
USACE / NAVFAC / AFCEC /NASA UFGS-01 33 29.00 20 (August 2013)

Preparing Activity: NAVFAC NEW

UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMLR dated October 2013

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SUSTAINABLE REQUIREMENTS 08/13

NOTE: This guide specification covers the requirements for providing sustainable documentation for Guiding Principles Validation (GPV), and Third Party Certification (TPC). Use this section for NAVFAC facility projects. This section will be superseded by a unified version.

Adhere to [UFC 1-300-02](#) Unified Facilities Guide Specifications (UFGS) Format Standard when editing this guide specification or preparing new project specification sections. Edit this guide specification for project specific requirements by adding, deleting, or revising text. For bracketed items, choose applicable items(s) or insert appropriate information.

Remove information and requirements not required in respective project, whether or not brackets are present.

Comments, suggestions and recommended changes for this guide specification are welcome and should be submitted as a [Criteria Change Request \(CCR\)](#).

UFGS are intended for design-bid-build contracts; for design-build projects UFGS may require extensive editing by the designer. Navy design-build projects must use NAVFAC Design-Build Master at www.wbdg.org/ndbm.

PART 1 GENERAL

1.1 REFERENCES

NOTE: Issue (date) of references included in project specifications need not be more current than provided by the latest guide specification. Use of SpecsIntact automated reference checking is recommended for projects based on older guide

specifications.

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. DEPARTMENT OF ENERGY (DOE)

ISWG Guiding Principles (2008) High Performance and Sustainable Buildings Guidance

U.S. GREEN BUILDING COUNCIL (USGBC)

LEED GBDC (2009) LEED Reference Guide for Green Building Design and Construction

LEED NC (2009) Leadership in Energy and Environmental Design(tm) New Construction Rating System

1.2 SUBMITTALS

NOTE: Review Submittal Description (SD) definitions in Section 01 33 00 SUBMITTAL PROCEDURES and edit the following list to reflect only the submittals required for the project.

The Guide Specification technical editors have designated those items that require Government approval, due to their complexity or criticality, with a "G". Generally, other submittal items can be reviewed by the Contractor's Quality Control System. Only add a "G" to an item, if the submittal is sufficiently important or complex in context of the project.

For submittals requiring Government approval on Army projects, a code of up to three characters within the submittal tags may be used following the "G" designation to indicate the approving authority. Codes for Army projects using the Resident Management System (RMS) are: "AE" for Architect-Engineer; "DO" for District Office (Engineering Division or other organization in the District Office); "AO" for Area Office; "RO" for Resident Office; and "PO" for Project Office. Codes following the "G" typically are not used for Navy projects.

Submittal items not designated with a "G" are considered as being for information only for Army projects and for Contractor Quality Control approval for Navy projects.

NOTE: Identify all requirements throughout the

technical sections with the marking "Guiding Principles[and TPC (LEED)]." This will generally be within the submittal requirements of the technical section; however, the products part or the execution part may also require some notation to differentiate those pieces of equipment/products/activities out of many listed that relate to Guiding Principles and LEED. Where additional data is required to validate a Guiding Principle or LEED point (i.e., VOC content of paint), an additional submittal requirement will need to be included in the technical section.

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are [for Contractor Quality Control approval.] [for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government.] The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Preliminary Sustainability Notebook Submittal[; G]

Preliminary High Performance and Sustainable Building Checklist

SD-07 Certificates

Third Party Certification (TPC)

SD-11 Closeout Submittals

Final Sustainability Notebook Submittal[; G]

Final High Performance and Sustainable Building (HPSB/NSEDRC) Checklist[; G]

NOTE: Choose bracketed option, "Amended Final Sustainability Notebook Submittal" for projects that require data and performance information to be collected after the BOD of the facility.

Choose bracketed option for "Third Party Certification Plaque and Certificates" for TPC projects.

[Amended Final Sustainability Notebook Submittal[; G]

] [Third Party Certification Plaque and Certificates[; G]

] 1.3 GUIDING PRINCIPLES VALIDATION (GPV)

NOTE: GUIDING PRINCIPLES VALIDATION (GPV) applies to all building projects (vertical construction).

1. Only GUIDING PRINCIPLES VALIDATION is required for the following types of projects:

a. Non-energy designated new construction or renovation projects that require a very limited number of construction trades. Examples include: interior painting, replacing floor material, repairing roofs, or resurfacing parking lot.

b. Renovation projects less than \$2.5 Million, regardless of Plant Replacement Value (PRV).

2. Use paragraphs for ADDITIONAL GUIDING PRINCIPLES VALIDATION for projects that exceed these requirements.

Provide construction related sustainable documentation to verify achievement of ISWG Guiding Principles Validation (GPV) and completion of High Performance Sustainable Building (HPSB) Checklist. (This is the same checklist called NAVFAC Sustainable Energy Data Record Card (NSEDRC) items in Attachment 1).

Provide the following for GPV:

- a. A completed HPSB/NSEDRC Checklist, using the HPSB/NSEDRC Checklist at Attachment 1. Further definitions and requirements are provided in paragraph HPSB/NSEDRC CHECKLIST.
- b. Government approval of any changes to the HPSB/NSEDRC Checklist from the Contracting Officer at the Preconstruction Conference. Contracting Officer's approval establishes identified ISWG Guiding Principles Requirements as the project's sustainability goals.

No variations or substitutions to the sustainability requirements are allowed without written consent from the Contracting Officer. Immediately bring to the attention of the Contracting Officer any changes that impact meeting the approved ISWG Guiding Principles Requirements for this project and demonstrate that change will not incur additional construction cost or increase the life cycle cost.

- c. Completion of all work required to incorporate the applicable ISWG Guiding Principles Requirements indicated on the HPSB/NSEDRC Checklist and in this contract.
- d. Provision of construction related documentation [to the Contracting Officer who will provide to the Designer of Record (DOR)] to maintain an up-to-date Sustainability Notebook. Supplement construction related documentation containing the following components;
 - (1) HPSB/NSEDRC Checklist
 - (2) Sustainability Action Plan

NOTE: Use the following bracketed items for projects that require ADDITIONAL GUIDING PRINCIPLES VALIDATION.

[(3) Documentation illustrating Guiding Principle Requirements compliance

] [(4) Commissioning Plan and Reports

] 1.3.1 Sustainability Action Plan

Include the following information in the Sustainability Action Plan:

- a. Contractor confirmation to achieve each construction relate GP requirement.

NOTE: Use the following bracketed paragraphs when
ADDITIONAL GUIDING PRINCIPLES DOCUMENTATION is
required.

- b. For each designated construction related ISWG Guiding Principles Requirements that is not achieved, provide narrative explaining how mission, activity, or lack of funded scope for mandatory requirements precludes achieving specific sustainability requirement or goal. Provide analysis of particular requirement and level to which project is able to comply.

- c. Name and contact information for: Contractor's Sustainable POC and other sustainability professional on the Contractor's Staff responsible for ensuring sustainability goals are accomplished and documentation is assembled.

] 1.3.2 Responsibilities

Contractor is responsible for all costs associated with constructing and demonstrating that project complies with approved ISWG Guiding Principles Requirements.

] 1.3.3 Calculations

NOTE: Use this paragraph when ADDITIONAL GUIDING
PRINCIPLES DOCUMENTATION is required.

Provide calculations, product data, and certifications required in this section to demonstrate compliance with the ISWG Guiding Principles Requirements.

] 1.3.4 Third Party Certification (TPC) Documentation

NOTE: Use this paragraph when Third Party
Certification is required by UFC 1-200-01, "General
Building Requirements" and the Designer of Record
registers and certifies the project, with the
Contractor providing the construction
documentation. This is in addition to the GPV.

NOTE: On rare occasion that project facility scope is not capable of meeting LEED silver requirement, enter "Certified" in the empty set of brackets, and provide Government with documentation to justify deviation from Silver.

This project has been designed for, and must be constructed to attain a sustainable rating of [Silver] [_____] in accordance with [LEED GBDC] [_____]. Project is already registered with the following TPC Organization: [USGBC - LEED] [_____]. Provide construction related sustainable documentation, in the format required by the TPC Organization, to the Contracting Officer for approval, and for final approval by the TPC organization.

The project has received a [USGBC - LEED] [_____] Design Review.

Include the following:

- a. Provide the Final TPC Checklist that completes the requirements of the TPC Checklist attached to this specification as Attachment 2.
- b. Approval of the Final TPC Checklist from the Contracting Officer at the Pre-Construction Conference.

No variations or substitutions to the sustainability requirements are allowed without written consent from the Contracting Officer. Immediately bring to the attention of the Contracting Officer any project changes that impact meeting the approved TPC Requirements for this project. Demonstrate that change will not: incur additional construction cost; increase the life cycle cost; impact previously approved design review credits; or impact required TPC certification level.

- c. Complete all work required to incorporate the applicable TPC Requirements.
- d. Maintain the construction related information, and provide replacement pages, in the Sustainability Notebook pertaining to additions and changes to the approved sustainable requirements. The Sustainability Notebook is in electronic format and is explained in paragraph SUSTAINABLE NOTEBOOK. The Sustainable Notebook contains the following components in addition to the GPV components above:

(1) TPC Checklist

(2) Sustainability Action Plan

NOTE: Choose the first or second bracketed item.
For second bracketed item, Contractor has to be entered as a TPC Online Team Member.

- (3) Completed TPC documentation for each identified prerequisite and credit. [Forward to the Contracting Officer for approval.] [Upload onto the TPC Online documentation website.]

- (4) Copy of all correspondence with the TPC organization.
- (5) Commissioning Plan
- e. Include the following information in the Sustainable Action Plan. Provide this TPC information in addition to the GPV Action Plan items above:
 - (1) Contractor confirmation to achieve each TPC requirement.
 - (2) For each required TPC credit that is attempted but not achieved, provide narrative explaining how mission, activity, or lack of funded scope for TPC pre-requisites or mandatory credits precludes achieving specific sustainability requirement or goal. Provide analysis of particular requirement and level to which project is able to comply.
 - (3) Provide the commissioning plan and schedule for performance testing[, and data collection to take place during first year of facility usage].
 - (4) Name and contact information for: Contractor's Sustainable POC and other names of sustainability professionals on the Contractor's Staff responsible for ensuring TPC sustainability goals are accomplished and documentation is assembled.
- f. Contractor is responsible for all costs associated with constructing and demonstrating that project complies with approved TPC requirements, including but not limited to:
 - (1) TPC coordination with AE/IH Team, TPC website requirements, and management for construction related documentation.
 - (2) Construction work required to incorporate TPC prerequisites and credits.
 - (3) Submittals required to demonstrating compliance with Government approved TPC checklists.
- g. Provide all calculations, product data, and certifications required in this contract to demonstrate compliance with the TPC Requirements of this section.

] [1.3.5 Third Party Certification (TPC)

 NOTE: Choose this paragraph, and delete the previous, if the Contractor is responsible for achieving the final TPC certification.

 NOTE: Choose the first bracketed paragraph and delete the second, if the Designer of Record (DOR) has not registered the project with a TPC organization, and the Contractor must do so. Otherwise, choose the second bracketed paragraph, and delete the first, if the DOR has registered the project with a TPC organization, and hands off the

responsibility for final TPC documentation and certification to the Contractor.

NOTE: On rare occasion that project facility scope is not capable of meeting LEED silver requirement, enter "Certified" in the empty set of brackets, and provide Government with documentation to justify deviation from Silver.

[Contractor is responsible for achieving Third Party Certification (TPC) equivalent to USGBC LEED [Silver] [_____] Certification. The certification must come from USGBC or Government approved equivalent TPC organization. An alternative TPC organization must demonstrate equivalency and provide explanation for Government consideration, prior to use on the project. Third Party Certification is met when Government receives TPC organization certificate and plaque.]

[Project is already registered with [USGBC - LEED] [_____]. The TPC Online management will be turned over to the Contractor, and he must assume full responsibility for management and obtaining Final Certification. The project has received a [USGBC - LEED] [_____] Design Review.]

The TPC Certification requires the following:

- a. Provide the Final TPC Checklist that completes the requirements of the TPC Checklist attached to this specification as Attachment 2.
- b. Obtain approval of the Final TPC Checklist from the Contracting Officer at the Pre-Construction Conference.

No variations or substitutions to the sustainability requirements are allowed without written consent from the Contracting Officer. Immediately bring to the attention of the Contracting Officer any project changes that impact meeting the approved TPC Requirements for this project. Demonstrate that change will not: incur additional construction cost; increase the life cycle cost; impact previously approved design review credits; or impact required TPC certification level.

- c. Complete all work required to incorporate the applicable TPC Requirements.
- d. Maintain the construction related information, and provide replacement pages, in the Sustainability Notebook pertaining to additions and changes to the approved sustainable requirements. The Sustainability Notebook is in electronic format and is explained in paragraph SUSTAINABLE NOTEBOOK. The Sustainable Notebook contains the following components in addition to the GPV components above:
 - (1) TPC Checklist
 - (2) Completed TPC Online forms for each identified prerequisite and credit
 - (3) Copy of all correspondence with the TPC organization

- (4) Documentation illustrating compliance with TPC requirements
 - (5) TPC Award Certificate
 - (6) Commissioning Plan
- e. Include the following information in the Sustainable Action Plan. Provide this TPC information in addition to the GPV Action Plan items above:
- (1) Contractor confirmation to achieve each TPC requirement.
 - (2) For each required TPC credit that is attempted but not achieved, provide narrative explaining how mission, activity, or lack of funded scope for TPC pre-requisites or mandatory credits precludes achieving specific sustainability requirement or goal. Provide analysis of particular requirement and level to which project is able to comply.
 - (3) Name and contact information for: Contractor's Sustainable POC and other names of sustainability professionals on the Contractor's Staff responsible for ensuring TPC sustainability goals are accomplished and documentation is assembled
 - (4) Provide the plan and schedule for performance testing, data collection, and commissioning[to take place during first year of facility usage].
- f. Contractor is responsible for all costs associated with constructing and demonstrating that project complies with approved TPC requirements, including but not limited to:
- (1) Final TPC review, certification and plaque fees
 - (2) Online (or offline with secure facilities) TPC management and documentation.
 - (3) Obtaining TPC certification based on Government-approved sustainability goals.
 - (4) Construction work required to incorporate TPC prerequisites and credits.
 - (5) Submittals required to demonstrate compliance with Government approved TPC checklists.
- g. Provide all calculations, product data, and certifications required in this specification to demonstrate compliance with the TPC Requirements.
- h. Provide all online (or offline, with secure facilities) TPC management and documentation.
- i. Provide all online (or offline, with secure facilities) TPC management and documentation.
- j. Provide TPC Plaque and Certificates. Use format below to create the Plaque, Certificate and Letter of Congratulations. Forward to parties designated by Contracting Officer:

(1) Plaque:

Name: Final Building Name. If unknown, provide Form DD1391 Project Name.

(2) Certificate:

Project Title, first line: P-(X); Form DD1391 Project Name).

Project Title, second line: Building #; Final Building Name (if different from Project Name.)

(3) Letter Congratulations:

Address letter to Facility's Installation commander Name. Address the letter to an individual person.

]1.4 SUSTAINABILITY SUBMITTALS REQUIREMENTS

Provide documentation in the Sustainability Notebook and the HPSB/NSEDRC Checklist to indicate compliance with the sustainability requirements of the project.

1.4.1 SUSTAINABILITY NOTEBOOK

Provide and maintain a comprehensive Sustainability Notebook to document compliance with the sustainability requirements identified in the approved HPSB/NSEDRC[and TPC] Checklist[s]. Sustainability Notebook must contain all required data to support full compliance with the [ISWG Guiding Principles Requirements](#) [and TPC requirements]. Sustainability Notebook is in the form of an Adobe PDF file; bookmarked at each [ISWG Guiding Principles Requirement](#) [, TPC requirement,] and sub-bookmarked at each document. Match format to [ISWG Guiding Principles](#) numbering system indicated herein. Maintain up to date information, spreadsheets, templates, etc. with each current submittals. [For TPC projects, provide a second Table of contents using TPC numbering system. Locate documentation unique to TPC here. Where TPC documentation would repeat GP documentation, insert note referring reviewer to GP documentation.]

Contracting Officer may deduct from the monthly progress payment accordingly if Sustainability Notebook information is not current, until information is updated and on track per project goals.

1.4.1.1 Sustainability Notebook Submittal Schedule

Provide Sustainability Notebook Submittals at the following milestones of the project:

a. [Preliminary Sustainability Notebook Submittal](#)

Submit preliminary Sustainability Notebook for approval at the Pre-construction conference.

b. Construction Progress Meetings. Update GP[and TPC] documentation in the Sustainability Notebook[and TPC Online tool] for each meeting.

c. [Final Sustainability Notebook Submittal](#)

Submit updated Sustainability Notebook within 60 days after the Beneficial Occupancy Date (BOD). Final progress payment retainage may

be held by Contracting Officer until Final Sustainable construction phase documentation is complete. [Submit three (3) electronic copies of the Final Sustainability Notebook on DVDs to the Government.]

NOTE: Choose the bracketed option for an Amended
Final Submittal, if the project requires Cx or data
collection after BOD.

[d. **Amended Final Sustainability Notebook Submittal**

Amend and resubmit the Final Sustainability Notebook to include commissioning, testing and balancing, and collection of performance requirements. [Submit three (3) final electronic copies of the Amended Final Sustainability Notebook Submittal on DVDs to the Government no longer than 30 days after the GP[, TPC][, and Cx] designated data collection period.]

] 1.4.2 HIGH PERFORMANCE SUSTAINABLE BUILDING (HPSB/NSEDRC) CHECKLIST

Provide construction documentation that provides proof of and supports compliance with the completed HBSP/NSEDRC Checklist.

1.4.2.1 HPSB/NSEDRC Checklist Submittal Schedule

Submit an updated copy of the HPSB/NSEDRC Checklist in the Sustainability Notebook.

- a. **Preliminary High Performance and Sustainable Building Checklist**
(HPSB/NSEDRC) at the Pre-construction meeting.
- b. **Final High Performance and Sustainable Building (HPSB/NSEDRC) Checklist**
not less than 60 days after BOD.

The Checklist form is found at the following link;
http://www.wbdg.org/pdfs/navfac_sustainable_energy_data_record_card.pdf

1.5 DOCUMENTATION REQUIREMENTS

NOTE: Choose the following bracketed paragraph for
Third Party Certification (TCP) projects.

[Where the following Guiding Principle Requirements are applicable to the Third Party Certification (TPC) project, and have a corresponding LEED requirement cited, the LEED credit is mandatory for TPC Certification. Documentation used to demonstrate TPC compliance may be used to demonstrate GP compliance.

]

NOTE: The following subparagraphs provide Guiding Principle Requirements. Edit out Guiding Principle Requirements that are not applicable to the project. If some Guiding Principle Requirements are eliminated, do not change the Roman numeral associated with the other principles. Add sustainability requirements based on project

requirements.

Guiding principles that are related to design must already be designed into the project. Contractor is only responsible for construction requirements.

Incorporate each of the following **ISWG Guiding Principles** Requirements into project construction; and provide documentation that proves compliance with each listed requirement. Items below are organized according to the **ISWG Guiding Principles**. Note that the **ISWG Guiding Principles** use Roman numerals to denote categories of requirements. The below list adds additional enumeration to further break down the **ISWG Guiding Principles** into the **ISWG Guiding Principles** Requirements. Where a Guiding Principle Requirement corresponds with a **LEED NC 2009** prerequisite or credit, a **LEED** cross-reference is cited next to the **ISWG Guiding Principles** enumeration. Refer to TPC reference manual for reporting requirements.

1.5.1 Commissioning

NOTE: Use the first bracketed paragraph for projects that have a Commissioning Authority (CxA) hired directly by the Government and delete the second. Use the second bracketed paragraph and items for Contractor-hired CxA, and delete the first.

GP Denotation - I.b.; LEED - EAp1 and LEED - EAc3

[Work with the Government's CxA to achieve requirements of the Commissioning (Cx) plan and other construction document requirements at each stage of commissioning. Maintain up-to-date records of commissioning activities in the Sustainable Notebook.

] [Using a qualified commissioning (Cx) authority, develop and incorporate Cx requirements into the construction documents. Develop and implement a Cx plan. Verify the installation and performance of the systems to be commissioned, including no less than: HVAC&R systems and associated controls, lighting and daylighting controls, domestic hot water systems, and renewable energy systems. Complete a summary Cx report.

Provide the following documentation:

- a. Commissioning Authority certifications
- b. Commissioning Authority qualifications
- c. Commissioning meeting minutes during construction
- d. Commissioning Plan, updated at each project stage
- e. For each commissioned system, completed pre-startup checklist, completed functional verification checklist and performance verification test report.
- f. Final commissioning report and narrative demonstrating project's fundamental commissioning requirements have been successfully executed

]1.5.2 Energy Efficient Equipment

GP Denotation - II.a.2.

Provide only energy-using equipment that is Energy Star rated, or has the Federal Energy Management Program (FEMP) recommended efficiency. Where Energy Star or FEMP recommendations have not been established, provide equipment with efficiency in the top 25 percent for the type of equipment procured. Provide only energy using equipment that meets FEMP requirements for low standby power consumption. Energy efficient equipment can be found at: <http://www1.eere.energy.gov/femp/> and <http://www.energystar.gov/>.

Provide the following documentation:

Proof that equipment is energy efficient and complies with the cited requirements.

1.5.3 Benchmarking

GP Denotation - II.e.1.

Provide report of baseline data with the energy design targets.

Provide the following documentation:

Prefinal Performance Report with data collected from the first 60 days of operation of the facility after Beneficial Occupancy Date (BOD). Submit this information with the Final Sustainability Notebook Submittal.

1.5.4 Reduce Volatile Organic Compounds (VOC)

GP Denotation - IV.d.; LEED - IEQc4.1, IEQc4.2, IEQ,4.3, IEQc4.4, IEQc4.5 and IEQc 4.6

Provide materials and products with ingredients, components and emissions that meet the volatile organic compound levels cited in UFC 1-200-02, "High Performance and Sustainable Building Requirements". Products include adhesives, sealants, paints, coatings, carpet and flooring systems, wood panel products, furnishings, walls, and ceilings.

Provide the following documentation:

- a. Documentation showing that materials do not exceed maximum VOC emissions of cited standards. Use VOC averaging to assure maximum paint and coating performance on painted items that are subject to human contact or harsh environmental conditions.
- b. Documentation showing that flooring materials comply with VOC emissions of cited standards.
- c. Documentation showing that composite wood and agrifiber products and associated laminating adhesives contain no added urea-formaldehyde.
- d. Documentation showing that furniture and seating is third-party certified.
- e. Documentation showing that all gypsum board, insulation, acoustical ceiling systems and wall coverings installed in building interior meet cited standards.

1.5.5 Indoor Air Quality During Construction

GP Denotation - IV.e. ;LEED - IEQc3.1 and IEQc3.2

Prior to construction, create indoor air quality plan. Implement IAQ plan during construction and flush building air before occupancy.

Provide the following documentation:

IAQ management plan for the construction and preoccupancy phases of the building that has been developed and implemented in accordance with Sheet Metal and Air Conditioning Contractor's National Association (SMACNA) Indoor Air Quality Guidelines for Occupied Buildings Under Construction 2007.

Provide required documentation showing that after construction ends and prior to occupancy, new HVAC filters were installed, and building air was flushed out a minimum of 72-hours with maximum outdoor air consistent with achieving relative humidity no greater than 60 percent, and indoor air temperature maintained at minimum 15.56 degrees Celsius 60 degrees Fahrenheit.

1.5.6 Recycled Content

Denotation - Va; LEED - MRc4

Provide materials on this project with aggregated total recycled content greater than 10 percent

Provide the following documentation:

- a. Documentation showing total amount of recycled content contained in building materials as a percentage of total cost of all building materials on the project (mechanical, electrical, and plumbing components, and specialty items such as elevators excluded).
- b. Substitutions: In case of conflict between project's recycled content goals and individual technical section requirements, Contractor may submit for Government approval, proposed alternative products or systems that provide equivalent performance and appearance and have greater contribution to project recycled content requirements. For all such proposed substitutions, submit with the Sustainability Action Plan accompanied by product data demonstrating equivalence.

1.5.7 Bio-Based Products

NOTE: LEED - MRc6 requires minimum 2.5 percent of the total value of all building materials and products to be rapidly renewable (which meet bio-based intent). This credit is highly desirable to augment the Guiding Principle Requirements, but not mandatory. Choose the bracketed option for projects that will meet the requirements.

GP Denotation - V.b.1[; LEED - MRc6]

Use bio-based products. Bio-based is defined as commercial or industrial products (other than food or feed) that are composed in whole, or in significant part, of biological products, renewable agricultural materials (including plant, animal, and marine materials), or forestry materials. Refer to www.biopreferred.gov.

Provide the following documentation:

Documentation to indicate bio-based products have been used.

1.5.8 Landfill Disposal

GP Denotation - V.d.1; LEED - MRc2

Divert 60 percent or more of construction waste from landfill disposal.

Provide the following documentation:

Documentation showing total amount of construction debris diverted from landfill as a percentage of all construction debris on the project.

Include project's Construction Waste Management Plan and all dumpster haul tickets.

1.5.9 Ozone Depleting Substances

NOTE: LEED Eac4 requires elimination of additional ozone depleting substances. This credit is highly desirable to augment the Guiding Principle Requirements, but not mandatory. Choose the bracketed option for projects that will meet the requirements.

GP Denotation - V.e; LEED - EAp3[, and LEED - EAc4]

Eliminate the use of ozone depleting substances during and after construction where alternative environmentally preferable products are available and in accordance with either the Montreal Protocol and Title VI of the Clean Air Act Amendment of 1990 or equivalent overall air quality benefits that take into account lifecycle impacts.

Provide the following documentation:

- a. MSDS sheets for all refrigerants provided
- b. Products that meet the criteria of U.S. EPA Significant New Alternatives Policy, available at <http://www.epa.gov/ozone/snap/index.html>.

1.5.10 Validation and Certification Restrictions

The purchase of renewable energy credits (RECs) to meet project sustainable goals is prohibited.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.1 SUSTAINABILITY COORDINATION

NOTE: Choose the bracketed options below for TPC projects.

3.1.1 Coordinating Sustainability Documentation Progress

Provide sustainability focus and coordination at the following meetings to achieve sustainability goals. Contractor's designated [TPC accredited] sustainability professional responsible for GP [and TPC] documentation must participate in the following meetings to coordinate documentation completion.

- a. Pre-Construction Conference: Discuss the following: [TPC and] HPSB/NSEDRC Checklist[s], Sustainability Action Plan, Construction submittal requirements and schedule, individuals responsible for achieving each Guiding Principle Requirement[and TPC prerequisite and credit].
- b. Construction Progress Meetings: Review GP[and TPC] sustainability requirements with project team including contractor and sub-contractor representatives. Demonstrate GP[and TPC] documentation is being collected and updated to the Sustainability Notebook[and TPC Online tool].
 - (1) Project Closeout Meetings (Begin closeout meetings no later than 75 percent construction complete): Review Sustainability Notebook[, and TPC Online submission] for completeness and identify any outstanding issues relating to final documentation requirements.
 - (2) Final Sustainability Notebook Review

[3.2 SUSTAINABILITY AWARD

NOTE: Choose the following bracketed option for projects that require the Contractor to obtain the TPC certification.

Finalize the sustainability certification process and obtain the TPC Certification Plaque and Certificates, indicating completion of the projects sustainability goals.

3.2.1 Third Party Certification Plaque and Certificates

Obtain and install plaque and provide one original framed copy of the certificate. Mount certificates in 25 mm 1 inch deep metal frames, with double matt, and wire hangers. Obtain [_____] additional certificates, and deliver to Contractor Officer, unless otherwise instructed. Hang the Plaque in a prominent interior location approved by the Contracting Officer.

] -- End of Section --

