Guiding Principles Survey

Completing a Guiding Principles Survey is a multi-stage process designed to help the user evaluate the compliance status for buildings according to the <u>Guiding Principles for Sustainable Federal Buildings</u>. By going through these steps, we can get an initial evaluation of a given building in an overview report and collect each document required for compliance into a convenient location.

To understand the results of the survey, an understanding what compliance means and how it is determined is necessary.

Compliance in and of itself refers to meeting enough of the conditions laid out in a set of requirements, and this instance is no different. The Guiding Principles consists of six principles and 30 criteria, each belonging to a specific principle, for determining compliance. Since this survey is focused on Appendix B of the Guiding Principles (as it applies to existing buildings), those specific requirements will guide these user documents. Here, a building is deemed compliant if and only if it satisfies all "Core" criteria (12) as well as at least half of the "Non-Core" criteria (9 of 18).

For a given criterion to be satisfied, there are a few possibilities corresponding to its overall structure. In most cases, simply satisfying the main requirements and at least one of the optional requirements is sufficient (Figure 1a). In a few cases, such as Criterion 2.2 (Figure 1b), this isn't necessary. Looking at Criterion 2.2 - Energy Metering, there are no additional options, so all that is required is satisfying the main requirements. Beyond this, there are some that only require satisfying an option while others require documentation to be provided. Any that are abnormal will have extra instructions explaining the other information needed.

1.0 - Employ Integrated Design Principles										
EB	Criteria 1.1	Integrated Design and Management	CORE (Std)							
Ensure that sustainability goals for the operation of the building are established and are incorporated into the building's Operations and Maintenance (O&M) procedures. If a renovation project is planned in the building, ensure that sustainability goals have been developed as part of the project to meet the Guiding Principles and that they are incorporated into applicable project design documents.										
 Use a collaborative, integrated process team tailored to the size and function of the building to plan, program, operate, and maintain the building. Ensure opportunities to optimize energy, water, materials, indoor environmental quality, recycling and composting, occupant health and wellness, transportation (including public transit, safety, parking, and electric vehicle charging), siting and landscape, the protection of historic properties and other cultural resources, community integration, and building resilience continue to be considered, supporting the building's function and mission throughout the life of the building. 										
Option 2	For buildings with renovation projects, use a collaborative, integrated process and team tailored to the size and function of the building to plan, program, design, construct, commission, and transition to operation the building renovation. Identify team members and roles. Ensure all opportunities from Option 1 are considered in the project									
Option 3	For buildings with renovation projects, use an integrated design process consistent with 2018 IgCC Appendix F Integrated Design.									
EB	Criteria 2.2	Energy Metering	CORE (S)							
Verify the use of existing meters or, if no meter exists, install building-level meters or advanced meters to the maximum extent practicable for electricity, and standard metering devices for natural gas and steam, in accordance with DOE's <u>Federal Building Metering Guidance</u> , per <u>42 U.S.C §</u> <u>8253(e)(1)</u> . In a case where shared infrastructure for a facility is served by one meter, the energy use of the building may be calculated and evaluated using engineering energy estimates based on the size, function, and complexity of the building.										

Figure 1 – Two different criteria within the Guiding Principles. Note that both have different requirements, with EB Criteria 2.2 not having any additional options required.

Survey Page Descriptions

There are several unique pages used within the Guiding Principles Survey, and this section is designed to give a high-level overview of each. The pages included are the Instructions Page, the RealProperties Page, the Data Entry Page, and the Compliance Report Page. More details on each can be found in their dedicated sections below. Before that, however, it is useful to understand the general framework for each page.

High Level Details and Instructions Page

Each page will contain a Header and a Main Body portion. The Header usually contains meta-information about a page as well as links and buttons that provide navigation capabilities and other utilities. As an example, the Instructions Page (Figure 2) contains the four buttons "SIGN OUT", "Shortcuts", "Help", and "RealProperties". Here, "Help" will pull up these instructions in a Word document, "Shortcuts" will provide a list of each built-in short cut to increase navigational quality of life, "SIGN OUT" will let you sign out, and "RealProperties" will let you continue to the next part of the form. Note that these will change as the page in focus changes.

The Main Body portion of the page is where most of the relevant information will be displayed and interacted with. Again, taking the Instructions Page (Figure 2) as an example, the main content is comprised of these instructions. There is not much content to interact with here, but other pages will contain such content.

Instructions Symbol Register on the Administration Yue these instructions as AVCO Continue to RealProperties Signed Principles Signed Principles Output principle	Kecurity Guiding Principles Survey	SIGN OUT	Shortcuts Help
<section-header> Yebe these instructions as a Word Document Continue to ReadPropertiest Biging Principles Survey The multi-stage process designed to help the user value the formionice states for buildings according to the Guidding Principles for Sustainable Federal Buildings. By going through tess tess, we can get an initial evaluation of a given building in an overview report and collect each building. By going through tess tess, we can get an initial evaluation of a given building in an overview report and collect each building. By going these tess, we can get an initial evaluation of a given building in an overview report and collect each building. By going these tess is the sturvey, an understanding what compliance means and how it is determined in the second of the sturvey, an understanding what compliance means and how it is determined in the second of the formiones in and of itself refers to meeting enough of the conditions laid out in a set of requirements, and this issance is no different. The Guiding Principles consists of six principles is on the substigibuildings, by toos specific requirements will guide these user documents. There are not possibilities corresponding to its overall structure. In most cass sping battistings, by this inst necessary, bucking at Christina 2.2. Foreign them are nequirements and at least one of the optional requirements. Beyond but are extent subtructure, and the start subtructure, and the set are not optional corresponding to the scale start structure. In most cas individue and under start structure set start structure is subtrive to the start structure. In most cas individue test extens instructure is estarting the main requirements and at least one of the optional requirements. Beyond the tot extens the start structure is estarting the test extens conclus. The <u>foreign the foreign to the start structure in the testerest conclus.</u> The <u>foreign </u></section-header>	Instructions	Sysadmin1 logged on as	Administrator
energy, water, materials, indoor environmental quality, recycling and compositing, occupant Option health and wellness, transportation (including public transit, safety, parking, and electric	View these instructions as a Word Document Guiding Principles Survey Completing a Guiding Principles Survey is a multi-stage process designed to help the compliance status for buildings according to the Guiding Principles for Sustainable Federat through these steps, we can get an initial evaluation of a given building in an overview reproducement required for compliance into a convenient location. To understand the results of the survey, an understanding what compliance means and his necessary. Compliance in and of itself refers to meeting enough of the conditions laid out in a set of this instance is no different. The Guiding Principles consists of six principles and 30 criteri a specific principle, for determining compliance. Since this survey is focused on Appene Principles (as it applies to existing buildings), those specific requirements will guide the Here, a building is deemed compliant if and only if it satisfies all "Core" criteria [12] as we the "Non-Core" criteria [9 of 18]. For a given criterion to be satisfied, there are a few possibilities corresponding to its over a given criterion to be satisfied, there are a few possibilities corresponding to its over a this, there are no additional options, so all that is required is satisfying the main requirements and at least one of the optional require (figure 1a). In a few cases, such as Criterion 2.2 (Figure 1b), this isn't necessary. Looking at white there are also motion while others require document Ary that are abnormal will have extra instructions explaining the other information needed in the steps of the option of th	e user evaluate the al Buildings. By going port and collect each how it is determined of requirements, and ia, each belonging to dix B of the Guiding ese user documents. Hell as at least half of all structure. In most rements is sufficient Criterion 2.2 - Energy iguirements. Beyond ation to be provided. ed.	Continue to RealProperties

Figure 2 – A display of the Instructions page in the Guiding Principles Survey. The header is the section with the dark blue background, and the main body with the white background.

Real Properties Page

On the Real Properties page, the header information remains nearly unchanged, but the main content differs drastically. Notably, there is a list of all the Real Properties that the current user has access to. Further, there are additional filters above these items which allow for easy customization of table in the main body. The

"Help" button provides further instructions for doing so. There is also a button "Duplicate Data" which allows a user to copy existing answers for various criteria from one building to another. Note that this will strictly overwrite existing answers in the destination building and that it will not copy over supporting documents.

Within the Main Body there are several noteworthy features. First, there are two different columns of hyperlinks: Real Property Unique ID (RPUID) and Compliance Status. Clicking on either hyperlink for a specific building will navigate to a different page corresponding to that building's Data Entry Form, or Compliance Report. Further, if a building's data entry has been finished, its status will update to display its compliance status (whether "In Compliance" or "Not in Compliance" rather than "Not Completed"). Beyond this, the table lists relevant information for each building, such as the facilities' names and addresses.

Homelan Security	^d Guiding Prin	ciples Survey	SIGN OUT	Shortcuts Instructions Help
Real Property	List	Duplicate Data	Sysadmin1 logged on as Ad	ministrator
Enter Search Criteria:				
Installation ID: RPUID:	Street Address:	City:	State: Zip Code: Latitute	e: Longitude: Audit Status:
✓	×	×	× × ×	× ×
Please click a RPUID to select	the building to start audit			Filter Clear Filter
Facility Name	Real Property Unique ID (RPUID)	Address	Latitude	Longitude Compliance Status
Cheltenham	FLETCBC1BCheltenhamChelte	9000 Commo Rd , Cheltenham, MD 20	0623, USA	Not Completed
Cheltenham	FLETCBC3BCheltenhamChelte	9000 Commo Rd , Cheltenham, MD 20	0623, USA	Not Completed

Figure 3 – A display of the Real Properties page in the Guiding Principles Survey.

Data Entry Form

In the Data Entry Form, the header's content changes drastically. First, there are many more buttons that enable the navigation between different buildings ([Prev Building] and [Next Building]), navigation between different criteria ([Prev Criteria] and [Next Criteria]), save the existing entered data ([Save]), clear the existing entered data ([Clear]), and upload supporting documents ([Upload Supporting Documents]). There are also links to go back to the Real Property form or to the Compliance Report (Overview). Beyond this, there are also drop-down boxes that allow for the selection of the specific desired facility (Facility Name) as well as a given criteria (Criteria Id) as well as high level information about each.

In the Main Body of the page lies most of the content of the Guiding Principles Survey, and likely where most of the time doing the survey will be spent. It consists of four main sections: Criteria Level Questions, Additional Requirements, Authorities for the Listed Criteria, and List of Supporting Documents.

In Criteria Level Questions, high level requirements to satisfy a given criterion are specified. To mark a Criteria Level Question as completed, first verify that the listed description is valid, then click the corresponding checkbox. Some questions may also require an explanation. This can be filled in by typing in the text box marked Explanation, which will have a red asterisk if an explanation is required. For ease of use, double-clicking on the text box will pop-out a larger window to type in. Finally, there is a Notes button that may provide additional details that assist with the answering of a given question, as well as an indication of a criteria's status as Core or Non-Core.

AGA I	Iomelanc	Prev Building	wext building	Frev Cittella	Mext Cittefia	Save	Ciedi	opioad su	pporting bocuments	
	Security	Facility Name Ch	eltenham		~	Criteria Id	1.1	~		Shortcut
AND SLOUP	Jecunty	RPUID FL	ETCBC1BCheltenh	namChelte		Principle	: Employ I	ntegrated Desi	gn Principles	Real Property
	B	uilding Address 90	00 Commo Rd Che	eltenham, MD		Criteria	: Integrate	d Design and N	/lanagement	Overview
Criteria Level	Questions									
Core descrip	tion					Cor	mpleted?		explanation	
 Sustainability Operations 	ty goals for the op and Maintenance	oeration of the buil (O&M) procedures	ding are establish	ed and are incorpo	orated into the buil	ding's	V	Notes		
 If a renovati part of the p documents. 	on project is plan roject to meet G	ned in the building uiding Principles, ar	, confirm that sus nd they are incorp	stainability goals h orated into applica	ave been develope able project design	d as	V	Notes		
Additional Re	quirements									
Question Name	description						Complete	d?	explanation	
Option	Verify that all su	boptions are valid					V	Notes		
1_Operations and								Suboptions		
Management										
Option	Verify that all su	boptions are valid						Notes		
2_Renovatio								Suboptions		
inteam								<u> </u>		
Option	For buildings wi	th renovation proje	cts, confirm that t	there is an integrat	ed design process			Notes		
3_2018 IgCC Appendix F- Integrated	consistent with	2018 IgCC Appendi>	F-Integrated Des	ign.				Suboptions		
Authorities fo	or the Listed (Criteria								
Authority Type		Authority Nan	ne			Re	lated Que	stion		
Standard		Integrated De	sign Process/Inte	grated Project Deli	ivery	Op	otion 3_201	8 IgCC Append	lix F-Integrated Design	
.ist of Suppor	ting Docume	nts								
<u>.ist of Suppor</u> Doc Id Doc Type	ting Docume	nts ocument Name							Date Uploaded	

Figure 4 - A display of the Data Entry page in the Guiding Principles Survey.

In Additional Requirements, any additional requirements to satisfy a given criterion are listed. The contents of this section are remarkably similar to the previous section, with a couple notable exceptions. First is the Question Name which provides a high-level understanding of what the additional requirement focuses on, and the second is a new button, Suboptions, which when clicked displays all suboptions for the additional requirement. Like the Criteria Level Questions, if an explanation is required, it will be indicated with a red asterisk.

There are a few notable exceptions to clicking the completed checkbox to mark a given question as completed:

- 1. Some Criteria Level Questions will only display: "Satisfy one of the following options:".
 - a. To satisfy this, simply mark one of the additional requirements as completed.
- 2. Some Additional Requirements specify: "There are no additional options to satisfy beyond the criteria"

a. To satisfy the criterion, just ensure that all the Criteria Level Questions are completed.

In the third section, Authorities for Listed Questions, all the authorities (e.g., guidelines, regulations, standards) associated with any question in either of the first two sections are listed. Each will have an authority type, the question it is tied to, and the name of the authority itself. If the Authority's name is clicked the relevant authority will be opened (in the web). If any of these links are broken, please reach out and let us know.

In the last section, List of Supporting Documents, all uploaded supporting documents are listed. Here, their name, id number, document type and when they were uploaded are all listed. Each document, when uploaded, creates a local copy of the document that will be displayed for every criterion in the building. Similarly to the Authorities section, clicking on the name of the document will open said document. These documents can be found by going into the GuidingPrinciplesArchive folder and navigating to the correct subfolder corresponding to the facility in question.

Compliance Report

The Compliance Report maintains the same overall structure as the other pages in this module. The header in this case, more closely resembles the Data Entry Form with a few significant changes. First is that the meta information is focused on the building itself, as this report is a summary of the criteria for a given building. Beyond this information, there continue to be links to "SIGN OUT", the various shortcuts as well as to the "Real Properties" list. Further, there is a print button, a button to expand all the criteria in the main body of the report, and two progress bars indicating the building's progress towards compliance.

		Homeland Security		Compliance Report for:				Expa	nd All	Print	SIGN OUT Shortcuts Real Property	
				Facility Name: Facility Address:	Cheltenham 9000 Commo Rd Cheltenham. MD 20623				8%			Core
				COMP_UNIQ_ID_TXT: FLETCBC1BCheltenhamChelte					11%	Non Core		
Core	Principle	Criteria	Criteria T	ïtle			Compliance					
	1	1	Integrated Design and Management				In Compliance					
	1	2	Sustainable Siting				Not in Compliance					
	1	3	Stormwa	ter Management	In Compliance							
	1	4	Infrastructure Utilization and Optimization				Not Started					
	1	5	Commiss	sioning			Not Started					
*	2	1	Energy E	fficiency			Not Started					

Figure 5 - A display of the Compliance Report page in the Guiding Principles Survey.

In the main body of the report, each criterion is listed organized by principle and number, and has listed the title and current building's compliance status for each. Each of these columns have specific triggers to better represent the information at hand. First, the Compliance column. There are three different statuses towards compliance: Not Started (where the criterion hasn't been started), Not in Compliance (where the criterion doesn't meet the compliance requirements), and In Compliance (where the criterion meets all the compliance requirements). Further the Compliance box will be colored in accordance with its status (Green for Compliance, red for not). Next is the Title column. Notably, this is designed as a hyperlink, and by clicking on the hyperlink, you will be navigated to the Data Entry Form focused on this building and the specific criterion of the clicked hyperlink. Finally, for ease of use for this report, all the subcriteria for all the criteria are hidden by default. To see these subcriteria, there are three methods. To see all subcriteria, simply click "Expand All" in the header (and "Collapse All" to hide them again). To see all subcriteria associated with a specific criterion, click the number associated with the principle. Finally, to see all subcriteria associated with a specific criterion, click the number associated with that criterion in the Criteria column.

How to run a Guiding Principles Survey

Disclaimer: this is the expected progression for moving through the Guiding Principles survey and where most of the testing was focused. Feel free to use the forms in other ways, but those processes may be less refined.

To begin, read through the instructions on this page, and when you feel comfortable click "RealProperties" to continue. Optionally, open these instructions in a Word document to have them available for reference later.

Once on the "Real Properties" page, find the facility you wish to fill out the Guiding Principles Survey for, and click its "Real Property Unique ID (RPUID)" to navigate to the data entry form. Feel free to use the filters to more easily find and navigate to the facility in question.

In the Data Entry Form, mark as completed all Criteria level questions that have been completed by selecting the corresponding checkbox and entering any further details in that you wish to store in the explanation box provided. If more detail is required, click on the Notes button for additional information. If the description references suboptions, click on the "Suboptions" button for details on what those are. Note that explanations are required when the box is marked with a red asterisk but can always be stored. Also ensure that all supporting documents are uploaded by clicking on the "Upload Supporting Documents" button and uploading the correct documents. Once this is accomplished, click "Save" and then "Next Criteria" until there are no more criteria left. At this point, click "Overview" to see the Compliance Report.

On the Compliance Report, look over your results, and verify that it matches your expectations. If it doesn't, navigate to the data entry form that corresponds to answers that don't match. If it does match expectations, feel free to print the results.

In you are satisfied with the results for your selected facility, then continue on to the next facility by selecting it from the Real Property List, and repeat the process. Note, if the facility is similar to a previously entered facility, the Duplicate Data utility may prove useful.