



Specifications Guide 1/1/15

Specifications Guide

Ensure Inclusion of Certified Green Builders on Your Project

Introduction

This Specification Guide contains suggested specification requirements and language for projects to be constructed in compliance with the GA30 and the enhanced GA3030 standards. Green Advantage offers two sets of specifications for the inclusion of a strong percentage of certified green builders on a project.

The first set of specifications, *Specification Requirements Guide Divisions 00 and 01*, calls for Green Advantage certified personnel on projects. The second set of specifications, *Non-proprietary Specification for Workforce Certification* (packaged as a single division), calls for a certified workforce that holds an ANSI/ISO/IEC 17024 accredited green builder certification. Projects seeking LEED certification may use the language in this Specifications Guide for GA30, GA3030, or *Non-proprietary Specification for Workforce Certification (packaged as a single division)* to require compliance with the Green Advantage Innovation in Design Credit. Such credit is approved for eligible commercial projects registering under LEED-NC v2.2, LEED 2009 BD&C, and LEED v4 by USGBC. Regardless of whether LEED certification is pursued, any project team may use the language in this document to set a standard for green builder knowledge, best practices, and leadership on the project site.

1. Specification Requirements Guide Divisions 00 and 01

The GA30 outlines the use on a project of 30% of key supervisory personnel who hold the Green Advantage Certified Practitioner (GACP) credential. The GA3030 includes the GA30 specification and also requires that 30% of non-supervisory personnel on a project hold the Green Advantage Certified Associate (GACA) credential. GA30 and GA3030 specifications were authored by Vivian Voltz, RA, CSI, CCS, LEED AP.

2. Non-proprietary Specification for Workforce Certification (packaged as single division)

Governments or other organizations that prefer to avoid proprietary, sole source designations, such as specifically naming *Green Advantage personnel certification*, can instead reference an equivalent ANSI accredited 17024 supervisory personnel certification that meets the specifications below:

A green builder certification that is:

- ANSI/ISO/IEC 17024 accredited
- designed specifically for construction supervisory personnel
- applicable across trades
- focused on means, methods, materials and best practices that apply to the major components of green construction including: sites; water; energy; IEQ; and the process of construction (e.g. sequencing, materials storage, efficiency, and management green building risks), and emphasizes:
 - cost controls and reduction of callbacks
 - crew collaboration
 - health and safety issues particular to green building
- applicable to (and neutral to and independent from) prominent green building rating systems, codes, and standards.

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The Green Advantage Certified Practitioner (GACP) certification meets the above requirements. Because GACP is the only certification that currently meets the above requirements, if 30% of key supervisory personnel meet the non-proprietary specification above, they will conform to requirements for the LEED Innovation Credit associated with the use of Green Advantage certified personnel.

This specification has been packaged under one division number so that it can be added on a project-by-project basis with relative ease. It was authored by Axiom Sustainable Consulting. Axiom permits its use on projects, subject to the terms listed in Section 1.3.

Document Coordination

In some portions of the suggested language, options are available for more restrictive or more flexible requirements for GACPs and GACAs. For each procurement document and specification section below that applies to the work of your project, insert the suggested text and edit it for your project's needs. Suggested language is represented in black text. Optional text **[in bold and brackets]** may be retained or deleted according to the project's needs.

Sequencing of Personnel Certification Requirements

Before incorporating the suggested language into procurement documents, determine whether potential contractors must demonstrate their ability to meet the selected specification at the time of the bid or proposal, or whether it is sufficient for personnel to meet the standard before the Notice to Proceed.

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I. Specification Requirements Guide Divisions 00 and 01 for GA30 & GA3030

Requirements for GA30 and GA3030 may occur in some or all of the following Project Manual documents. Insert the suggested language into the documents used for your project.

SUGGESTED LANGUAGE FOR PROCUREMENT DOCUMENTS – DIVISION 00

PROCUREMENT DOCUMENT 00 11 13 - ADVERTISEMENT FOR BIDS

PROCUREMENT DOCUMENT 00 11 16 - INVITATION TO BID

PROCUREMENT DOCUMENT 00 11 15 - ADVERTISEMENT FOR PREQUALIFICATION OF BIDDERS

PROCUREMENT DOCUMENT 00 11 53 - REQUEST FOR QUALIFICATIONS

PROCUREMENT DOCUMENT 00 21 13 - INSTRUCTIONS TO BIDDERS

PROCUREMENT DOCUMENT 00 22 13 - SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

PROCUREMENT DOCUMENT 00 41 00 - BID FORM

PROCUREMENT DOCUMENT 00 49 93 - BID SUBMITTAL CHECKLIST

PROCUREMENT DOCUMENT 00 11 13 - ADVERTISEMENT FOR BIDS

AND/OR

PROCUREMENT DOCUMENT 00 11 16 - INVITATION TO BID

Notify bidders of the requirement for Green Advantage Certified Practitioners™ and Green Advantage Certified Associates™ in the applicable document or documents used to advertise or invite bids or proposals.

1.X BIDDER'S QUALIFICATIONS

Retain the following for GA30. To allow bidding by contractors whose key supervisory personnel are not yet certified by Green Advantage, retain the two options (A.1. and A.2.)

- A. Green Advantage Certified Practitioners: See Section 01 40 00 "Quality Requirements".
 - 1. 30 percent or more of each Bidder's key supervisory personnel shall be Green Advantage Certified Practitioners **[or, shall be Green Advantage Certified Practitioners at least two weeks prior to the Notice to Proceed]**.
 - 2. 30 percent or more of the aggregate of subcontractors' key supervisory personnel shall be Green Advantage Certified Practitioners **[or, shall be Green Advantage Certified Practitioners at least two weeks prior to the Notice to Proceed]**.

Retain the following additional language for GA3030. To allow bidding by contractors whose tradespeople are not yet certified by Green Advantage, retain one of the options in 3. below. First option requires certifying prior to the Notice to Proceed, and second option requires certifying prior to each trade's first scheduled workday.

- 3. 30 percent or more of the aggregate of contractors and subcontractors' non-supervisory personnel and 30 percent or more of each trade shall be Green Advantage Certified Practitioners or Green Advantage Certified Associates **[or, shall be Green Advantage Certified**

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Practitioners or Green Advantage Certified Associates at least two weeks prior to the Notice to Proceed] [or, shall be Green Advantage Certified Practitioners or Green Advantage Certified Associates at least two weeks prior to the first scheduled workday of each trade].

PROCUREMENT DOCUMENT 00 11 15 - ADVERTISEMENT FOR PREQUALIFICATION OF BIDDERS

AND/OR

PROCUREMENT DOCUMENT 00 11 53 - REQUEST FOR QUALIFICATIONS

1.X QUALIFICATIONS OF PROSPECTIVE BIDDERS

A. Prospective bidders' qualifications will be evaluated by Owner according to the following criteria:

Add the paragraph below to the list of criteria by which bidders will be evaluated. Retain both options for GA3030.

1. Green Advantage Certified Practitioners **[and Green Advantage Certified Associates]**: Preference may be shown to Bidders submitting existing Green Advantage Certified Practitioners **[and Green Advantage Certified Associates]** among project and field management staff. [Alternatively, see Non-proprietary Specification for Workforce Certification, Section 01 40 00 Quality Requirements for key Contractor and subcontractor personnel (GACP equivalent)].

PROCUREMENT DOCUMENT 00 21 13 - INSTRUCTIONS TO BIDDERS

AND/OR

PROCUREMENT DOCUMENT 00 22 13 - SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

The document "Supplementary Instructions to Bidders" is used when a standard form such as AIA Document A701 is used for the Instructions to Bidders. Modify the suggested language below to suit the instructions or supplementary instructions used for the project.

The following suggested language is based on AIA Document A701-1997.

1.X ARTICLE 4 – BIDDING PROCEDURES

Use language added to Bidding Procedures article to require evidence of Green Advantage Certified Practitioners, and, for GA3030, Green Advantage Certified Associates, from every Bidder during the bid process. To require only the winning bidder to provide personnel qualifications, skip this article and add language to Submittals article instead.

A. Bidder Key Personnel List Bid Supplement:

1. Add Section 4.X: Provide list of key managerial and supervisory personnel.

Paragraphs requiring bidders to list key project personnel may vary; examples are given above. Add instructions below if documentation of Green Advantage Certified Practitioners and Green Advantage Certified Associates is required as a supplement to the bid.

- a. Include names of Green Advantage Certified Practitioners **[and Green Advantage Certified Associates]** among key personnel of Bidder. See Section 01 40 00 "Quality Requirements".

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- b. For each Green Advantage Certified Practitioner [**and each Green Advantage Certified Associate**] attach copy of Green Advantage Certificate.

B. Subcontractors, Suppliers and Manufacturers List Bid Supplement:

- 1. Add Section 4.Y: Provide list of major subcontractors, suppliers, and manufacturers.

Paragraphs requiring bidders to list subcontractors may vary; examples are given above. Add instructions below if documentation of Green Advantage Certified Practitioners and, for GA3030, Green Advantage Certified Associates, is required as a supplement to the bid.

- a. Include names of Green Advantage Certified Practitioners among key personnel of listed subcontractors. See Section 01 40 00 "Quality Requirements."

For GA3030, retain first subparagraph below.

- b. Include names of Green Advantage Certified Practitioners and Green Advantage Certified Associates among non-supervisory personnel. See Section 01 40 00 "Quality Requirements."

For GA3030, retain option below.

- c. For each Green Advantage Certified Practitioner [**and each Green Advantage Certified Associate**], attach copy of Green Advantage Certificate.

1.Y ARTICLE 6 – SUBMITTALS

Use language added to Submittals article to require evidence of Green Advantage Certified Practitioners from only the winning Bidder. To require every bidder to provide personnel qualifications, skip this article and add language to Bidding Procedures article instead.

A. 6.3 Submittals:

- 1. Add Section 6.3.1.4: names of persons proposed for the principal portions of the Work, including subcontractor personnel, who are Green Advantage Certified Practitioners. For each Green Advantage Certified Practitioner, attach copy of Green Advantage Certificate.
 - a. If key personnel are not currently Green Advantage Certified Practitioners, provide signed commitment from Contractor to fulfill certification requirement prior to the Notice to Proceed and throughout the construction phase of the project.

For GA3030, retain first subparagraph below.

- 1. Add Section 6.3.1.5: names of persons proposed for non-supervisory roles in the Work, including subcontractor personnel, who are Green Advantage Certified Practitioners or Green Advantage Certified Associates. For each named person, attach copy of Green Advantage Certificate.
 - a. If non-supervisory personnel are not currently Green Advantage Certified Practitioners or Green Advantage Certified Associates, provide signed commitment from Contractor to fulfill certification requirement prior to the Notice to Proceed and throughout the construction phase of the project.

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PROCUREMENT DOCUMENT 00 41 00 - BID FORM

Suggested requirements may be used with a bid form for any contract type and may be modified for use in Requests for Proposal.

1.X BID SUPPLEMENTS

A. The following supplements are a part of this Bid Form and are attached hereto.

Paragraphs requiring bidders to list key personnel of contractor and subcontractors may vary; examples are given above. Add instructions below if documentation of Green Advantage Certified Practitioners is required as a supplement to the bid.

5. Bid Form Supplement – Contractor Personnel List.
6. Bid Form Supplement – Subcontractors, Suppliers and Manufacturers List.

Retain option for GA3030.

7. Bid Form Supplement – Copies of certificates for Green Advantage Certified Practitioners [**and Green Advantage Certified Associates**].

PROCUREMENT DOCUMENT 00 49 93 - BID SUBMITTAL CHECKLIST

1.X BIDDER'S CHECKLIST

A. The following checklist is provided for the Bidder's convenience.

Paragraphs describing a bid checklist may vary; example is given above. Add checklist items below if documentation of Green Advantage Certified Practitioners is required as a supplement to the bid.

- Bid Form Supplement – Contractor Personnel List.
- Bid Form Supplement – Subcontractors, Suppliers and Manufacturers List.

Retain option for GA3030.

- Bid Form Supplement – Copies of certificates for Green Advantage Certified Practitioners [**and Green Advantage Certified Associates**].

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SUGGESTED LANGUAGE FOR SPECIFICATIONS – DIVISION 01

SECTION 01 10 00 - SUMMARY

SECTION 01 12 00 – MULTIPLE CONTRACT SUMMARY

SECTION 01 40 00 – QUALITY REQUIREMENTS

SECTION 01 81 13 – SUSTAINABLE DESIGN REQUIREMENTS – LEED (NC, CI, CS, FOR SCHOOLS, or OTHER RATING SYSTEM)

SECTION 01 10 00 - SUMMARY

Use Summary to draw Contractor's attention to Green Advantage requirements specified elsewhere.

1.X MISCELLANEOUS PROVISIONS

- A. GA30 Standard: The Work of this Project shall be performed in compliance with the GA30 Standard. See Section 01 40 00 "Quality Requirements" for personnel qualification requirements.

Retain above or below. Above requires only supervising personnel to be Green Advantage Certified Practitioners. Below additionally requires tradespeople to be Green Advantage Certified Practitioners or Green Advantage Certified Associates.

- A. Enhanced GA3030 Standard: The Work of this Project shall be performed in compliance with the enhanced GA3030 Standard. See Section 01 40 00 "Quality Requirements" for personnel qualification requirements.

SECTION 01 12 00 – MULTIPLE CONTRACT SUMMARY

If the project will be constructed under multiple prime contracts, indicate and allocate the Green Advantage requirements in Multiple Contract Summary.

1.X GENERAL REQUIREMENTS OF CONTRACTS

- A. GA30 Standard: The Work of this Project shall be performed in compliance with the GA30 Standard. See Section 01 40 00 "Quality Requirements" for personnel qualification requirements.

Retain above or below. Above requires only supervising personnel to be Green Advantage Certified Practitioners. Below additionally requires tradespeople to be Green Advantage Certified Practitioners or Green Advantage Certified Associates.

- A. Enhanced GA3030 Standard: The Work of this Project shall be performed in compliance with the enhanced GA3030 Standard. See Section 01 40 00 "Quality Requirements" for personnel qualification requirements.

SECTION 01 40 00 – QUALITY REQUIREMENTS

1.X INFORMATIONAL SUBMITTALS

Edit the Qualification Data paragraph to include the sustainable design qualification requirements for supervisory personnel.

- X. Qualification Data:

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1. Sustainable Design Qualification Data: Comply with LEED Credit ID 1.<subnumber>, submittal requirements in **[Section 01 81 13 "Sustainable Design Requirements"]<Other Section number and title>**.

If LEED ID credit is sought, retain paragraph above, and edit credit number and specification section number and title. If not pursuing LEED ID credit, but requiring GA30 or GA3030, retain paragraph and subparagraphs below. Edit options according to responsibilities of Contractor and Construction Manager.

1. Sustainable Design Qualification Data:

Select standard from two options below.

- a. Provide signed letter stating that Project will be constructed in compliance with **[GA30][GA3030]**.
- b. List **[Contractor] [Construction Manager]** personnel and calculate percentage of Green Advantage Certified Practitioners.

Retain option in two subparagraphs below for GA3030.

- c. List subcontractor personnel and calculate percentage of Green Advantage Certified Practitioners **[and Green Advantage Certified Associates]**.
- d. Provide copies of certificates for **[Contractor] [Construction Manager]** and subcontractor personnel who are Green Advantage Certified Practitioners **[and Green Advantage Certified Associates]**.

1.Y CLOSEOUT SUBMITTALS

- Y. Qualification Data:

Closeout submittal is recommended for verification of project staffing. Edit options according to responsibilities of Contractor and Construction Manager.

1. Sustainable Design Qualification Data at Substantial Completion:

Select standard from two options below.

- a. Provide signed letter stating that project has been constructed in compliance with **[GA30] [GA3030]**.
- b. List **[Contractor] [Construction Manager]** personnel, including personnel changes since the Notice to Proceed, and calculate percentage of Green Advantage Certified Practitioners **[and Green Advantage Certified Associates]** as of the date of Substantial Completion.

Retain option in two subparagraphs below for GA3030.

- c. List subcontractor personnel, including personnel changes since the Notice to Proceed, and calculate percentage of Green Advantage Certified Practitioners **[and Green Advantage Certified Associates]** as of the date of Substantial Completion.

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- d. Provide copies of certificates for **[Contractor] [Construction Manager]** and subcontractor personnel who are Green Advantage Certified Practitioners **[and Green Advantage Certified Associates]**.

1.2 QUALITY ASSURANCE

Edit options in the subparagraph below to reflect certification required for project. First option applies to GA3030. Second and third options are examples of thresholds for day-to-day involvement of personnel: choose a requirement suited to size of project and scope of trades. Contact Green Advantage for assistance in selecting appropriate minimum involvement.

- X. Sustainable Design Qualifications: Contractor and Subcontractor personnel shall include Green Advantage Certified Practitioners. **[Non-supervisory personnel may be Green Advantage Certified Associates or Green Advantage Certified Practitioners.]** Each certified person's Green Advantage certificate shall be in effect for the duration of the Project. Only personnel actively involved in the Work are subject to this requirement.

Edit options in subparagraph below according to responsibilities of Contractor and Construction Manager.

1. **[Contractor][Construction Manager]:** 30 percent or more of key supervisory **[Contractor] [and] [Construction Manager]** personnel shall be Green Advantage Certified Practitioners prior to and throughout the construction phase of the project. Personnel in the following roles shall be included in the calculation of key personnel:
 - a. Contractor.
 - b. Construction Manager (Constructor), including Project Executive.
 - c. Construction Manager (Advisor): Include Construction Manager (Advisor) representatives in calculating Contractor personnel.

Although Construction Manager (Advisor) is not generally a member of contractor's staff, LEED ID credit and GA30 include construction manager representatives in contractor group. Retain and edit subparagraph below if pursuing LEED ID credit.

- 1) See Section **[01 81 13] <Other section number> ["Sustainable Design Requirements"] <Other section title>** for LEED documentation requirements.
 - d. Project Manager.
 - e. Project Engineer.
 - f. Quality Control Manager.
 - g. Mechanical/ Electrical/Plumbing (MEP) Coordinator.
 - h. Superintendent.
 - i. Assistant Superintendent.
 - j. General Foreman.
2. Subcontractors: 30 percent or more of the aggregate of subcontractors' key supervisory personnel shall be Green Advantage Certified Practitioners prior to and throughout the construction phase of the project. Personnel in the following roles shall be included in the calculation of key personnel:
 - a. Project Manager.
 - b. Superintendent.
 - c. Project Engineer.

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- d. Quality Control Manager.
- e. General Foreman.
- f. Trade Foreman.

For GA3030, retain the following paragraph.

- 3. Non-Supervisory Personnel: 30 percent or more of the aggregate of non-supervisory personnel and 30 percent or more of each trade's non-supervisory personnel shall be Green Advantage Certified Practitioners or Green Advantage Certified Associates prior to and throughout the construction phase of the project.

For publicly-funded projects and other projects prohibiting proprietary specifications, retain the following paragraph.

- 4. Equivalency Requirements: Non-proprietary Specification for Workforce Certification for construction supervisory personnel. Supervisory personnel certification shall meet or exceed all of the following criteria:

A green builder certification that is:

- ANSI/ISO/IEC 17024 accredited
- designed specifically for construction supervisory personnel
- applicable across trades
- focused on means, methods, materials and best practices that apply to the major components of green construction including: sites; water; energy; IEQ; and the process of construction (e.g. sequencing, materials storage, efficiency, and management green building risks), and emphasizes:
 - cost controls and reduction of callbacks
 - crew collaboration
 - health and safety issues particular to green building
- applicable to (and neutral to and independent from) prominent green building rating systems, codes, and standards.

SECTION 01 81 13 – SUSTAINABLE DESIGN REQUIREMENTS – LEED [NC][CI][CS][FOR SCHOOLS]<OTHER RATING SYSTEM>

If seeking the LEED Innovation in Design Credit for Green Advantage Certified Practitioners, insert requirements for compliance with the credit into the section in which LEED documentation is specified.

Requirements below are coordinated with USGBC-approved requirements as of April 2011; verify current credit requirements with USGBC.

1.X ACTION SUBMITTALS

Y. LEED Documentation Submittals:

- 1. Credit ID 1. <insert sub-number>, Green Advantage Certified Practitioners: See Section 01 40 00 "Quality Assurance" for personnel requirements.

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- a. **[Contractor]****[Construction Manager]**Personnel: Provide a complete list of **[Contractor]** **[and]** **[Construction Manager]** personnel on the project, noting each person's role in the project and who is a Green Advantage Certified Practitioner.
 - 1) Calculate the percentage of Green Advantage Certified Practitioners.
 - 2) **[For multiple-prime contracts, provide separate lists for the Construction Manager and each Prime Contractor.]**
- b. Subcontractor Personnel: Provide a complete list of subcontractor personnel on the project, noting each person's role in the project and who is a Green Advantage Certified Practitioner. Aggregate all subcontractors' supervisory personnel into a single list.
 - 1) Calculate the percentage of GA Certified personnel.
 - 2) **[For multiple-prime contracts, provide separate list for each Prime Contractor.]**
- c. Provide copies of certificates for Contractor and subcontractor personnel who are Green Advantage Certified Practitioners.

If requiring GA3030, which goes beyond the requirements of the LEED ID Credit, consider retaining the following.

Note: See Section 01 40 00 "Quality Requirements" for additional Green Advantage qualification submittals not required for LEED documentation.

For questions about using the Green Advantage trademarks, consult the Green Advantage website, www.greenadvantage.org.

The language suggested in this document is in general compliance with the Green Advantage understanding of LEED requirements. However, interpretations of LEED Credits are determined solely by USGBC, not Green Advantage. No warranty is issued.

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II. **Non-proprietary Specification for Workforce Certification (packaged as single division)**

This specification is for a construction workforce with a significant percentage who hold an ANSI accredited certification. Instead of naming Green Advantage specifically, it is written around the personnel certification requirements of ANSI/ISO/IEC 17024. Therefore, it is particularly useful to governments or other organizations that prefer to avoid sole source designations. The specification qualifies for a LEED Innovation Credit.

This specification has been packaged under one division number so that it can be added on a project-by-project basis with relative ease. It was authored by Axiom Sustainable Consulting. Axiom permits its use on projects, subject to the terms listed in Section 1.3.

The language suggested in this document is in general compliance with the Green Advantage understanding of LEED requirements. However, interpretations of LEED Credits are determined solely by USGBC, not Green Advantage. No warranty is issued.

SECTION 01 45 25

ANSI/ISO/IEC 17024 PERSONNEL CERTIFICATIONS

PART 1 GENERAL

1.1 SUMMARY

- A. The project has established a goal of enhancing the capability of construction supervisory personnel to achieve project goals by requiring green construction personnel certification.
- B. Additionally, other benefits can be achieved depending on the green building rating system or standards being utilized. Under the LEED Rating System, one point in the Innovation in Design category can be earned through the recognition of Third Party ANSI/ISO/IEC 17024 Personnel Certifications.

1.2 COPYRIGHT

- A. This work is protected by Copyright and/or other applicable law. Any use of the work other than as authorized under this license or copyright law is prohibited.
- B. By exercising any rights to the work provided here, you accept and agree to be bound by the terms of this license.

1.3 LICENSE

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- B. This license allows others to share (copy, distribute and transmit the work), remix (adapt the work) and to make commercial use of the work under the following conditions:
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- C. With the understanding that:
 - 1. Waiver – Any of the above conditions can be waived if you get permission from the copyright holder.

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 3. Other Rights – In no way are any of the following rights affected by the license:
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 - b. The author's moral rights;
 - c. Rights other persons may have either in the work itself or in how the work is used, such as publicity or privacy rights.
 - d. Notice – For any reuse or distribution, you must make clear to others the license terms of this work. The best way to do this is with a link to this web page.
- D. The full legal code of this license may be viewed at <http://creativecommons.org/licenses/by/3.0/> or requested by sending a letter to Creative Commons, 444 Castro Street, Suite 900, Mountain View, California, 94041, USA.
- 1.4 AUTHOR(S)
- A. The original author of this document is as follows:
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- B. Modifications by (if applicable):
- Updated 12/31/14 by Michael Kawecki
- 1.5 DEFINITIONS
- A. ASHRAE 189.1 – American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) national standard for the design of high performance green buildings <http://www.ashrae.org/resources--publications/bookstore/standard-189-1>
- B. GBCI – The Green Building Certification Institute (GBCI) is a third-party organization that provides independent oversight of professional credentialing and project certification programs related to green building. <http://www.gbci.org>
- C. Green Advantage – A personnel certifying body that specialized in certifications for building-related practitioners, primarily contractors, subcontractors and trades people. The Green Advantage Certified Practitioner (GACP) Certification is ANSI/ISO/IEC accredited under 17024. Individuals earning the GACP designation demonstrate their competency – knowledge, skills, and abilities – in green construction. Because the green building field is rapidly changing, candidates must pass a Recertification Exam at the end of the certification period in order to remain Green Advantage Certified. <http://www.greenadvantage.org>
- D. Green Advantage Certified – An individual who has successfully passed the Green Advantage Exam and maintains an active certification (expiration date found on certificate) throughout the course of the project.
- E. Green Globes – Green Globes is an environmental assessment and certification programs for commercial buildings operated by the Green Building Initiative. <http://www.greenglobes.com>
- F. ICC – International Code Council is a member-focused association dedicated to developing model codes and standards used in the design, build and compliance process to construct safe, sustainable, affordable and resilient structures. <http://www.iccsafe.org>

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- G. ICC 700 National Green Building Standard – National Association of Home Builders (NAHB)/ICC collaboration national standard for residential green building rating system.
<http://www.nahb.org/page.aspx/generic/sectionID=2510>
- H. IgCC – The IgCC (International Green Construction Code) is the first model code to include sustainability measures for the entire construction project and its site, from design through construction, certificate of occupancy and beyond. The code is designed to make buildings more efficient, reduce waste, and have a positive impact on health, safety and community welfare. <http://www.iccsafe.org/cs/IGCC/Pages/default.aspx>
- I. LEED – Leadership in Energy and Environmental Design (LEED) is a comprehensive and flexible green building tool that addresses the entire building lifecycle recognizing best-in-class building strategies. Published by the USGBC, LEED is a program that provides third-party verification of green buildings where building projects satisfy prerequisites and earn points to achieve different levels of certification. Prerequisites and credits differ for each rating system, and teams choose the best fit for the project. <http://www.usgbc.org/leed>
- J. Living Building Challenge - The International Living Future administers the Living Building Challenge, a built environment performance standard. <http://livingfuture.org/ilfi/about-international-living-future-institute>
- K. USGBC – The U.S. Green Building Council (USGBC) is a 501(c)(3) nonprofit organization committed to a prosperous and sustainable future for our nation through cost-efficient and energy-saving green buildings. <http://www.usgbc.org>

1.6 THIRD PARTY PERSONNEL CERTIFICATIONS

- A. Green construction personnel certifications must be:

A green builder certification that is:

- ANSI/ISO/IEC 17024 accredited
- designed specifically for construction supervisory personnel
- applicable across trades
- focused on means, methods, materials and best practices that apply to the major components of green construction including: sites; water; energy; IEQ; and the process of construction (e.g. sequencing, materials storage, efficiency, and management green building risks), and emphasizes:
 - cost controls and reduction of callbacks
 - crew collaboration
 - disaster resistance/accommodation/resilience
 - health and safety issues particular to green building
- applicable to (and neutral to and independent from) prominent green building rating systems, codes, and standards.

- B. Green Advantage Certified Practitioner (GACP) meets the above requirements.

1.7 REFERENCE STANDARDS

- A. Recognition of Third Party Personnel Credentials and Certifications in LEED v1.0, dated January 2011
<http://www.usgbc.org/ShowFile.aspx?DocumentID=8796>
- B. LEED Interpretation #5413, dated 2/28/11
<https://www.usgbc.org/leedinterpretations/LISearch.aspx?liaccessid=5413>

1.8 SUBMITTALS

- A. Submittals prior to Contract Award
 1. Form A – Summary of Green Advantage Personnel
 2. Form B – Subcontractor Green Advantage Personnel (Proposed)

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3. Form C – Subcontractor Letter of Intent
- B. Submittals prior to Commencement of Work
 1. Form B – Subcontractor Green Advantage Personnel (Finalized)
 2. Copies of Green Advantage Certification (for applicable personnel) or completed Form D – Letter of Authorization

1.9 SUBSTITUTIONS

- A. Other ANSI/ISO/IEC accredited personnel certifications under 17024 as described in Section 1.6.
- B. Personnel Certifications that have been pre-approved by ASHRAE 189.1, Green Globes, ICC700, IgCC, Living Building Challenge, USGBC/GBCI or a comprehensive green building certification approved by the American National Standards Institute (ANSI) as an accredited national standard and meet the 1.9.A requirement will be considered for substitutions for this project.
- C. The process by which an organization applies for recognition may vary. For example, recognition initiated as a LEED Interpretation, is subject to GBCI staff and committee review. For information on initiating a LEED Interpretation, please visit <http://www.usgbc.org/LEEDInterpretations>

1.10 PROJECT MEETINGS

- A. General Preconstruction Conference: Schedule a preconstruction conference before starting construction, at a time convenient to Owner, Architect and Construction Manager if applicable, but no later than 30 days after execution of the Agreement. Hold the conference at Project site or another convenient location. Conduct the meeting to review responsibilities and personnel assignments.
- B. Subcontractor Preconstruction Meeting: Schedule a preconstruction conference a minimum of 5 business days prior to the start of each subcontract. Conduct the meeting to review responsibilities and personnel assignments and discuss the subcontractor's role in the Construction Waste Management Plan and Indoor Air Quality Plan (as applicable)

PART 2 PRODUCTS

2.1 ACCEPTABLE THIRD PARTY PERSONNEL CREDENTIALS AND CERTIFICATIONS

- A. Green Advantage Certified Practitioner (GACP)
- B. Substitutions: Under provisions of Division 1.

2.2 GREEN ADVANTAGE CERTIFICATION EXAM

- A. The Green Advantage exam can be administered in multiple methods:
 1. Computerized individual exams are given at authorized testing facilities where the exams are proctored in a secure setting. As an exam candidate, you schedule your own testing time and date and take the test individually at a testing center most convenient to you.
 2. Group paper-pencil exams are given in groups, often following a workshop. Group exams are administered at GA approved sites by GA proctors at a time and place set by the host or training organization.
- B. While Green Advantage recommends training in preparation for its certification exams, it does not authorize, endorse, or hold responsibility for training events or materials. Participating in a training workshop is not a pre-requirement to take a Green Advantage Certification Exam.

2.3 APPLICABLE LEED RATING SYSTEMS

- A. LEED NC v2.2
- B. LEED NC v2009
- C. LEED for Schools v2009
- D. LEED CI v2009
- E. LEED CS v2009
- F. LEED Retail NC v2009
- G. LEED Retail CI v2009
- H. LEED for Healthcare v2009
- I. LEED NC v4

PART 3 EXECUTION

3.1 INSTALLATION

- A. Prior to and throughout the construction phase of the project, 30% of the General Contractor's or Construction Manager's supervisory personnel will be Green Advantage Certified. Personnel that are included must be actively involved in the day-to-day activities and of the following classifications as applicable:
 - 1. Contractor
 - 2. Construction Manager including Project Executive
 - 3. Project Manager
 - 4. Project Engineer
 - 5. Quality Control Manager
 - 6. Mechanical/ Electrical/Plumbing (MEP) Coordinator
 - 7. Superintendent
 - 8. Assistant Superintendent
 - 9. General Foreman
- B. Prior to and throughout the construction phase of the project, 30% of Subcontractor supervisory personnel (in aggregate) will be Green Advantage Certified. Personnel that are included must be actively involved in the day-to-day activities and of the following classifications:
 - 1. Project Manager
 - 2. Superintendent
 - 3. Project Engineer
 - 4. Quality Control Manager
 - 5. General Foreman
 - 6. Trade Foreman
- C. In order to be considered Green Advantage Certified for this project, an individual must remain 'in good standing' throughout the project. If an individual's Green Advantage Certification expires during the time that they are involved in day-to-day activities on the project, they are required to recertify or will be considered ineligible.

END OF SECTION