



Functionality Assessments





Functionality Index Updates

New for BUILDER 3.6 –

- No more Silverlight requirements – (Use modern browsers)



Agenda

- What is the FI Score
- How to modify / create FI Assessments
- How to Generate FI Work Items

Follow Along

- <https://my.buildersoftware.net/>
- Username: <your email>
- Password: Summit2021

Building No: 333

Building Name: Hangar

General Info

Additional Info

Assess. History

Work Item History

Systems at a Glance

Cost Modifiers

Attachments (0)

Building Attributes

Building Use: 13125 - MARS STATION

Building Type: MB04 - Steel Braced Frame

Current Status: Active

Unable to Inspect:

Construction Type: Permanent

Area: 8,000 SF

Year Constructed: 1985

Year Renovated:

Number of Floors: 1

Building Does Not Contain:

Mission Dependency Index

MDI:

Check box to override automated updates and manually enter MDI: ☐

Status

- ☐ Historic
☐ Child-Occupied Facility
☐ High Security
☐ Additional Access

Alternate ID: TT_333

Replacement Cost: \$3,710,566

Check box to override automated updates and manually enter replacement cost: ☐

ISR Rating:

Applied FCI Goal: 70

Check box to override automated updates and manually enter FCI Goal: ☐

Condition

Metric	Value
BCI	60
BFI	100
BPI	72
FCI	100

Functionality

Issue	Rating
Location	N/A
Cultural Resources	N/A
Text Wrap Mockup	N/A
Building Size and Configuration	N/A
Structural Adequacy	N/A
Access	N/A

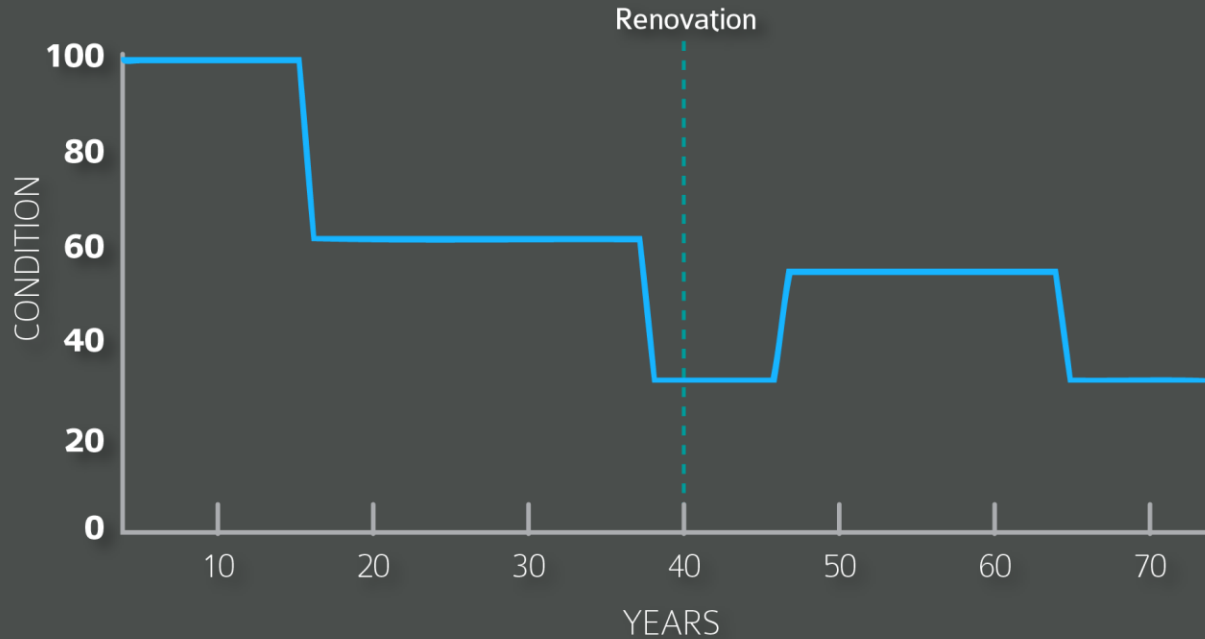


Functionality Index Score (FI)

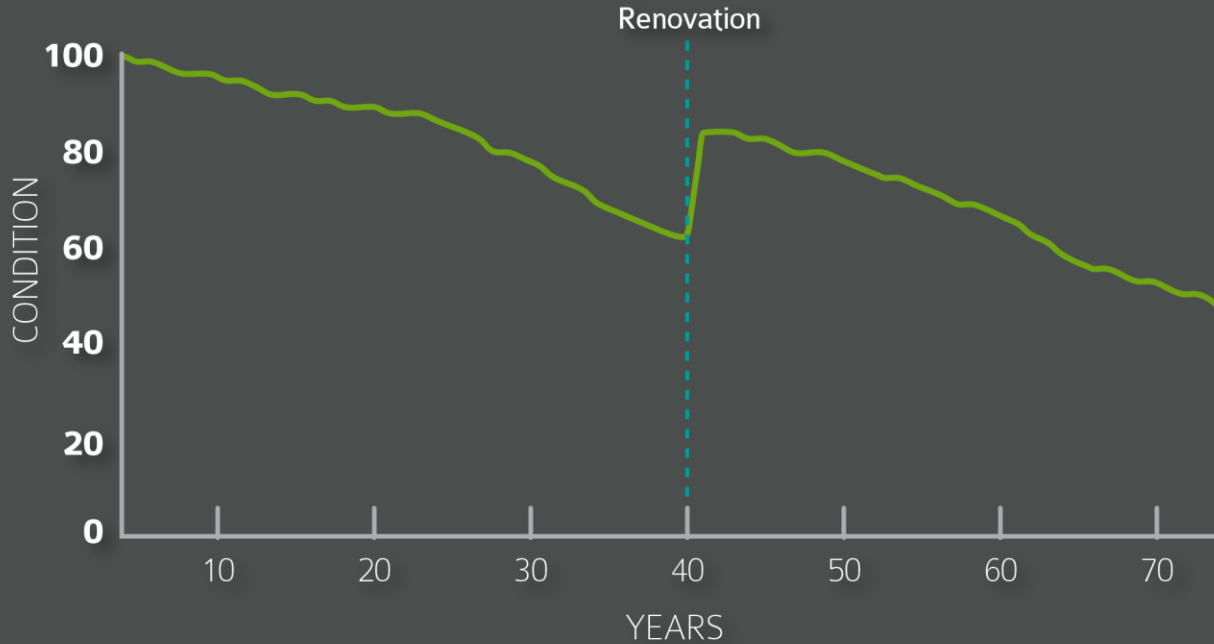
Definition: The functionality state relates to the Building's suitability to function as intended and required for mission. The functionality state is distinct from, and determined independently from, the physical condition state.

Although the functionality assessment is *not* a detailed engineering assessment, it does satisfy the requirements necessary for routine Building facility management activities, including long range budgeting and modernization planning. It also helps to quickly identify problem areas that need more detailed assessments. There may be times when detailed engineering assessments may be required to diagnose specific problems.

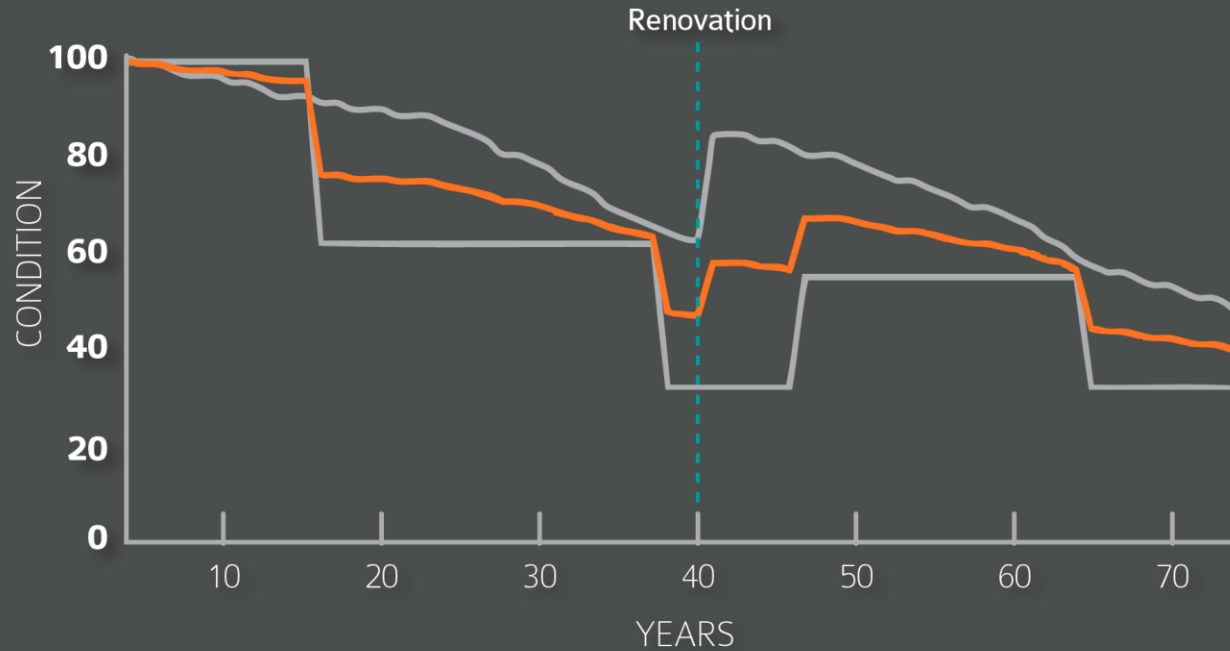
BUILDER Functionality Index (FI)



BUILDER Condition Index (BCI)



BUILDER Performance Index (PI)



Performance Index Score (PI)

The PI a combination of BCI and FI with greater weight to the lower score

The performance index is a useful metric that gives planners an idea of a building's overall performance by assigning a point value to both the condition and function of a building.

If CI is lower than FI
 $PI = (CI * 0.71) + (FI * 0.29)$

If FI is lower than CI
 $PI = (FI * 0.71) + (CI * 0.29)$



Demo

Work Configuration Work Plan Scenarios Reports Tools

Inventory

Condition

Functionality

All Search by Name or Number....

- DIGON Systems
 - 2020 - BUILDER Summit
 - 2021 - BUILDER Summit
 - 001 - Training Area
 - 1 - Demo
 - 002 - Training Area
 - 003 - Training Area
 - 004 - Training Area

Assessments Graph



Date 7/29/2021



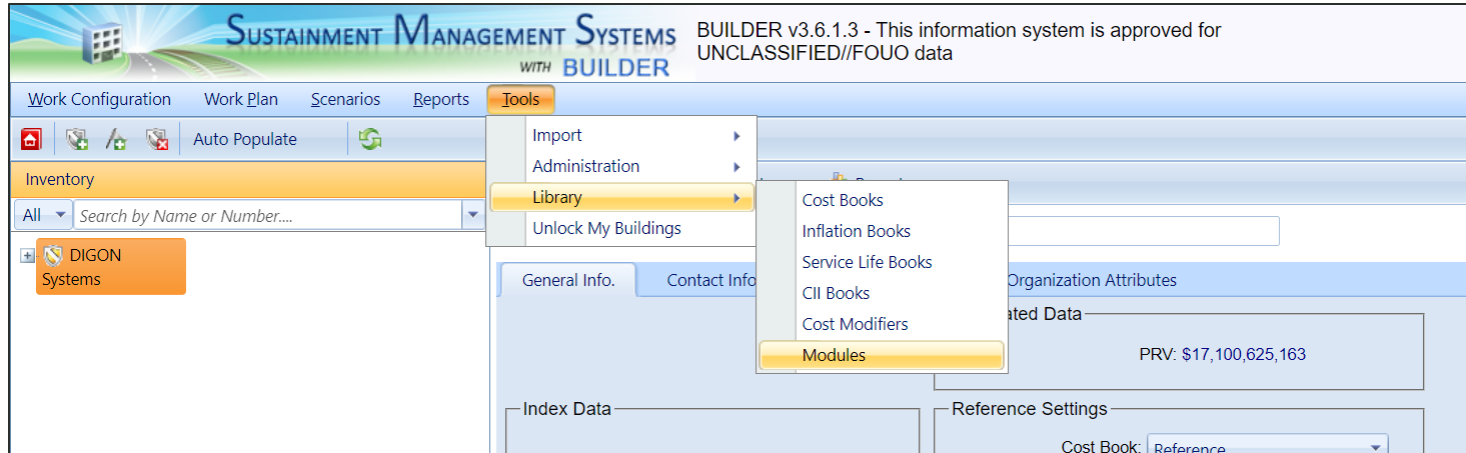
Status Current

Use Type

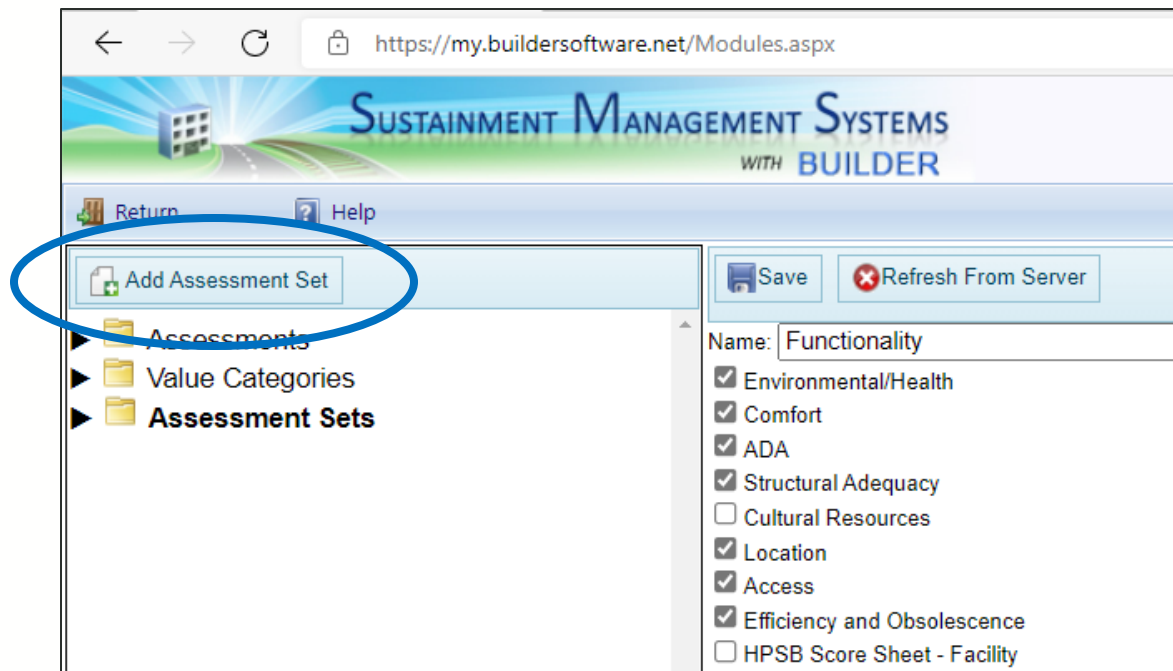
	Title/Question	Response
▲	Access	
	Is entry into the building quick and easy?	<input type="radio"/> G+ <input type="radio"/> A <input type="radio"/> R <input type="radio"/> N/A
	Is directional, informational, and room signage in and around the building adequate?	<input type="radio"/> G+ <input type="radio"/> A <input type="radio"/> R <input type="radio"/> N/A 1-10% ▼
	Is exit (egress) from the building quick and easy?	Assessment Wizard
▲	ADA	
	NULL Is the building ADA compliant?	Assessment Wizard
	Acoustics	



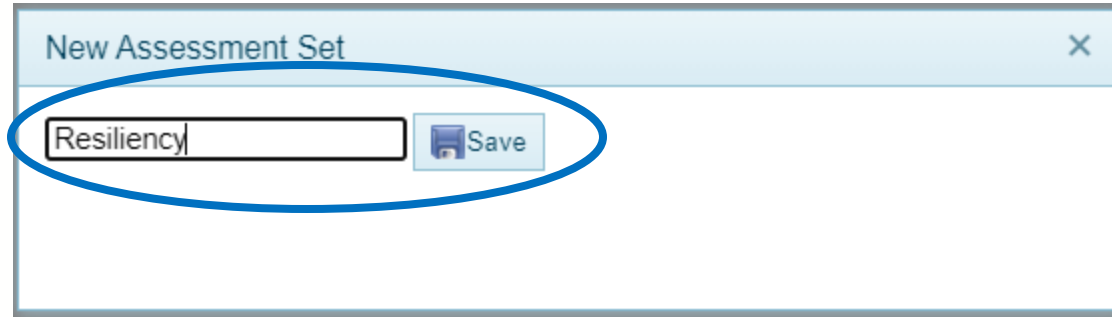
Intended for Customization



Create a new “Assessment Set”

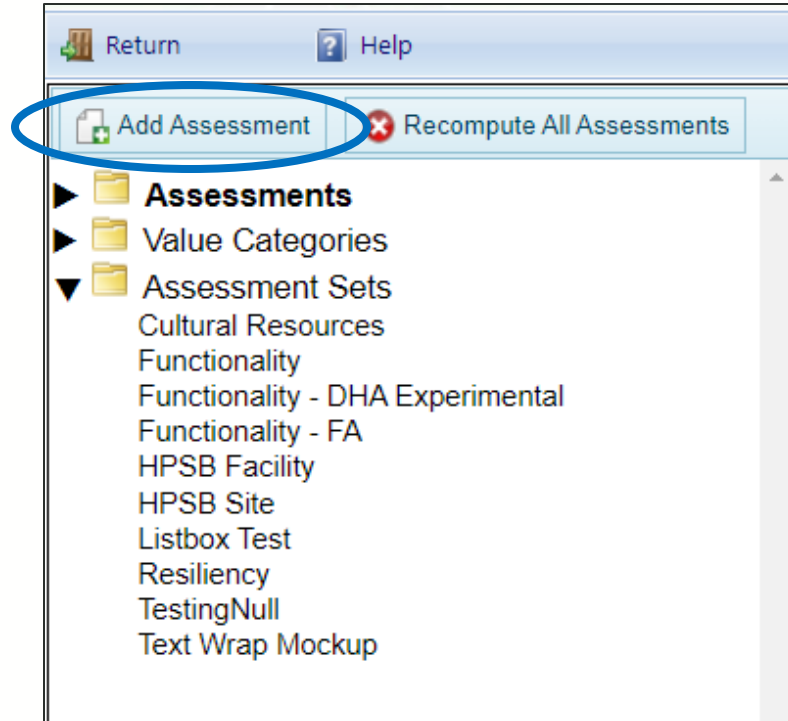


Name the “Assessment Set”

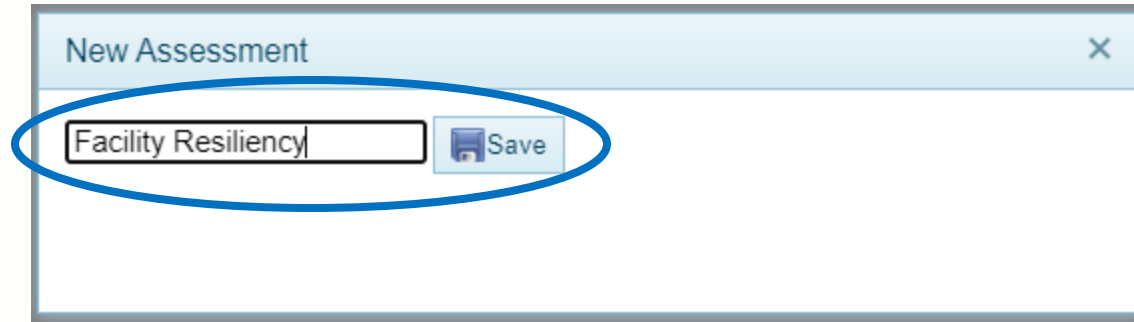


A screenshot of a software dialog box titled "New Assessment Set" with a close button (X) in the top right corner. Inside the dialog, there is a text input field containing the word "Resiliency" and a "Save" button with a floppy disk icon. A blue oval is drawn around the text input field and the "Save" button.

Create A New Assessment





Create A New Assessment



The image shows a software dialog box titled "New Assessment" with a close button (X) in the top right corner. Inside the dialog, there is a text input field containing the text "Facility Resiliency". To the right of the input field is a button with a floppy disk icon and the text "Save". A blue oval is drawn around the text input field and the "Save" button, highlighting them.

Assessment Type



 Save  Refresh From Server

Name: Result Type: Weight:

Target Type:

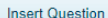
Insert Question

Adding Questions

 Save  Refresh From Server

Name: Result Type: Weight:

Target Type:





Weight:





☒ Has Comments

☒ Has Photos

Add Questions

Return Help

Delete

Save Refresh From Server

Name: Hurricane Risk Zone: Result Type: None Weight: Target Type: Facility Sequence: 8

Insert Question

The analysis used ASCE Standard 7-98 Hurricane Wind Speed Design Map to assess the probability of hurricane force winds for a particular location. Where I

Weight:

Basic Condition Green/Red

Insert Child Question

Insert Question

Remove

None

None

☐ Has Comments

☐ Has Photos

G DropDownWithText

Building Services

Building Services

Building Size and Configuration

Building Size and Configuration

Comfort

Comfort

Cultural Resources

Cultural Resources

Cultural Resources - Wizard

Drought:

Efficiency - Wizard

Efficiency and Obsolescence

Efficiency and Obsolescence

Egress Wizard

Environmental/Health

Environmental/Health

FEMA Flood Zones:

HPSB Score Sheet - Facility

HPSB Score Sheet - Facility

HPSB Score Sheet - Site

Hurricane Risk Zone:



Now Available

Work Configuration Work Plan Scenarios Reports Tools

Inventory

Condition

Functionality

All Search by Name or Number...

- USCG Testing
- BuilderQA
 - 000 - SPIRE Demo
 - 0001 - DEV Test
 - 0002 - Paul Org
 - 0003 - Drew Org
 - 001 - Sandia
 - 001 - Tetra Tech
 - 123 - Test Site
 - 222 - Command Center
 - 333 - Hangar
 - 444 - Hospital
 - 0010 - Rebel Alliance
 - 0011 - Work Item Tests
 - 0012 - Scenario Summary Tests
 - 0014 - SPIRE 2.8 Testing
 - 003 - LLNL
 - 007 - Dawson
 - 01 - Kurt Org
 - 01 - OHM Advisors
 - 02 - Benant QA
 - 04 - Comparison Tool Test
 - 0811 - Olivia Test Org
 - 12345 - No Section Test
 - 1337 - SPIRE Demo

Assessments Graph

New

Assessment Type

New Assessment

- ☒ Resiliency
- ☐ Listbox Test
- ☐ TestingNull
- ☐ Cultural Resources
- ☐ Text Wrap Mockup
- ☐ HPSB Facility
- ☐ Functionality

Create New Assessment

Delete

- Assessments
- Value Categories
- Assessment Sets
 - Cultural Resources
 - Functionality
 - Functionality - DHA Experimental
 - Functionality - FA
 - HPSB Facility
 - HPSB Site
 - Listbox Test
 - Resiliency**
 - TestingNull
 - Text Wrap Mockup

Save

Refresh From Server

Name: Resiliency

Target Type Facility

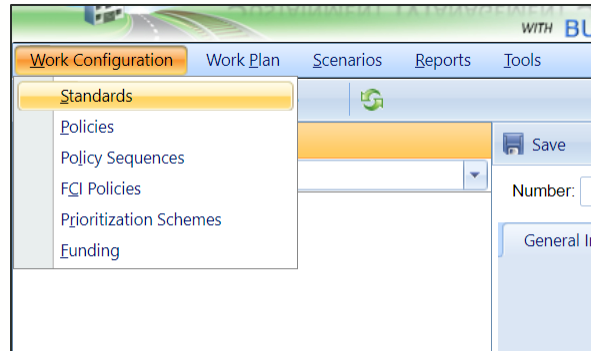
- ☐ Environmental/Health
- ☐ Comfort
- ☒ Hurricane Risk Zone:
 - ☐ ADA
- ☒ Tsunami Wave Risk:
- ☒ Drought:
- ☐ Structural Adequacy
- ☒ Seismic / Earthquake Risk:
- ☒ Tornado/Wind: (Zones 1-4)
- ☐ Cultural Resources
- ☐ Location
- ☐ Access
- ☐ Efficiency and Obsolescence
- ☐ HPSB Score Sheet - Facility
- ☐ Text Wrap Mockup
- ☐ Building Services
- ☐ Missing or Improper Components
- ☐ ATRP
- ☒ Wildfire Risk:
- ☒ Wind Resiliency Score.
- ☒ Sea Level Rise (SLR):
- ☒ FEMA Flood Zones:
 - ☐ Building Size and Configuration
 - ☐ Aesthetics
 - ☐ Maintainability



FI Score For Your Organization

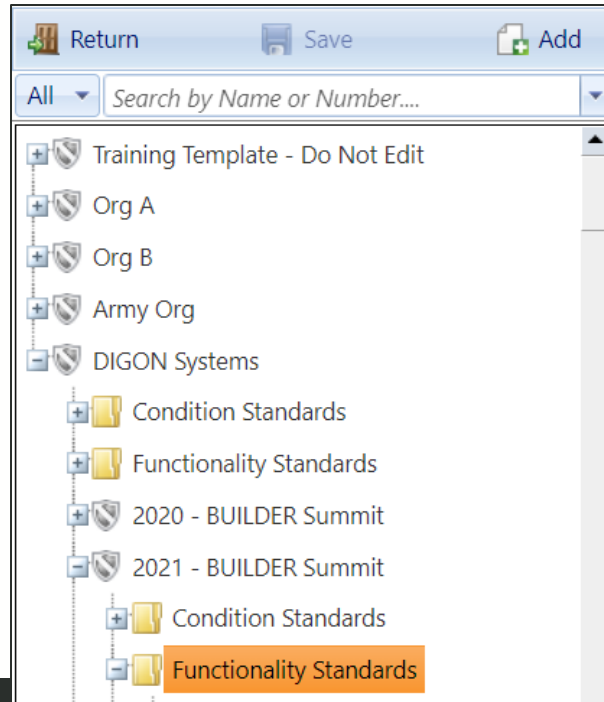
Assessments		Graph
<div>Save Close</div>		
Date	12/10/2020	Status Current Use Type
	Title/Question	Response
	Drought:	
	The analysis was a snapshot of the National Weather Service Drought Condition Map of August 2016, which nationally had a record-setting drought condition. Buildings were assigned a score based upon their location using the color coding in the table.	D-3
	FEMA Flood Zones:	
	The analysis used the most recent FEMA, State or locally approved flood maps. Buildings located within the 1% (100-year event) boundary were coded "red." Buildings outside the 1% boundary, yet within the 0.2% (500-year event) boundary were coded "yellow." Buildings outside the 0.2% boundary were coded "green." FEMA flood maps do not account for storm surge. The analysis did not examine finished floor elevations or other possible mitigations.	R
	Hurricane Risk Zone:	
	The analysis used ASCE Standard 7-98 Hurricane Wind Speed Design Map to assess the probability of hurricane force winds for a particular location. Where the minimum design load is for 110 mph or less, the building is coded "green." Where it is between 110 and 120 mph, it is coded "yellow." Where it is between 120 and 130 mph, it is coded "orange." And where it is between 130 and 150 mph, it is coded "red." For normal building construction (not shelters), 150 mph is the maximum design wind load. Category 5 hurricanes are classified as having winds exceeding 157 mph.	R
	Sea Level Rise (SLR):	
	The National Climate Assessment predicts that 1 to 4 feet of SLR is plausible by year 2100. One foot of SLR was evaluated in this assessment to identify Coast Guard buildings within the zone affected by 1 foot SLR. Buildings within the 1 foot SLR area were coded "red" and those outside the 1 foot SLR area were coded "green." The analysis did not examine finished floor elevations or other possible mitigations. Risk was assessed by using multiple technical sources from Federal and State Government agency, and private sector websites which predict SLR activity. These creditable and subject matter expert sources of information were used to determine each building's specific risk to SLR.	R
	Seismic / Earthquake Risk:	
	Color indicates the risk of the building being damage due to a design earthquake of 7.0. ASCE Publication 41-13 considers the seismic activity (probability), soil and construction types (consequence) to determine the seismic risk to a structure. Each building's seismic resiliency was calculated using the ASTM 41-13 methodology. Scores below 0.5 indicate a high risk of building damage or potential collapse and are coded "red". Buildings with scores between 0.5 and 2.0 require a more detailed structural analysis, known as a "Tier 2" analysis to predict building behavior in the event of an earthquake. These buildings were coded "yellow", and indicate uncertainty. Buildings scoring above 2.0 are expected to perform satisfactorily in a design earthquake, and are coded green. Satisfactory building performance means the building may sustain damage, yet will allow for the safe evacuation of occupants.	G+
	Tornado/Wind: (Zones 1-4)	

Work Item Management





FI Standards





FI Standards

Return Save Add Delete

Standard Name:

All Search by Name or Number...

- 2021 - BUILDER Summit
 - Condition Standards
 - Functionality Standards
 - Summit Standards

Minimum BFI for Modernization:

Minimum Issue FI for Modernization:

Minimum BPI for Reconstruction:



FI Policy

Return Save Add Delete

All

Policy Name:

Training Template - Do Not Edit

Org A

Org B

Army Org

DIGON Systems

- Condition Policies
- Functionality Policies
- 2020 - BUILDER Summit
- 2021 - BUILDER Summit
 - Condition Policies
 - Functionality Policies
 - Facility Use**

Attributes Used to Define Policy

First Attribute: Third Attribute:

Second Attribute: Fourth Attribute:

Select Standards for all attribute combinations that apply to this policy.

Building Use Category	Standard
Administrative Facilities	<input type="text" value="Summit Standards"/>
Community Facilities	<input type="text"/>
Family Housing	<input type="text"/>
Hospital/Medical Facilities	<input type="text"/>
Maintenance/Production Facilities	<input type="text" value="Summit Standards"/>
Operational/Training Facilities	<input type="text"/>



Policy Sequence

Return Save Add Delete

All Search by Name or Number....

Training Template - Do Not Edit

Org A

Org B

Army Org

DIGON Systems

- Demo Sequence
 - Default
 - 2020 - BUILDER Summit
 - 2021 - BUILDER Summit
 - Summit Sequence

Policy Sequence Name: Summit Sequence

Default Condition Standard: Green (default)

Default Functionality Standard: Summit Standards

Available Policies

<input type="checkbox"/>	Organization	Policy Name
<input type="checkbox"/>		test
<input type="checkbox"/>		Default

Selected Policies

<input type="checkbox"/>	Organization	Policy Name
<input type="checkbox"/>		System
<input type="checkbox"/>	2021	Facility Use
<input type="checkbox"/>		Building Type by Component



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DIGON
SYSTEMS

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wood.

Data Quality: Air Force Program

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LLNL's Computerized Maintenance Management System (CMMS) Integration to BUILDER

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