, durable, comfortable, efficient, resilient, beautifully designed, and environmentally responsible.

And imagine that these exemplary homes are not just demonstrations of excellence, but the standard manner of designing, building, and operating high quality affordable housing.

As a community of housing providers, we have an opportunity to make this vision our reality, addressing today's affordability challenges and the impacts of our changing climate.

Integrative Design

- Integrative Design ties it all together!
- The 2020 Criteria has restructured Integrative Design; better enabling teams to establish context, population, and environmental considerations for the project, residents and community.
- New opportunities for deep engagement with communities and site factors are offered, and a process for clear communication of project priorities is established.



INTEGRATIVE DESIGN

1.2 Integrative Design: Charrettes & Coordination Meetings *(Mandatory)*

REQUIREMENTS:

- Develop an integrative design process that works best for your project team and intentions, per the criteria.

1.4 Integrative Design: Construction Management *(Mandatory)*

REQUIREMENTS:

- Create, implement, and document a contractor, subcontractor, and consultant education plan to ensure that those working on-site fully understand their role in achieving the project objectives

INTEGRATIVE DESIGN

1.7 Resilient Communities: Strengthening Cultural Resilience *(Optional, 8 pts)*

REQUIREMENTS:

- Option 1: Complete a Cultural Resilience Assessment
- Option 2: Convene a Cultural Advisory Group

2020 GREEN COMMUNITIES CRITERIA

Location + Neighborhood Fabric



2.1 Sensitive Site Protection

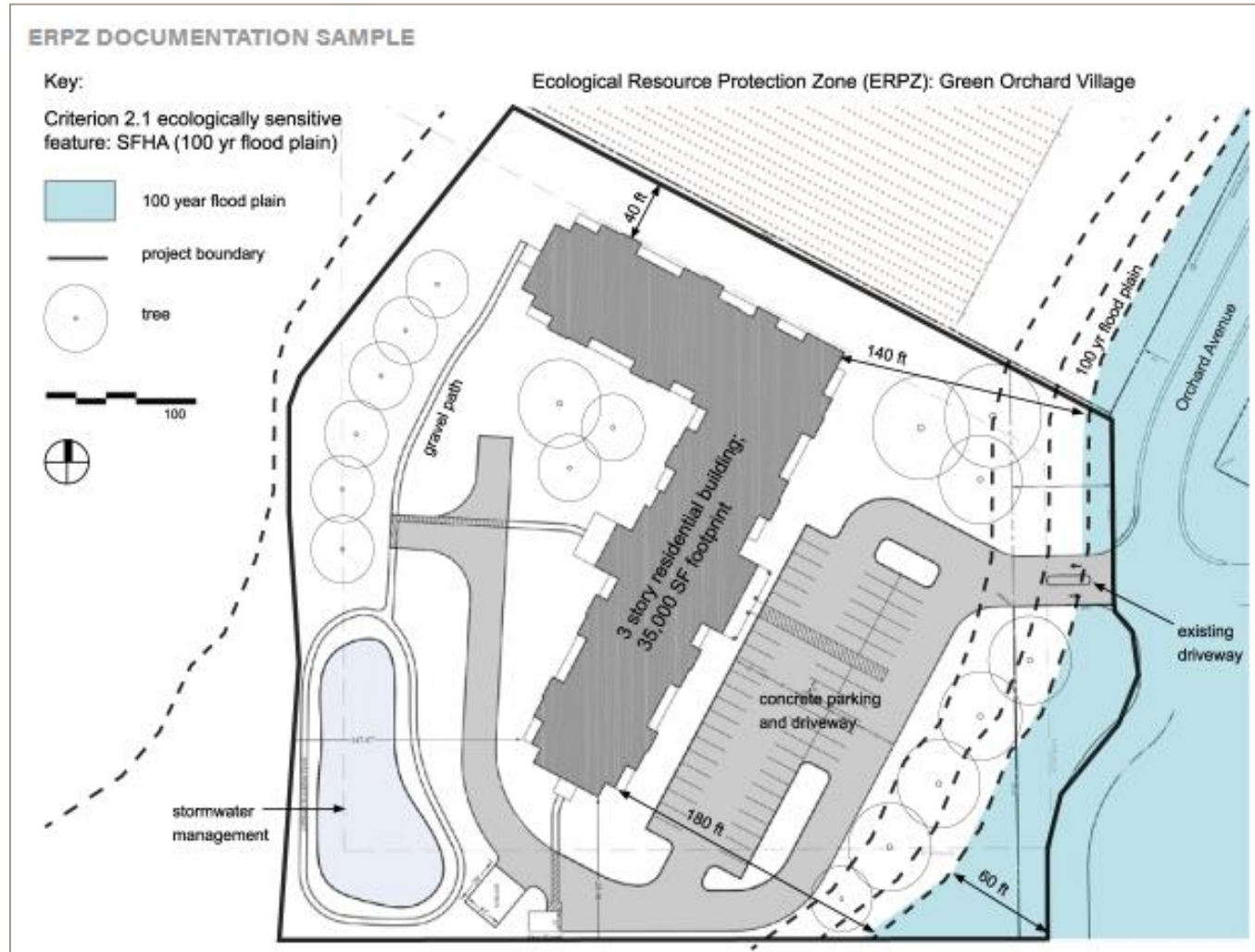
(Mandatory)

REQUIREMENTS:*

- Protect floodplain functions
- Conserve and protect aquatic ecosystems.
- Protect ecosystem function
- Conserve the most productive agricultural soils

** Note: Refer to 2020 Criteria Manual for full requirements.*

2.1 Sensitive Site Protection - Sample ERPZ



INTEGRATIVE DESIGN

2.3 Compact Development *(Mandatory)*

REQUIREMENTS:

In Rural/Tribal/Small Town locations that do not have zoning requirements: Build to a minimum net density of 5 units per acre for single-family houses; 10 units per acre for multifamily buildings, single and two-story; and 15 units per acre for multifamily buildings greater than two stories.

2.4 Compact Development *(Optional)*

REQUIREMENTS:

- In Rural/Tribal/Small Towns that do not have zoning requirements, build to a minimum net density of 7.5 units per acre for single-family houses; 12 units per acre for multifamily buildings, single and two-story; and 20 units per acre for multifamily buildings greater than two stories

INTEGRATIVE DESIGN

2.5 Proximity to Services *(Mandatory)*

REQUIREMENTS:

For projects that qualify as Rural/Tribal/Small Town, locate your project within 5 miles of at least four services.

2.6 Preservation of and Access to Open Space *(Mandatory)*

REQUIREMENTS:

Option 1

- Locate the project within a 0.25-mile walk distance of dedicated, public open space that is a minimum of 0.75 acres and is open and accessible to all residents. A minimum of 80% of the public open space must be non-paved.

Option 2

- Set aside a minimum of 10% (minimum of 0.25 acre) of the total project acreage as permanent open space that is open and accessible to all residents. A minimum of 80% of the open space must be non-paved.

2.15a Access to Broadband: Broadband Ready *(Mandatory)*

2.15b Access to Broadband: Connectivity

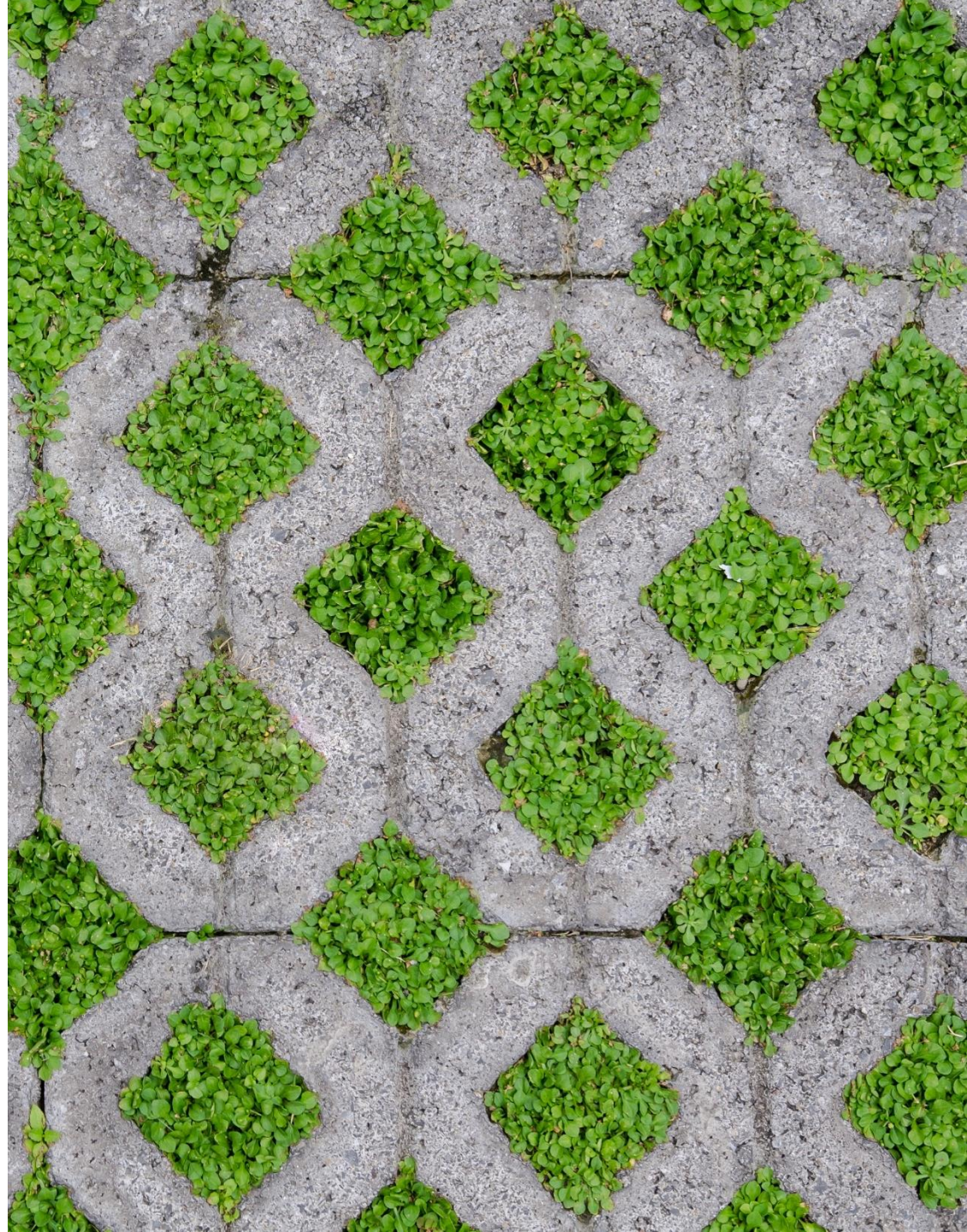
REQUIREMENTS:*

2.15a: Design and build or retrofit the property to incorporate broadband infrastructure so that when broadband service comes to a community, the property can be easily connected.

2.15b: Ensure that all units and common amenity spaces in the property have broadband internet access with at least a speed of 25mbps for downloading and 3mbps for uploading (25/3).

** Note: Refer to 2020 Criteria Manual for full requirements.*

Site Improvements



SITE IMPROVEMENTS

3.2 Minimization of Disturbance during Staging and Construction

REQUIREMENTS:

For sites larger than one acre, implement U.S. Environmental Protection Agency (EPA)'s National Pollutant Discharge Elimination System (NPDES)'s Stormwater Discharges from Construction Activities guidance, or local requirements, whichever is more stringent.

For sites with an area equal to or less-than one acre, complete the following:

- Stockpile and protect high-quality topsoil from erosion, for reuse.
- Control the path and velocity of runoff with silt fencing or comparable measures.
- Protect ERPZs, on-site storm sewer inlets, watercourses and water bodies with straw bales, silt fencing, silt sacks, rock filters, or comparable measures.
- Provide swales to divert surface water from hillsides.
- Identify and protect significant, high value trees during construction (healthy tree with a diameter at breast height greater than 6"). Install tree protection fencing outside the critical root zone.
- If soil in a sloped area is disturbed during construction, use tiers, erosion blankets (geotextile mats), compost blankets, filter socks and berms, or some comparable approach, to keep soil stabilized.

SITE IMPROVEMENTS

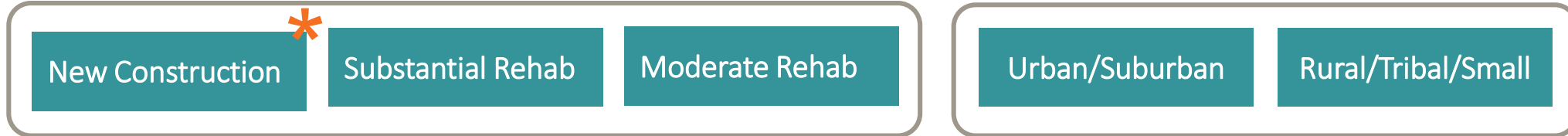
3.3 Ecosystem Services/Landscaping

REQUIREMENTS:

If providing plantings, all plantings (trees, shrubs and groundcover, including grasses) should be native or climate-appropriate (adapted) to the region. All new plantings must be appropriate to the site's soil and microclimate. Do not introduce any invasive plant species. All disturbed areas should be planted, seeded or xeriscaped.

SITE IMPROVEMENTS

3.4 Surface Stormwater Management



REQUIREMENTS:

Treat or retain, on-site, the precipitation volume from the 60th percentile precipitation event as defined by the U.S. Environmental Protection Agency in the Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act.

INTEGRATIVE DESIGN

3.6 Efficient Irrigation and Water Reuse

REQUIREMENTS:

If irrigation is utilized, install an efficient irrigation system. These irrigation requirements are mandatory only for permanent landscaping that requires regular irrigation.

3.7 Efficient Irrigation and Water Reuse

REQUIREMENTS:

Option 1

- Design and install an efficient irrigation system equipped with a WaterSense labeled weather-based irrigation controller (WBIC).

Option 2

A minimum of 50% of the site's irrigation should reuse water from one, or multiple, of the following sources:

- treated greywater; captured rainwater, collected from the roof or site; water from a municipal recycled water system specifically treated for non-potable uses

2020 GREEN COMMUNITIES CRITERIA

Water



2020 GREEN COMMUNITIES CRITERIA

4.1 Water-Conserving Fixtures *(Mandatory)*

New Construction

Substantial Rehab

Moderate Rehab

Urban/Suburban

Rural/Tribal/Small

4.2 Advanced Water Conservation *(Optional, 6 points max)*

New Construction

Substantial Rehab

Moderate Rehab

Urban/Suburban

Rural/Tribal/Small

% reduction in total indoor water consumption	Points?
20%	<i>Mandatory</i>
30%	3
40%	4
50%	5
60%	6

WATER

4.3 Water Quality

Lead Service Lines

New Construction

Substantial Rehab *

Moderate Rehab

Urban/Suburban

Rural/Tribal/Small

**Mandatory for Substantial Rehabs of buildings built before 1986. Optional for all other building types. [3 points]*

Legionella management

Mandatory for multifamily buildings with either a cooling tower, a centralized hot water system, or more than 10 stories in height.

Test water from dwelling unit faucets

Optional for all building types. [8 points]

Operating Energy



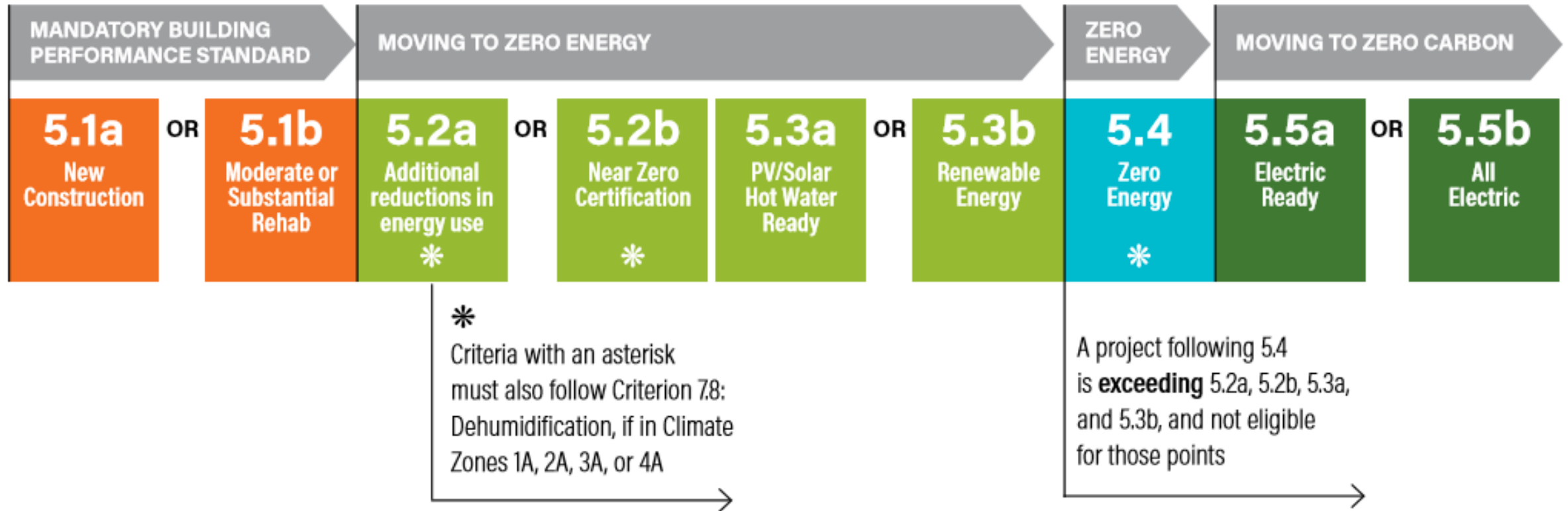
2020 GREEN COMMUNITIES CRITERIA

Operating Energy

- 5.1a Building Performance Standard (New Construction)
- 5.1b Building Performance Standard (Substantial and Moderate Rehab)
- 5.2a Moving to Zero Energy: Additional Reductions in Energy Use
- 5.2b Moving to Zero Energy: Near Zero Certification
- 5.3a Moving to Zero Energy: Photovoltaic/Solar Hot Water Ready
- 5.3b Moving to Zero Energy: Renewable Energy
- 5.4 Achieving Zero Energy
- 5.5a Moving to Zero Carbon: All-Electric Ready
- 5.5b Moving to Zero Carbon: All-Electric
- 5.6 Sizing of Heating and Cooling Equipment
- 5.7 ENERGY STAR Appliances
- 5.8 Lighting
- 5.9 Resilient Energy Systems: Floodproofing
- 5.10 Resilient Energy Systems: Critical Loads

OPERATING ENERGY

Path to zero



Materials



2020 GREEN COMMUNITIES CRITERIA

Materials

- 6.1 Ingredient Transparency for Material Health
- 6.2 Recycled Content and Ingredient Transparency
- 6.3 Chemical Hazard Optimization
- 6.4 Healthier Material Selection
- 6.5 Environmentally Responsible Material Selection
- 6.6 Bath, Kitchen, Laundry Surfaces
- 6.7 Regional Materials
- 6.8 Managing Moisture: Foundations
- 6.9 Managing Moisture: Roofing and Wall Systems
- 6.10 Construction Waste Management
- 6.11 Recycling Storage

Materials

6.4 Healthier Material Selection

PRODUCT CATEGORY	MANDATORY	OPTIONAL	RECOMMENDATIONS
<p>All interior paints, coatings, primers and wallpaper</p>	<p>VOC content less than or equal to the thresholds provided by the most recent version of SCAQMD 1113 available at time of product specification for all interior paints, coatings and primers.</p> <p>VOC emissions verified as compliant with CDPH Standard Method for all wall finish paints.</p> <p>All wallpaper, phthalate free</p>	<p>1 point per APE-free paint, coating and/or primer</p> <p>1 point per CDPH-compliant coating and/or primer (excluding wall finish paints)</p> <p><i>[2 points maximum]</i></p>	<p>See Appendix for table of SCAQMD 1113 VOC limits</p> <p>For wall finish paints compliant with the mandatory CDPH specification, seek those certified to Master Painters Institute (MPI) X-Green, Green Wise Gold, GREENGUARD Gold, SCS Indoor Advantage Gold, and Berkeley Analytical ClearChem. GS-11 paints comply with the optional APE-free criterion, as do Red List-free products.</p>
<p>All interior adhesives and sealants</p>	<p>VOC content less than or equal to the thresholds provided by the most recent version of SCAQMD 1168 available at time of product specification for all interior adhesives and sealants.</p>	<p>Use of sealants that do not contain orthophthalate plasticizers. Use of adhesives that are CDPH compliant.</p> <p><i>[1 point per compliant product, 2 points maximum]</i></p>	<p>See Appendix for table of SCAQMD 1168 VOC limits</p> <p>Orthophthalate plasticizers are common in polyurethane and modified polymer sealants. While not common, they may also be found in some acrylic latex or siliconized acrylic</p>

2020 GREEN COMMUNITIES CRITERIA

Healthy Living Environment



2020 GREEN COMMUNITIES CRITERIA

Healthy Living Environment

REDUCING EXPOSURE TO ENVIRONMENTAL HAZARDS

- 7.1 Radon Mitigation
- 7.2 Reduce Lead Hazards in Pre-1978 Buildings
- 7.3 Combustion Equipment
- 7.4 Garage Isolation
- 7.5 Integrated Pest Management
- 7.6 Smoke-Free Policy

MANAGING THE INDOOR ENVIRONMENT

- 7.7 Ventilation
- 7.8 Dehumidification
- 7.9 Construction Pollution Management
- 7.10 Noise Reduction

PROMOTING HEALTH THROUGH DESIGN

- 7.11 Active Design: Promoting Physical Activity
- 7.12 Beyond ADA: Universal Design
- 7.13 Healing-Centered Design

2020 GREEN COMMUNITIES CRITERIA

Operations, Maintenance + Resident Engagement



Operations, Maintenance + Resident Engagement

- 8.1 Building Operations & Maintenance Manual and Plan
- 8.2 Emergency Management Manual
- 8.3 Resident Manual
- 8.4 Walk-Throughs and Orientations to Property Operation
- 8.5 Energy and Water Data Collection and Monitoring

Operations, Maintenance + Resident Engagement

8.5 Energy and Water Data Collection and Monitoring

Mandatory, except for detached single-family buildings

Method A: Properties with Only Owner-Paid Utility Bills

The property owner pays for 100% of the property's utility bills and uses these bills as the source for tracking whole-property utility data.

Method B: Aggregated, Whole-Property Utility Data

Regardless of the split of owner-paid and tenant-paid utility bills across the property, the property owner requests aggregated whole-property utility data from the utility provider(s).

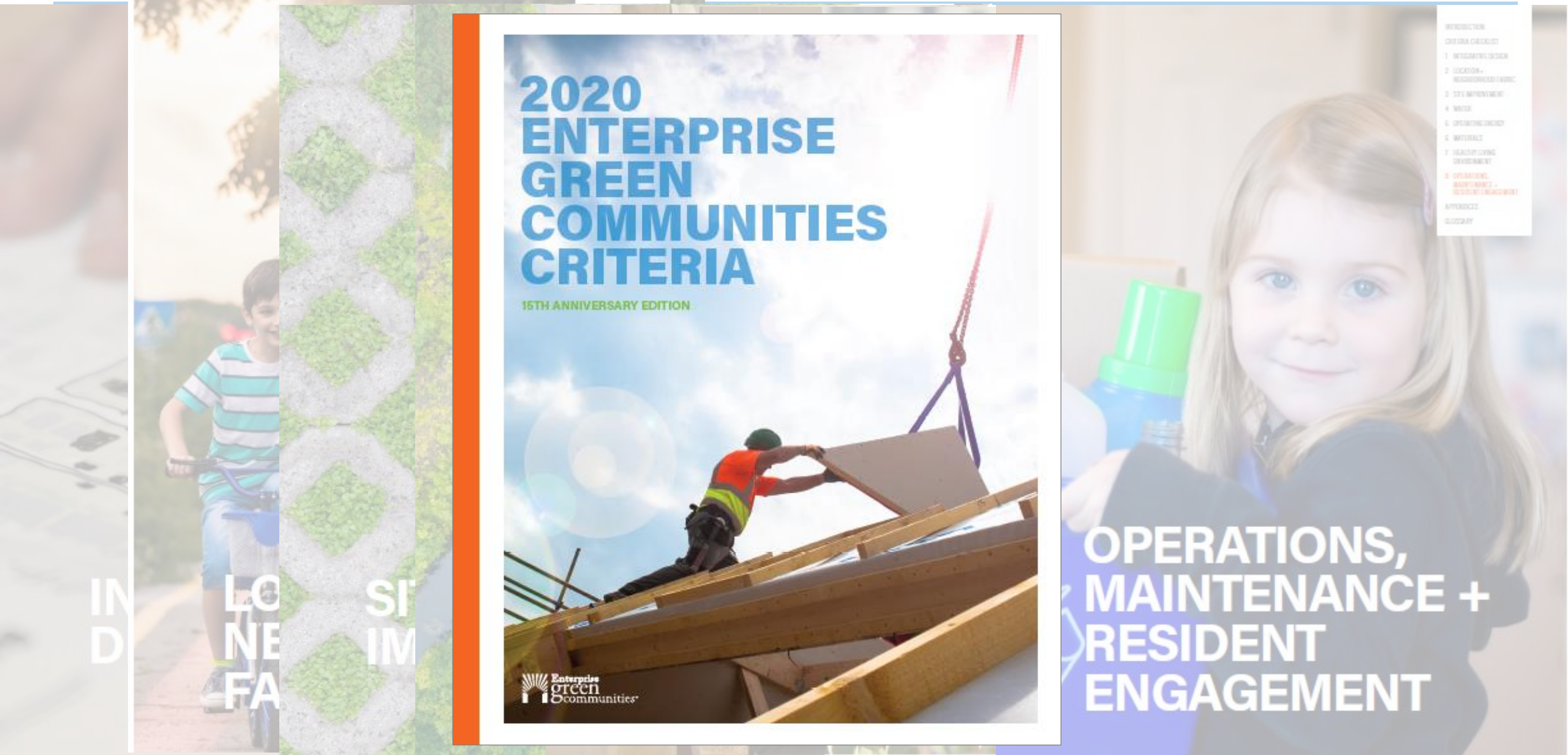
Method C: Collection of 100% of Tenant-Paid Utility Data

The property owner collects 100% of the individual tenant-paid utility data from the utility provider(s) or tenants and tracks these along with owner-paid accounts..

Method D: Collection of a Sample of Tenant-Paid Utility Data

The property owner collects a sample of individual tenant-paid utility data from the utility provider(s) or tenants, which is then used to produce an estimate of whole-property utility data along with the owner-paid accounts. Project teams may either use the Better Buildings Challenge sampling protocol, found in Appendix C of the Better Buildings Challenge Data Manual, or HUD's Assisted Housing Utility Allowance Calculations sampling protocol, found in Part VI of HUD Notice H-2015-04, to extrapolate the whole building data from the sample set. Note, when sampled tenant-paid utility data is used to estimate whole-property data, the "Estimation" box must be checked when submitting the data in ENERGY STAR Portfolio Manager.

Enterprise Green Communities Criteria



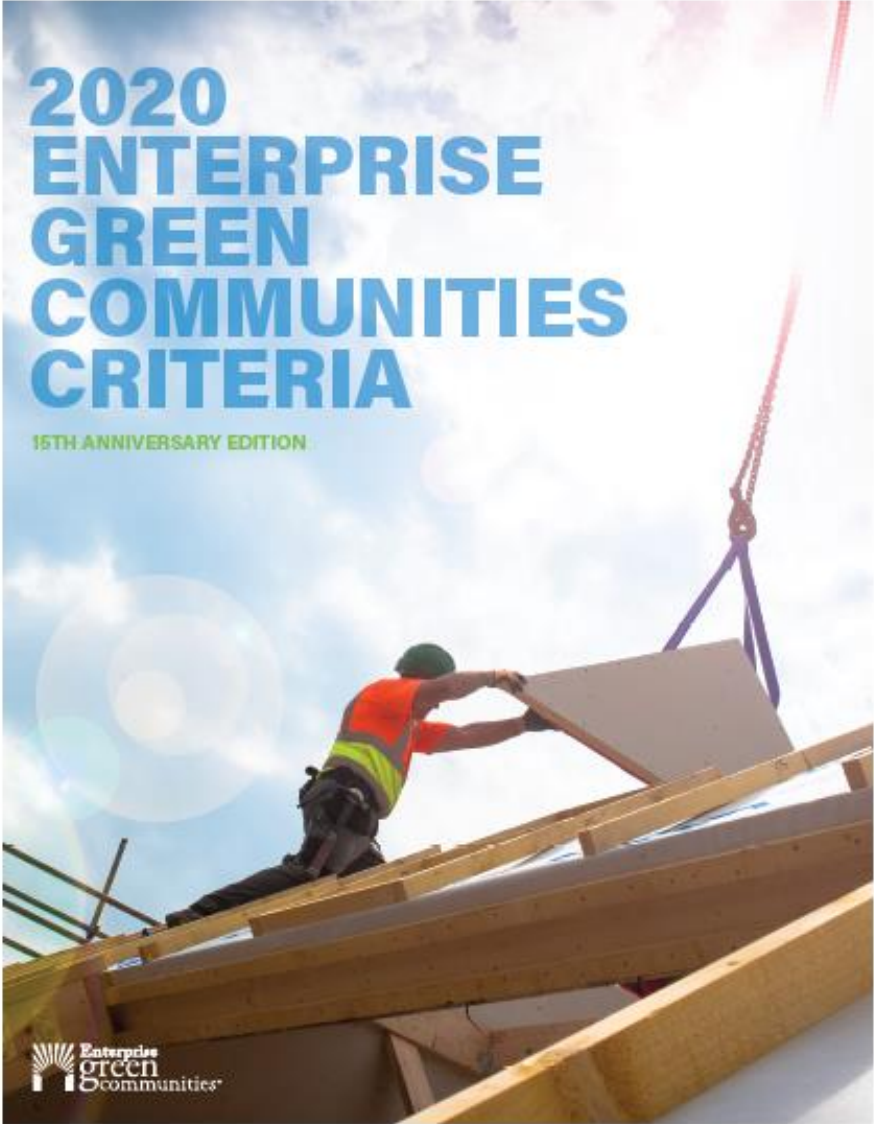
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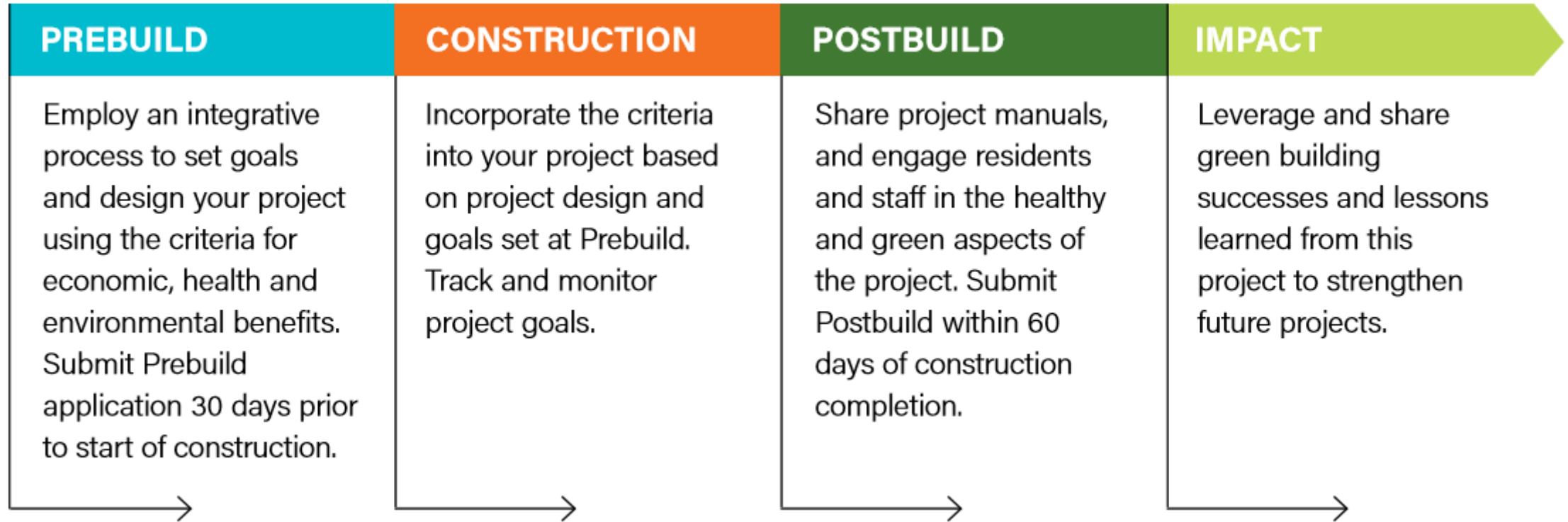
- INTRODUCTION
- CRITERIA CHECKLIST
- 1 INTEGRATIVE DESIGN
- 2 LOCATION + NEIGHBORHOOD FABRIC
- 3 SITE IMPROVEMENT
- 4 WATER
- 5 OPERATING ENERGY
- 6 MATERIALS
- 7 HEALTHY LIVING ENVIRONMENT
- 8 OPERATIONS, MAINTENANCE + RESIDENT ENGAGEMENT
- APPENDICES
- GLOSSARY

OPERATIONS,
MAINTENANCE +
RESIDENT
ENGAGEMENT

Enterprise Green Communities Criteria



Certification Process



Q & A

Thank you

Program: www.enterprisecommunity.org/green

Criteria: www.greencommunitiesonline.org

Questions? **Reach out!** certification@enterprisecommunity.org