

CNA E-TOOL V.3.2 USER GUIDE

USER GUIDE VERSION 7, SEPT 2025



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CNA INTRODUCTION

HOW TO USE THIS GUIDE

This instructional guide is a companion to the Capital Needs Assessment (CNA) e-Tool created by the U.S. Department of Housing and Urban Development (HUD) and the U.S. Department of Agriculture (USDA). This version of the guide applies to version 3.2 of the e-Tool, a fully web-based application with a single user interface. This guide will assist you in understanding the CNA process flow, entering information into CNAs, editing CNAs, finding and sending CNAs, and reviewing the data entered into CNAs.

CNA e-Tool is comprised of three types of screens: (1) Dashboard, (2) CNA Input, and (3) Validation screens. From the Dashboard screens, you will be able to locate and open CNAs quickly using the Search function and preset Filters. In the CNA Input screens, you will enter all the relevant data and information about the property. The Validation screens will show you the calculated results of the entered data and allow you to respond to flags.

This guide contains a separate section for each type of screen. The sections on the Dashboard, CNA Input, and Validation screens will provide you with information on how to enter data into the e-Tool and understand how to use the e-Tool's functionality. Each section describes how the screens are organized and what information is required. In addition, this guide provides a Process Overview chapter and Appendices with supplemental information.

SCREEN TYPE SECTIONS

Below is a brief summary of the three screen types and their corresponding sections.

DASHBOARD SCREENS

After logging into CNA e-Tool, you will first see your personalized Dashboard. The Dashboard is the default home screen of CNA e-Tool for external users. It displays CNAs that are relevant to you. This section describes the Dashboard screen views and functionality. From your Dashboard you can quickly access CNAs that are in your possession, are in your partner firm's possession, or have been submitted to your Approving Agency, such as HUD.

This section also describes the left menu bar of the screen, which is divided into two tabs:

- **My CNAs** — provides quick preset filters based on the types and statuses of CNAs you yourself are working on; and
- **Search** — allows you to search for all CNAs that are being worked on within your firm or organization.

A user opens a CNA displayed on the Dashboard screen by clicking on the Assessment ID of the CNA. The Dashboard is also where a CNA is initiated—or first created.

CNA INPUT SCREENS

Once you open a CNA, there are numerous input screens that you and your partner complete, as well as an Options menu that allows you to take actions that affect the CNA as a whole. This section provides detailed instructions for entering information into the CNA. Each CNA screen is described in a separate chapter, as is the Options menu. The individual chapters in this section are as follows:

1. **Options** — details the actions that a user can take from the Options menu, which differ slightly depending on the User type and CNA type. This chapter describes the actions available from the Options menu, including: submitting a CNA, sending a CNA to a partner, creating a new version of a CNA, exporting a CNA to an Excel file, and importing portions of another CNA to the one on which you are currently working.
2. **CNA Summary** — defines how the CNA Submitter/Initiator selects the Approving Agency, CNA type, and program type or event, which ultimately determines the users' roles and the screens each user will be able to enter and edit.
3. **Assessment Scope** — provides instructions on how to enter information that defines the scope and purpose of the CNA, including information about units inspected, vacancies, energy audits, and special inspections required.
4. **Participants** — describes how to enter information about the parties involved in developing the CNA, such as the owner, purchaser, needs assessor, lender, architect, etc.
5. **Utility Types and Rates** — describes how to list all of the utilities used in the property by type and who pays for them (residents or owners), as well as the unit of measure and cost associated with each.
6. **Sites** — explains how to enter information about individual property sites. A site usually contains one or more buildings. However, a property may have multiple scattered sites or an owner may have acquired a site for ancillary purposes, such as parking.
7. **Buildings** — describes how to enter all of a property's buildings for each site that has structures on it. Buildings are assigned to sites on this screen as well.
8. **Unit Types** — describes how to enter information about all the unique unit types within a property.
9. **Units and Common Spaces** — explains how to assign unit types to individual buildings. The chapter also instructs users on how to add information about all of the common spaces associated with that site and/or building, both interior and exterior, except for surface parking.
10. **Parking** — describes how to enter information on covered and uncovered surface parking and how to change certain pieces of pre-populated information about common garages and in-unit garage parking.
11. **Components, Alternatives, and Recommendations** — explains where and how to list all the property's physical attributes, indicate recommended actions and timing, and assign one or more Alternatives for each Component.
12. **Repair Needs Analysis** — allows for the creation of up to three different versions of the Critical and Non-Critical Repair Lists where different alternatives are chosen and enables users to compare the operating costs of each set of alternatives.

13. **Units Inspected** — describes how to enter information about which specific units are to be and/or were inspected.
14. **Narratives and Attachments** — describes how to enter any narrative that is pertinent to the CNA. The chapter also describes how to upload documents with supplemental information as attachments.
15. **Financial Factors** — provides detailed information about how the CNA Submitter specifies the parameters used to structure the Financial Plan for funding recommended future repairs and replacements.
16. **Repair Replace Decision** — describes how the CNA Submitter records final decisions to alter any of the Preparer's Recommendations on Components and Alternatives. The Submitter can select a Component, review the Component Alternatives that were recommended by the Preparer, and select a different Alternative as the final decision.

Each chapter includes snapshots of the screen and describes how to complete the various fields. Some chapters contain a More Information subsection, which provides additional context and instructions for the screen highlighted in that particular chapter.

VALIDATION SCREENS

This section describes how to view and interpret information available under the Validation tab, which is available at the top of the left sidebar. Under the Validation tab, you can view different areas of validated results. These views include:

- **Flags View** — displays validation flags and is where a user can enter responses to those flags.
- **Repair Needs View** (read only) — displays a summary of repair needs.
- **Future Needs View** (read only) — displays a summary of future needs.
- **Financial Schedule and Estimate Period Recap** (read only) — displays a financial summary and schedule.
- **Reserve for Replacement** (read only) —display Reserve for Replacement Deposit Schedule and Annual Deposit Schedule
- **Reports** — displays links to generate reports such as Property Insurance Schedule and Assessment Summary Report.

OTHER USER GUIDE SECTIONS

PROCESS OVERVIEW

The Process Overview section provides information about the CNA process flow, the types of CNA e-Tool users, user roles within the system, and various user pathways. It describes how the system works as a whole.

APPENDICES

This section contains additional information that will assist you in understanding how to complete the fields in the CNA input screens and other important items that require more detailed instructions, including the following:

- **User Path Matrix** — The User Pathways provide a framework for anyone who touches the CNA and determines the user's responsibilities, depending on who the user is, the CNA type, and the HUD program for which the CNA is being prepared.
- **Data Entry Process** — describes the process of entering data in phases and which screens are entered during each phase.
- **Data Entry by Role** — This chart outlines which screens may be edited by CNA participants with specific user roles.
- **Copy/Paste function** — allows you to add, edit, and delete data from a CNA using Excel, so you can copy data from and paste data into a CNA.
- **How to Edit Returned CNAs** — This describes what to do when HUD returns a CNA and how to create an editable version.
- **Data Fields by User path** — shows how some input fields on screens vary depending on the user type and CNA type.

PLEASE NOTE: Within CNA e-Tool, what the user sees for a particular field or fields is dependent upon the user type, CNA type, and program or event type. This affects a relatively small percentage of the fields. These dependencies are noted in the CNA Dependency User Path Matrix located in the Appendix. To alert users about these dependencies, so that they are not concerned if a particular field looks different from what is shown in this Guide, an asterisk is visible next to the description of the applicable fields.

- **CNA e-Tool Field Character Limits** — This table includes the character limits of all user input fields in CNA e-Tool.
- **CNA e-Tool Flags and Their Cause Notes** — This table explains all of the flags that may appear for a CNA.

ADDITIONAL RESOURCES

If you cannot find the information you are looking for, please see the additional resources below:

- For more information about Multifamily Accelerated Processing, see the **MAP Guide**.
- For CNA e-Tool trainings, see the [Capital Needs Assessment Training Curriculum](#) on the HUD Exchange.
- If you have questions related to CNA e-Tool, please submit them to CNAeTool@hud.gov.

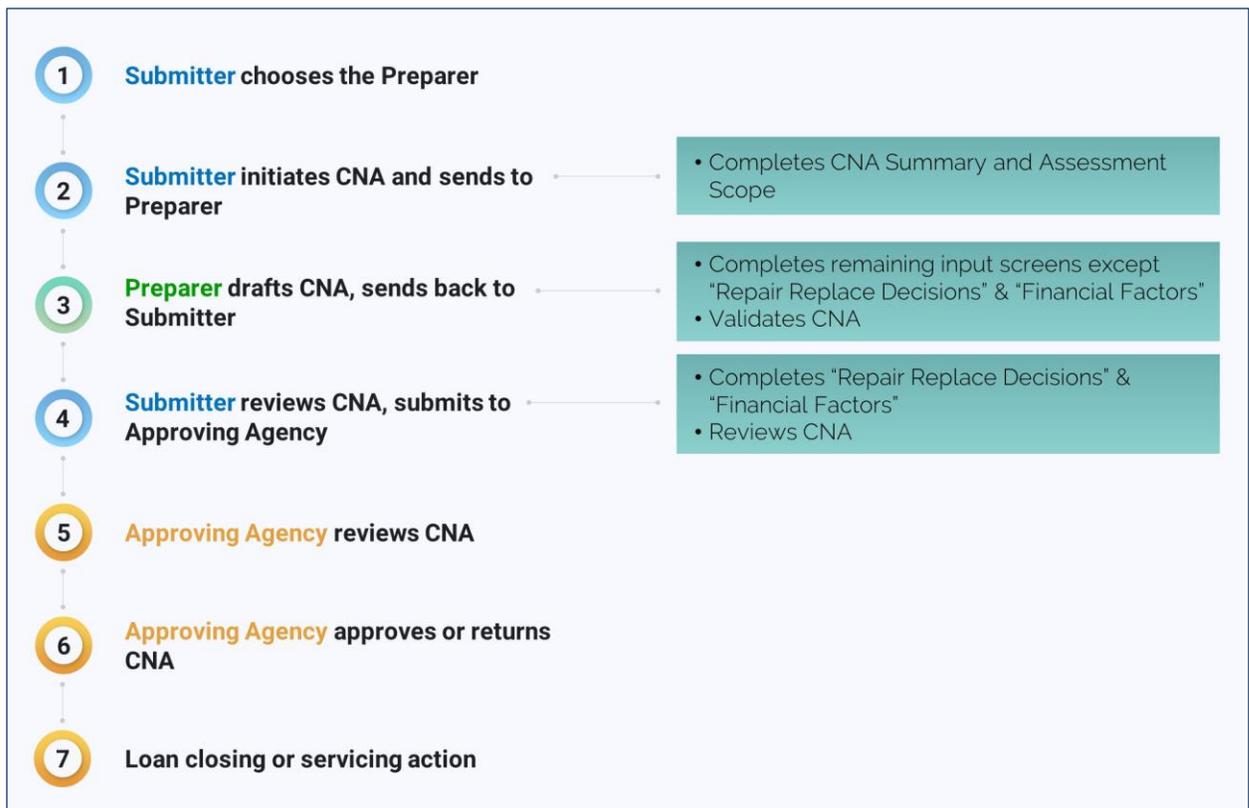
CNA PROCESS OVERVIEW

This section provides an overview of the CNA completion and submission process within CNA e-Tool and is divided into three sections:

- The **CNA Process Flow** shows how developing and completing a Capital Needs Assessment (CNA) in CNA e-Tool fits in the larger CNA process.
- The **User Roles** section explains the various roles and permissions in CNA e-Tool and who fulfills these roles for a given CNA.
- The **User Pathways** section provides a framework for anyone who touches the CNA and determines the user's responsibilities. The design of CNA e-Tool is predicated on the "User Path" approach — meaning, who the user is, the CNA type, and the HUD program for which the CNA is being prepared determine:
 - What information is requested on the screens;
 - What screens the user can view;
 - What screens users may edit and what screens require data entry from the user; and
 - Who can submit a completed CNA to the Approving Agency.

CNA PROCESS FLOW

This chart shows how CNA e-Tool fits in the larger Capital Needs Assessment process. It explains which role performs which function. Steps 2 through 4 below are completed using CNA e-Tool. Steps 5 through 7 are completed by the Approving Agency after the CNA is submitted.



USER ROLES

There are three primary user roles in CNA e-Tool (Submitter, Preparer, and Approving Agency). The users for each of these roles will depend on the type of CNA that is being submitted. For example, a 213 Cooperative Asset Development CNA will have a lender as the Submitter, a needs assessor as the Preparer, and HUD as the Approving Agency. In some cases, the Submitter and Preparer will be the same user. Find your program in the table below to see the users who fulfill each role per program type.

- The **Approving Agency** reviews the CNA once it is submitted. The Approving Agency will be HUD or USDA.
- The **Submitter** initiates the CNA by creating a new CNA in the e-Tool and submits it to the Approving Agency. Submitters will generally be lenders, Participating Administrative Entities (PAEs), Multifamily Assessment Coordinators (MACs), and Public Housing Agency (PHA) users. For a select group of programs, needs assessors can be Submitters.
- The **Preparer** fills out most of the input screens but does not initiate or submit the CNA. Preparers are typically needs assessors, but at times may be PHAs. As mentioned above, for some programs, needs assessors can both prepare and submit the CNA to the Approving Agency.

Approving Agency	Program	Submitter	Preparer		
HUD	213 Cooperative	Lender	Needs Assessor		
	220 Redevelopment				
	221(d)(4)				
	LIHTC 221(d)(4) Pilot				
	223(a)(7) Limited Refi				
	223(f) Refi-Acq				
	223(f) Refi of 202				
	231 Elderly				
	241(a) Supplemental				
	10 yr update, insured mtg				
	PPC/Loan Mod, insured mtg				
	TPA, assumption of insured mtg				
	PRACs			Needs Assessor	Needs Assessor
	HAP Renewal				
	Rent Increase/HAP amendment				
	Change of Ownership Uninsured				
	Other Asset Management				
	RAD – MF				
	RAD – PRAC				
	Post-M2M				
	Other Asset Recapitalization	PAE	Needs Assessor		
	M2M				
	GRRP			MAC	Needs Assessor
	RAD-PH Rehab			PHA	Needs Assessor
	RAD-PH New Construction			PHA	Needs Assessor or PHA
	RAD-PH Sub Rehab				

USDA	As – Is	Needs Assessor	Needs Assessor
	As – Improved		
	Post Rehab		
	Construction CNA		

USER PATHWAYS

Submitters and Preparers have different responsibilities in the CNA process depending on the CNA type, as well as the program type. There are three CNA types related to HUD programs. These are as follows:

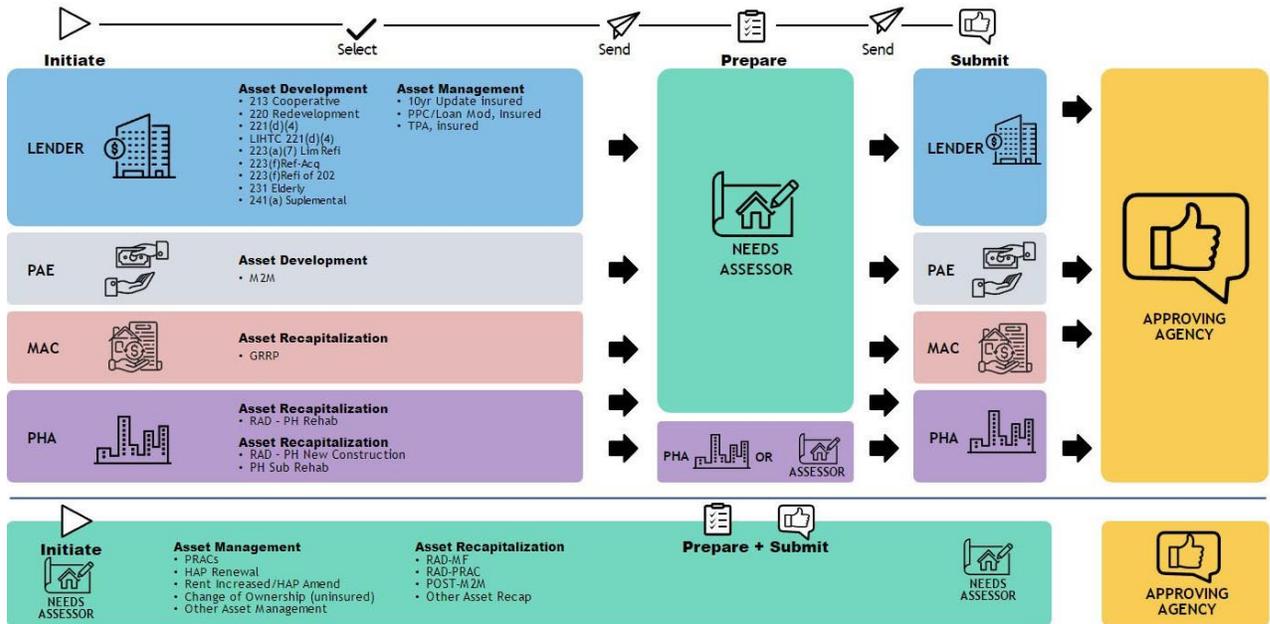
- Asset Development
- Asset Management
- Asset Recapitalization

Find your CNA type and program type in the left column in the chart below to see how the CNA moves between the different users. If the Preparer and Submitter are the same user (i.e., needs assessor), then the CNA does not need to be sent between steps 1, 2, and 3.

Step 1. The **Submitter** initiates the CNA by first creating it and sends it to the **Preparer**.

Step 2. The **Preparer** drafts and validates the CNA and sends it back to the **Submitter**.

Step 3. The **Submitter** reviews the CNA, makes a decision on each Component, enters the financial factors information, and submits the CNA to the Approving Agency.



SECTION I: DASHBOARD SCREENS

The Dashboard screens are the first screens a user sees upon logging into CNA e-Tool.

The left sidebar portion of the screen has two tabs:

- My CNAs
- Search

The My CNAs tab contains quick pre-set filters, which allow you to see the CNAs you are or were in possession of, by CNA Type & Program, and by Status. You may click on a filter to only display CNAs in that particular category. You can also filter by CNA status.

The Search tab also has quick filters, by CNA Type & Program. In the search view, the filters account for all the CNAs within your organization. Above the set of quick filters, you can also search by selecting your own parameters.



A stylized illustration of a cityscape on the left side of the page. It features several buildings of varying heights and colors (green, blue, white) with grid patterns representing windows. There are also trees and bushes in shades of green and blue. The background is a solid green color.

CHAPTER 1: HOME SCREEN

OVERVIEW

The Home screen is the main home page of CNA e-Tool Dashboard. From here you can access CNAs that you, your organization, or your partner organization possess. New CNAs are also created on the Home screen.

The CNAs in “My CNAs” are the CNAs that are most relevant to you. This includes CNAs that are waiting to be assigned to an individual in your organization, are already in your possession, are in your partner organization’s possession, or have been submitted.

Your Dashboard will only display CNAs that have been edited in the last three months. Any CNAs older than three months will be hidden from the Dashboard but can be located using the Search tab.

DASHBOARD VIEW — MY CNAs

6 TYPE & PROGRAM

7 USDA

9 PINNED

10 STATUS

1 START NEW ASSESSMENT

2 NEW ASSIGNMENTS RECEIVED (1)

Assessment ID	Property Name	Location	Last Modified Date	Sent/Status Date
<input type="checkbox"/> 2021-100034	Green Pasture	Virginia, Arlington	4/28/2021	

11 Options

- 11A** Select All
- 11B** Unselect All
- 11C** Pin
- Unpin
- Hide

3 MY DESK (7)

Assessment ID	Property Name	Location	Last Modified Date	Sent/Status Date	Partner
<input type="checkbox"/> 2021-100044	Bea***ers (LAST - MCNT11.F. 0362)	Texas, Paris	4/29/2021		ALABAMA TEACHERS RETIREMENT SYSTEM, ECNA V. T.
<input type="checkbox"/> 2021-100043	Test Misc	Texas, Paris	4/29/2021		ALABAMA TEACHERS RETIREMENT SYSTEM, ECNA V. T.

4 MY PARTNER'S DESK (8)

Assessment ID	Property Name	Location	Last Modified Date	Sent/Status Date	Partner
<input type="checkbox"/> 2021-100031	Tes***y 4 (ECNA I, T.0330) (ECNA I, T.0030)	Virginia, Fairfax	4/14/2021		HEARTLAND CAPITAL CORPORATION, ECNA I, T.

5 WITH AGENCY (3)

Assessment ID	Property Name	Location	Last Modified Date	Sent/Status Date	Partner
<input type="checkbox"/> 2021-100028	Tes***y 4 (ECNA I, T.0330)	Virginia, Fairfax	4/14/2021	4/14/2021	HEARTLAND CAPITAL CORPORATION, ECNA I, T.

- 1** START NEW ASSESSMENT
- 2** NEW ASSIGNMENTS RECEIVED
- 3** MY DESK
- 4** MY PARTNER'S DESK
- 5** WITH AGENCY
- 6** TYPE & PROGRAM
- 7** USDA
- 8** NON-USDA OR HUD
- 9** PINNED
- 10** STATUS
- 11** OPTIONS

NEW CNA

▼NEW ASSIGNMENTS RECEIVED (1) **1** Start New Assessment Refresh Options ▾

Assessment ID	Property Name	Location	Last Modified Date	Sent/Status Date	Partner
					Housing

1. START NEW ASSESSMENT

Click on this button to create a new assessment. The CNA will not be created until you fill out and save the CNA Summary section.

DASHBOARD SECTIONS

▼NEW ASSIGNMENTS RECEIVED (1) **2** Start New Assessment Refresh Options ▾

Assessment ID	Property Name	Location	Last Modified Date	Sent/Status Date	Partner
					Housing Authority of the Town of

2. NEW ASSIGNMENTS RECEIVED

This contains CNAs that have been sent to your organization by a partner organization and have not been claimed by anyone within your organization. Once a CNA is edited by a member of your organization, it will appear in that person's My Desk section. This section appears for Preparers only.

▼MY DESK (7) **3**

Assessment ID	Property Name	Location	Last Modified Date	Sent/Status Date	Partner
<input type="checkbox"/> 2021-100044	Bea***ers (LAST - MCNT11.F. 0362)	Texas, Paris	4/29/2021		ALABAMA TEACHERS RETIREMENT SYSTEM, ECNA V.T.

3. MY DESK

This contains CNAs that are currently in your possession. CNAs are in your possession if you create a new CNA or make any edit on a CNA within your organization.

▼MY PARTNER'S DESK (8) **4**

Assessment ID	Property Name	Location	Last Modified Date	Sent/Status Date	Partner
<input type="checkbox"/> 2021-100031	Tes***y 4 (ECNA I.T.0330) (ECNA I.T.0030)	Virginia, Fairfax	4/14/2021		HEARTLAND CAPITAL CORPORATION, ECNA I.T.

4. MY PARTNER'S DESK

This contains CNAs that are currently possessed by your partner organization. A partnership is established when a CNA is sent from the Submitter to a partner organization selected from the "Options" menu to be the Preparer. See [Chapter 3: Options](#) for how to send a CNA to a partner organization.

▼WITH AGENCY (3) **5**

Assessment ID	Property Name	Location	Last Modified Date	Sent/Status Date	Partner
<input type="checkbox"/> 2021-100026	Tes***y 4 (ECNA I.T.0330)	Virginia, Fairfax	4/14/2021	4/14/2021	HEARTLAND CAPITAL CORPORATION, ECNA I.T.

5. WITH AGENCY

This contains CNAs that have been submitted to the Approving Agency. See [Chapter 3: Options](#) for how to submit a CNA.

DASHBOARD FILTERS

Clicking on a filter button will narrow down the dashboard results and only display CNAs that match the filter.

6 TYPE & PROGRAM

Asset Development	22
223(a)(7) Limited Refi	1
223(f) Ref-Acq	11

2021-100034 Green Pasture Virginia, Arlington 4/28/2021

6. TYPE & PROGRAM

These options will filter the results based on the type of CNA (Asset Development/Asset Recapitalization/Asset Management) or the program for which the CNA is being prepared. This only contains CNAs with HUD as the Approving Agency.

7 USDA

NON USDA OR HUD

PINNED

2021-100043 Test Misc Texas, Paris 4/29/

7. USDA

This option filters the results based on the type of USDA CNA.

8 USDA

NON USDA OR HUD

PINNED

2021-100043 Test Misc Texas, Paris 4/29/

8. NON-USDA OR HUD

This option filters the results for CNAs that do not have HUD or USDA as the Approving Agency.

9 PINNED

Pinned	4
Unpinned	15

2021-100043 Test Misc Texas, Paris 4/29/

▼ MY PARTNER'S DESK (8)

9. PINNED

This option filters the results based on whether or not a CNA is pinned.

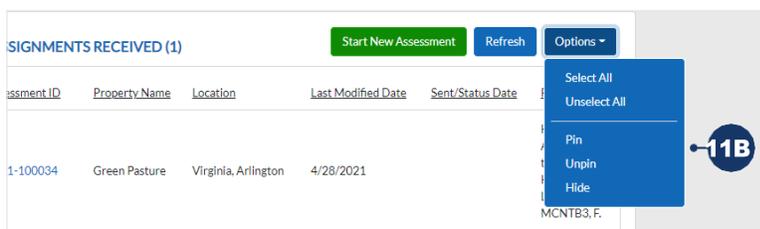
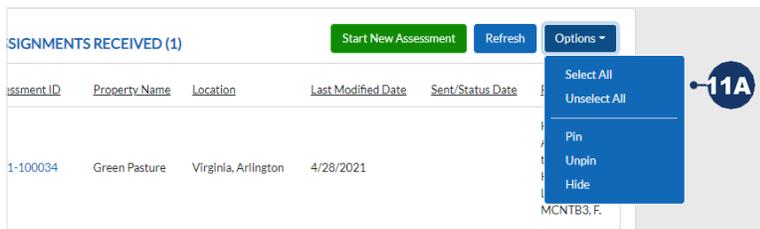


10. STATUS

This filters the results based on the status of the CNA. CNAs can have the following statuses:

- **Draft – Unclaimed** – The CNA was sent from a partner but has not been assigned or claimed.
- **Draft – On My Desk** – The CNA has not been submitted and has not been sent to a partner.
- **Draft – On Partner's Desk** – The CNA has been sent to a partner but has not yet been submitted.
- **Submitted** – The CNA has been officially submitted to the Approving Agency for review.
- **Returned** – The CNA has been returned by the Approving Agency.
- **Approved** – The CNA has been approved by the Approving Agency.

OPTIONS



11. OPTIONS

11A. SELECT CNAs

To Select a CNA, click the checkbox next to a CNA. To select all CNAs, click “Options,” then “Select All.” To uncheck all checked CNAs, click “Options,” then “Unselect All.”

11B. PIN CNAs

Pinning a CNA will keep it located on the Home Screen and will make it easier to locate in the future.

To pin one or multiple CNAs, select the CNAs, click “Options” then “Pin.” A pin (📌) icon will appear next to all pinned CNAs.

To unpin CNAs, select the CNAs, click “Options,” then “Unpin.”

SIGNMENTS RECEIVED (1) Start New Assessment Refresh Options

Assessment ID	Property Name	Location	Last Modified Date	Sent/Status Date
1-100034	Green Pasture	Virginia, Arlington	4/28/2021	

MCNTB3, F.

11C

11C. HIDE CNAs

- Hiding a CNA will remove the CNA from the Home Screen. Hidden CNAs will still be accessible from the CNA Search and can be added back to the Home Screen.
- To hide one or multiple CNAs, select the CNAs, click “Options” then “Hide.”

A stylized illustration of a cityscape on the left side of the page. It features several buildings of varying heights and colors (green, blue, white) with grid patterns representing windows. There are also trees and bushes in shades of green and blue. The background is a solid dark green.

CHAPTER 2: SEARCH

OVERVIEW

If you need to locate CNAs your organization is working on that do not appear under My CNAs, go to the Search tab. The Search tab shows all CNAs related to your organization and has additional filters to help narrow down the results.

Each CNA displays high-level information that you can use to identify the assessment, including:

- Assessment ID
- Property Name
- Location
- Last Date Modified — This is the date the CNA was last edited.
- Sent/Status Date — This is the date the CNA was submitted or changed status.
- Partner — This is the name of your partner organization and its individual member who last edited the CNA.

SEARCH

1 SEARCH RESULTS

2 SEARCH YOUR ORGANIZATION/ AGENCY CNAs

3 TYPE & PROGRAM

4 USDA

5 NON-USDA OR HUD

6 PINNED

7 STATUS

8 OPTIONS

2A Assessment ID

8A Select All

8B Unselect All

8C Pin, Unpin, Unhide

Assessment ID	Property Name	Location	Last Modified Date	Sent/Status Date	Staff	Part
2019-100002	Pin***l's	Maryland, Baltimore	3/22/2021	Draft	LAST-MCNT11, F.	-
2019-100021	The***nds	New Jersey, Princeton	4/28/2021	Draft	LAST-MCNT11, F.	-
2020-100044	Dum***ore	New York, New York	3/18/2021	3/13/2020 (Draft)	LAST-MCNT11, F.	HEARTLAND CAPITAL CORPORATION, ECNA I.T.
2020-100119	Don***est	Vermont, Vancouver	2/24/2021	Draft	LAST-MCNT11, F.	-
2020-100330	Tes***y 4	Virginia, Fairfax	3/18/2021	3/18/2021 (Returned)	LAST-MCNT11, F.	HEARTLAND CAPITAL CORPORATION, ECNA I.T.
2020-100362	Bea***ers	Texas, Paris	4/20/2021	Draft	LAST-MCNT11, F.	ALABAMA TEACHERS RETIREMENT SYSTEM, ECNA V.T.
2020-100363	Bea***on)	Texas, Paris	3/3/2021	Draft	LAST-MCNT11, F.	ALABAMA TEACHERS RETIREMENT SYSTEM, ECNA V.T.
2021-100016	ABC***DA)	Alaska, Faircity	3/12/2021	Draft	LAST-MCNT11, F.	-
2021-100000	Bea***64)	Texas, Paris	2/16/2021	Draft	LAST-MCNT11, F.	ALABAMA TEACHERS RETIREMENT SYSTEM, ECNA V.T.

- 1** SEARCH RESULTS
- 2** SEARCH YOUR ORGANIZATION/ AGENCY CNAs
- 3** TYPE & PROGRAM
- 4** USDA
- 5** NON-USDA OR HUD
- 6** PINNED
- 7** STATUS
- 8** OPTIONS

SEARCH

Assessment ID	Property Name	Location	Last Modified Date	Sent/Status Date	Staff	Partner
<input type="checkbox"/> 2019-100002	Pin***lls	Maryland, Baltimore	3/22/2021	Draft	LAST - MCNT11, F.	-

1. SEARCH RESULTS

This displays CNAs from your firm based on the keyword search and filters selected.

SEARCH FILTERS

Clicking on a filter button will narrow down the search to display only CNAs that match the filter.

2. SEARCH YOUR ORGANIZATION/ AGENCY CNAs

Use this filter to search through your firm's CNAs.

Assessment ID	Property Name	Location	Last Modified Date	Sent/Status Date
---------------	---------------	----------	--------------------	------------------

2A. SEARCH CRITERIA

Select which CNA field you would like to search by. This includes:

- All Assessments
- AMAS Number
- Approving Agency
- Assessment ID
- Date Range
- FHA Number
- Partner Name
- Property Name
- Property ID Number
- RAD PIC Number
- Staff Name
- State

Assessment ID	Property Name	Location	Last Modified Date	Sent/Status Date
---------------	---------------	----------	--------------------	------------------

2B. KEYWORD SEARCH

Type in a keyword. The system will search for CNAs containing this keyword in the specified data field.

<input type="checkbox"/> 2019-100021	The***nds	New Jersey, Princeton	4/28/2021	Draft
		New York		3/13/2020

3. TYPE & PROGRAM

Filter the results by CNA types or programs.

4

PPC/Loan Mod, Insured mtg 1

USDA

NON USDA OR HUD

None 1

<input type="checkbox"/>	2020-100362	Bea***ers	Texas, Paris	4/20/2021	Draft
--------------------------	-------------	-----------	--------------	-----------	-------

4. USDA

Filter the results by USDA types or programs.

5

PPC/Loan Mod, Insured mtg 1

USDA

NON USDA OR HUD

None 1

<input type="checkbox"/>	2020-100362	Bea***ers	Texas, Paris	4/20/2021	Draft
--------------------------	-------------	-----------	--------------	-----------	-------

5. NON-USDA OR HUD

Filter the results by non-USDA or -HUD programs.

6

NON USDA OR HUD

None 1

PINNED

Unpinned 24

<input type="checkbox"/>	2020-100362	Bea***ers	Texas, Paris	4/20/2021	Draft
<input type="checkbox"/>	2020-100363	Bea***on)	Texas, Paris	3/3/2021	Draft

6. PINNED

This option filters the results based on whether or not a CNA is pinned.

7

STATUS

Draft - On My Desk 14

Draft - On Partner's Desk 3

Draft - Unclaimed 1

Returned 3

Submitted 2

Under Review 1

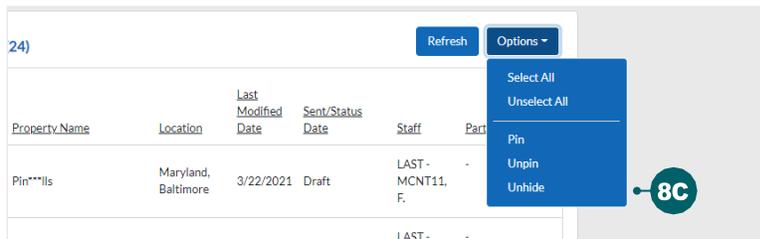
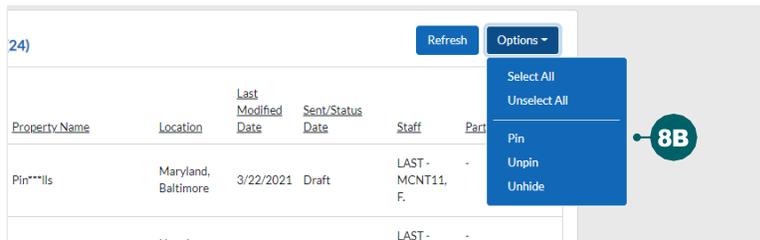
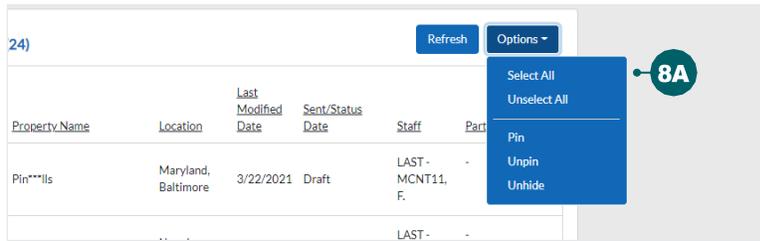
<input type="checkbox"/>	2020-100363	Bea***on)	Texas, Paris	3/3/2021	Draft
<input type="checkbox"/>	2021-100016	ABC***DA)	Alaska, Faircity	3/12/2021	Draft
<input type="checkbox"/>	2021-100000	Bea***64)	Texas, Paris	2/16/2021	Draft

7. STATUS

This filter shows the results based on the status of the CNA. CNAs can have the following statuses:

- **Draft – Unclaimed** – The CNA was sent from a partner but has not been assigned or claimed.
- **Draft – On My Desk** – The CNA has not been submitted and has not been sent to a partner.
- **Draft – On Partner's Desk** – The CNA has been sent to a partner but has not yet been submitted.
- **Submitted** – The CNA has been officially submitted to the Approving Agency for review.
- **Returned** – The CNA has been returned by the Approving Agency.
- **Approved** – The CNA has been approved by the Approving Agency.

OPTIONS



8. OPTIONS

8A. SELECT CNAs

To Select a CNA, click the checkbox next to a CNA. To select all CNAs, click “Options,” then “Select All.” To uncheck all checked CNAs, click “Options,” then “Unselect All.”

8B. PIN CNAs

Pinning a CNA will keep it located on the Home Screen and will make it easier to locate in the future.

To pin one or multiple CNAs, select the CNAs, click “Options,” then “Pin.” A pin (📌) icon will appear next to all pinned CNAs.

To unpin CNAs, select the CNAs, click “Options,” then “Unpin.”

8C. UNHIDE CNAs

Unhiding a CNA will make the CNA visible on the Home Screen, including CNAs that were previously hidden.

To unhide one or multiple CNAs, select the CNAs, click “Options,” then “Unhide.”

SECTION II: CNA INPUT SCREENS



Once a CNA is initiated (created), you can navigate to different data and information screens by using the navigation sidebar tabs. Preparers and Submitters enter all of the information required on each of the screens listed to prepare the CNA for submission.



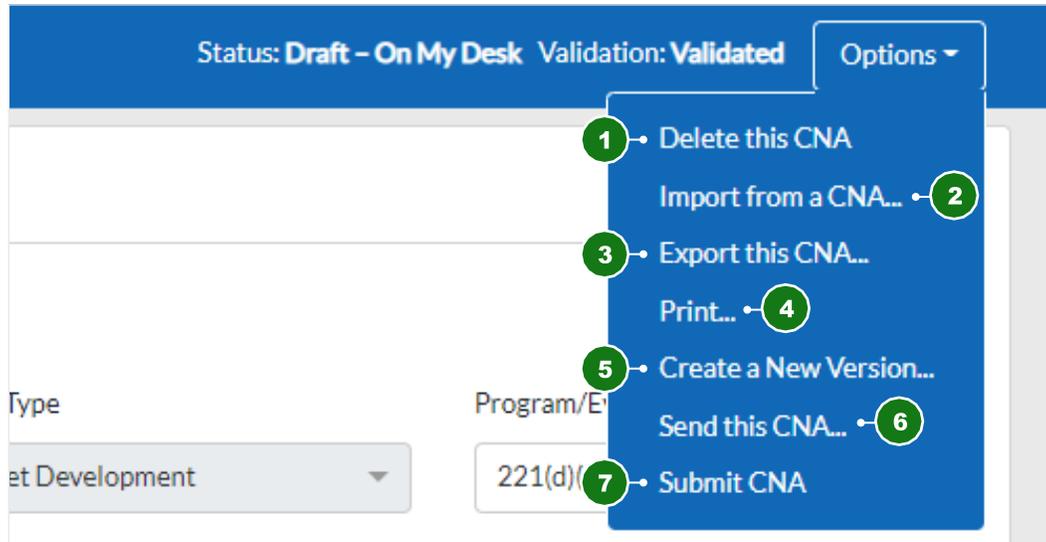
CHAPTER 3: OPTIONS

OVERVIEW

Use the “Options” menu at the top of a CNA to complete the following actions:

- Delete CNA
- Import data from an existing CNA
- Export data from CNA
- Create a new version of the CNA
- Send the CNA to a partner
- Submit the CNA

INSTRUCTIONS ON ENTERING DATA



- 1** DELETE THIS CNA
- 2** IMPORT DATA FROM AN EXISTING CNA
- 3** EXPORT DATA FROM CNA
- 4** PRINT
- 5** CREATE A NEW VERSION OF THE CNA
- 6** SEND THE CNA TO A PARTNER FIRM
- 7** SUBMIT THE CNA

Delete CNA ✕

Are you sure you want to delete this CNA?

1. DELETE THIS CNA

Click “Delete this CNA” to delete a CNA. After clicking, a confirmation screen will appear. Click “Cancel” or “Confirm.”

Note: Only the Submitter organization that initiated the CNA can delete it while having possession of it. This action will delete the CNA from the partner’s Dashboard also. Deleting a CNA is irreversible.

Import Data from Existing Assessment Record ✕

Select an assessment and which sets of data you would like to import to this assessment.

Select the assessment to import from:

2B Select Search Type...

Agency	Assessment ID	Property Name	Location
HUD	2022-100027	MA Testing	Alabama, Winchester
HUD	2022-100028	test	California, Winchester
HUD	2022-100029	MA Testing (LAST - MCNT11, F.0027)	Alabama, Winchester
HUD	2022-100025	New Property	Virginia, Fairfax
HUD	2022-100034	smoke test 2	Alabama, Las Vegas
HUD	2022-100023	UAT 1 (LAST - MCNT11, F.0018)	Virginia, Winchester
HUD	2022-100020	Ignore_HUD Testing	District of Columbia, Washington D.C.

2C

2D Select the data to import:

- Participants
- Sites
- Unit Types
- Buildings
- Units & Common Spaces
- Utility Types
- Units Inspected
- Components
- Alternatives
- Narratives
- Attachments

Select All

2E

2. IMPORT DATA FROM AN EXISTING CNA

You can import data from an existing CNA into the current CNA. You can choose to import data from selected sections.

Note: Importing data from a CNA will add to the existing data within a section. Existing data will not be overwritten.

2A. Click “Import from a CNA” and the import screen will appear.

2B. The screen will list all the CNAs you can import from. You can search for a CNA by entering the criteria.

2C. Click on the CNA you would like to import data from.

2D. Click the check box next to the section(s) you would like to import data from. These include:

- Participants
- Sites
- Unit Types
- Buildings
- Units & Common Spaces
- Utility Types & Rates
- Units Inspected
- Components
- Alternatives
- Narratives
- Attachments

2E. Click “Import Data.”

Export Data
Select the data to download. Your export will be in Excel format.

Assessment Entry Data:

- CNA Summary
- Assessment Scope
- Participants
- Sites
- Unit Types
- Buildings
- Units & Common Spaces
- Parking
- Utility Types & Rates
- Units Inspected
- Components, Alts & Recs
- Repair/Replace Decisions
- Financial Factors

Select All

Validation Data:

- Flags
- Estimate Period Recap
- Repair Needs
- Future Needs
- Financial Schedule

Select All

Cancel Export

3. EXPORT DATA FROM CNA

Click “Export CNA” to export data from selected sections. Check the section(s) that you would like to export. If you want to export all data, check “Select All.” Next, click “Export.”

- Data is exported in an Excel format.
- Each section appears as a different tab in the Excel file.
- Each data field appears on a separate column within a tab.
- Each row represents a different piece of data. For example, on the Buildings tab, each row represents data for a specific building.

Sample Property 100 - User Guide
Washington, DC

Property ID: 800336699
FHA #: 053-11346

Status: Draft - On My Desk Validation: Validation Needed

CNA SUMMARY

Is this CNA prepared for a HUD or USDA property or program?

Choose CNA Type

Approving Agency: HUD
CNA Type: Asset Development
Program/Event: 2230) Ref-Acq

Print...

4. PRINT

Click “Print” to print the current screen displayed of the CNA.

Create New Version - Please select

Would you like to Create New Version with attachments?

CNA Type: Asset Recapitalization
Program/Event: RAD - PH Rehab

No Attachments Copy Attachments (slower)

5. CREATE A NEW VERSION OF THE CNA

Click “Create a New Version” to duplicate the CNA. This will create a separate CNA with a new Assessment ID and it will appear in “My Desk.”

5A. BY THE SUBMITTER

In this new version, users will have the option to change the Program/Event, and CNA type as designated in the original CNA that cannot be changed.

Create New Version - Please select

Would you like to Create New Version with attachments?

CNA Type: Asset Recapitalization
Program/Event: M2M

Partner Organization (* required)

No Attachments Copy Attachments (slower)

5B. BY THE PREPARER PARTNER

In this new version, users will have the option to change the Program/Event and Partner Organization and CNA type as designated in the original CNA that cannot be changed. When the Program/Event is updated, the user must also select a Partner Organization.

Note: Both the Submitter and the Preparer partners can create a new version, regardless of who is in possession. When a new version of a CNA is created by either partner, that CNA will appear in both partners' Dashboards. When the partner organization has been changed, the partner may not see the new version of the CNA on the Dashboard. Use the Search function to locate the new assessment.

If a CNA is created using the incorrect CNA type, rather than using "Create New Version," start a new CNA and use the "Import from CNA" feature to quickly copy the data from the existing CNA (the one with the incorrect CNA type) into the new one. You can also use the "Copy/Paste" feature available to supplement the "Import" feature.

Send To... 6

To transfer possession of this CNA, choose a recipient and follow the directions below.

Choose Partner: Select... 6A

Progress
Draft - Delegated

Validation
Not Validated

Notice: Once a partner is selected, the selection cannot be changed. The originating firm may initiate a new CNA record and may delete the existing record if not yet submitted to agency.

Cancel Send CNA 6B

6. SEND THE CNA TO A PARTNER FIRM

Click "Send this CNA" to send the CNA to your partner firm.

6A. First, select the partner firm to send the CNA to.

Note: Once a partner firm is selected it cannot be changed. If you send this CNA or select "Create New Version," in the future, the partner firm will be automatically selected.

6B. Next, click "Send CNA."

7. SUBMIT THE CNA

Click “Submit CNA” to submit a completed CNA to the Approving Agency. This can only be done if there are no severe flags. All warning flags should be addressed with comments.

Note: The submitted version of a CNA cannot be edited. If the agency returns a submitted CNA, the returned CNA cannot be edited either. “Create New Version” should be selected, as the new version may be edited to address the reasons for which the agency returned the CNA.

Submit CNA ×

Assessment ID 2020-000141 - HUD Asset Development 221(d)(4)

Agency	Validation
U.S. Dept of Housing and Urban Development	Validated with Severe Flags

Cannot submit for the following reason(s):
The Validation resulted in severe flags.
All 'Required On Submit' fields are not complete.

Notice: Once this CNA has been submitted to an Agency, you and your partner will no longer be able to edit the CNA unless and until the Agency returns the CNA to you.

By submitting this Capital Needs Assessment I am certifying it in accordance with Appendix 5G of the MAP Guide at Section VII, subsection D, paragraph 3 and incorporating by reference the certification language required therein. I have read and I understand the referenced certification language.

7



CHAPTER 4: CNA SUMMARY

OVERVIEW

The CNA summary screen is where users define the basic scope of the CNA, including the Approving Agency, CNA type, and program/event.

The selection of Approving Agency, CNA type, and program/event will determine which information will be required in the assessment. Certain data fields will appear or be hidden accordingly.

INSTRUCTIONS ON ENTERING DATA

Sample Property 100 - User Guide Property ID: 800336699 Status: Draft - On My Desk Validation: Validation Needed Options ▾
Washington, DC FHA#: 053-11346

Assessment Entry Validation

Property Info

- CNA Summary
- Assessment Scope
- Participants
- Utility Types & Rates

Design & Construction

- Sites
- Buildings
- Unit Types
- Units & Common Spaces
- Parking
- Components, Alts & Recs
- Repair Needs Analysis

Processing Info

- Units Inspected
- Narratives & Attachments
- Financial Factors
- Repair Replace Decisions

Energy

- Current
- Historical

CNA SUMMARY

Is this CNA prepared for a HUD or USDA property or program?

Choose CNA Type 1

Approving Agency 1A CNA Type 1B Program/Event 1C

HUD Asset Development 223(f) Refi-Acq

FHA # (Format ###-####) Property ID (Format 0#####) Associated Agency

053-11346 800336699 HUD × ▾

Property Information 2 **Property Contact**

Enter additional participant info in the Participants section

Property Name Contact Role Firm Name

Sample Property 100 - User Guide Current Owner × ▾ Owner Firm

Property Street Address Contact Name Firm Street Address

Sample Street 1 Jane Doe Sample Street 2

City Firm Contact Phone City

Washington (888)-777-1111 Washington

State Zip Firm Contact Email State Zip

DC - District ... × ▾ 20001 jd@test.com DC - District ... × ▾ 20001

Will 50% or more of the residential units in this property be restricted to persons or heads of household aged 55+ or 62+? 3

Has this property ever been, is it now, or will it be Federally Assisted? 4

Is this CNA inclusive of GRRP? 5

Is this CNA inclusive of Green MIP? 6

1 CNA SUMMARY INFORMATION

4 FEDERALLY ASSISTED INDICATOR

2 PROPERTY IDENTIFIER

5 IS THIS CNA INCLUSIVE OF GRRP?

3 FAMILY/ELDERLY INDICATOR

6 IS THIS CNA INCLUSIVE OF GREEN MIP?

1. CNA SUMMARY INFORMATION

1A. APPROVING AGENCY

This is the agency to which the CNA will be submitted for approval.

1B. CNA TYPE

USDA and HUD each have certain CNA types. Select the one that fits the purpose for the CNA.

1C. PROGRAM/EVENT

For HUD CNA types, identify the specific program or event for which the CNA will be used.

2. PROPERTY IDENTIFIER

The following data fields will appear depending on your previous selections.



PROPERTY ID

Enter the iREMS property ID number (i.e., the number assigned by HUD's asset management system to each asset in the portfolio). If the property is not already insured or assisted by HUD, this is not required.

USDA AMAS ID

Enter the Automated Multi-Family Accounting System (AMAS) ID number. This is required for USDA submissions.

HUD FHA

Enter the Federal Housing Administration (FHA) loan application number. This is required for HUD FHA insurance programs.

RAD-PIC

Enter the Rental Assistance Demonstration (RAD) Public and Indian Housing Information Center (PIC) number.

* Within CNA e-Tool, displayed data entry field(s) may vary depending on the user's selection of CNA type and program or event type. Due to these dependencies, users may see screens that look different from those shown in this Guide. To alert users about these possible variations, fields with dependencies are marked with an asterisk. This affects a relatively small percentage of the fields. For a complete listing of dependencies, see the CNA Dependency User Path Matrix located at the end of this Guide.

Current	<input type="radio"/>	Will 50% or more of the residential units in this property be restricted to persons or heads of household aged 55+ or 62+?	3	No	Yes
Historical	<input type="radio"/>				

* 3. FAMILY/ELDERLY INDICATOR

If 50% or more of the units are restricted to occupancy by persons ages 55+ or disabled adults, select “Yes.” Otherwise, select “No.” See [Considerations for the Family or Elderly Indicator](#) for more information.

Has this property ever been, is it now, or will it be Federally Assisted?		4	No	Yes
---	--	---	----	-----

* 4. FEDERALLY ASSISTED INDICATOR

Section 504 of the Rehabilitation Act of 1973 applies to recipients of “federal financial assistance.” Determine whether the property is federally assisted and select “Yes” or “No.” This field only appears for HUD Asset Development and Asset Management CNAs for properties with insured loans. See [Considerations for Federally Assisted Indicator](#) for more information.

Is this CNA inclusive of GRRP?		5	No	Yes
--------------------------------	--	---	----	-----

5. GRRP

Select “Yes” or “No” to indicate if this CNA is being created to satisfy the requirements of HUD’s Green and Resilient Retrofit Program (GRRP).

Is this CNA inclusive of Green MIP?		6	No	Yes
-------------------------------------	--	---	----	-----

6. GREEN MIP

Select “Yes” or “No” to indicate if this CNA is being created to satisfy the requirements of a green mortgage insurance premium (MIP).

* Within CNA e-Tool, displayed data entry field(s) may vary depending on the user’s selection of CNA type and program or event type. Due to these dependencies, users may see screens that look different from those shown in this Guide. To alert users about these possible variations, fields with dependencies are marked with an asterisk. This affects a relatively small percentage of the fields. For a complete listing of dependencies, see the CNA Dependency User Path Matrix located at the end of this Guide.

MORE INFORMATION

IS THIS CNA PREPARED FOR A HUD OR USDA PROPERTY OR PROGRAM?

CNA SUMMARY

Is this CNA prepared for a HUD or USDA property or program?

If you are logged into CNA e-Tool as a Submitter, the first question you will have to answer when you initiate a new CNA is: “Is this CNA prepared for a HUD or USDA program or property?” If you select “No” to this question, you will create a CNA that you cannot send or submit to anyone. However, all the data entry fields and screens will be fully editable by you. Initiating this type of CNA is suitable for creating a template CNA as a library of standard data that can be imported or copied/pasted into other CNAs.

CONSIDERATIONS FOR THE FAMILY OR ELDERLY INDICATOR

The purpose of this field is to indicate whether the CNA should use the Elderly Estimated Useful Life (EUL) table (in which items such as carpets and appliances have longer useful lives) versus the Family EUL table. The indicator states whether the property is designated or restricted for occupancy by age (“Elderly”) or not restricted (“Family”). A property that is not restricted but happens to have an elderly clientele is still a “Family” property.

CONSIDERATIONS FOR FEDERALLY ASSISTED INDICATOR

If “Yes” is selected for the *Federally Assisted Indicator*, it indicates that:

- The property is or was a recipient of “federal financial assistance,” and
- The property is subject to Section 504.

Note: Be aware that the phrase “federal financial assistance” is used in these materials as a technical term. HUD and USDA each have published specific definitions of this term. Each time this term is used below, it refers to the specific definition the agency has published.

Note that if the property ever received “federal financial assistance” (in any amount, for any unit) you will select “Yes,” even if the assistance was provided long ago, and even if the property no longer has the loan or subsidy or grant that was originally attached to the “federal financial assistance.”

KEY REQUIREMENTS FOR HUD PROPERTIES

HUD’s regulations implementing Section 504 for properties receiving “federal financial assistance” became effective on July 11, 1988. Any property that received “federal financial assistance” (which is distinct from being built) after that date must fully comply with Uniform Federal Accessibility Standards (UFAS) and provide a set-aside of 5% of units that are accessible for mobility-impaired persons, and 2% of units that are accessible for sensory-impaired persons. A single unit may not count for both set-asides.

Properties that received “federal financial assistance” before that date were obligated to create and implement a transition plan to achieve compliance as and when repairs, replacements, and alterations were made.

Given the number of years since the regulation went into effect, HUD now assumes all assisted properties should be in full compliance, barring proof that compliance could not be achieved without removing or altering a structural bearing wall or imposing an undue financial or administrative burden on the owner.

See the MAP Guide for a complete discussion of HUD’s accessibility requirements for insured multifamily properties.

HUD PROGRAMS THAT CONSTITUTE “FEDERAL FINANCIAL ASSISTANCE”

The following is not an all-inclusive list. See [24 CFR Part 8](#) for the full text of HUD’s regulations implementing Section 504 for HUD programs.

- Project-based Section 8
- Other project-based rental assistance such as project-based vouchers, project-based certificates, Rental Assistance Program (RAP), Rent Supplement, Moderate Rehabilitation (Mod Rehab), Project Assistance Contract (PAC), and Project Rental Assistance Contract (PRAC)
- Section 202 development funding
- Section 811 development funding
- Section 221(d)(3) Below Market Interest Rate (BMIR) financing
- Section 236 financing
- Community Development Block Grant (CDBG) funding
- Home Investment Partnerships (HOME) Program funding
- Housing Opportunities for Persons with AIDS (HOPWA) funding
- Any contribution of federal land or services
- Any funding from HUD under the American Recovery and Reinvestment Act (ARRA) such as the Green Retrofit Program

USDA PROGRAMS THAT CONSTITUTE “FEDERAL FINANCIAL ASSISTANCE”

The following is not an all-inclusive list. See [7 CFR Part 15\(b\)](#) for the full text of USDA’s regulations implementing Section 504 for USDA programs.

- Section 514 Farm Labor Housing funding
- Section 515 Rental Housing funding
- Section 516 Farm Labor Housing funding
- Section 521 Rental Assistance
- Any contribution of federal land or services
- Any funding from USDA under the American Recovery and Reinvestment Act (ARRA)

FEDERAL PROGRAMS THAT DO NOT CONSTITUTE “FEDERAL FINANCIAL ASSISTANCE”

The following programs do **not** constitute “federal financial assistance.”

- The Low-Income Housing Tax Credit (LIHTC) program, except for the Tax Credit Assistance Program (TCAP) and Exchange programs, which **do** constitute “federal financial assistance”
- The Historic Preservation Tax Credit program
- The New Markets Tax Credit program
- FHA mortgage insurance, unless an interest subsidy was provided
- The USDA Section 538 loan guarantee program, unless an interest subsidy was provided
- There is a difference between HUD and USDA rules on timing and the particulars of applying UFAS standards to any assisted housing.

HUD REQUIREMENTS FOR SCOPE OF WORK

Per the MAP Guide, Appendix A.5.7, CNAs of existing buildings prepared for HUD must at a minimum meet the requirements of ASTM E 2018-08 for the preparation of needs assessments.



CHAPTER 5: ASSESSMENT SCOPE

OVERVIEW

Use the Assessment Scope screen to enter the following information that will define the scope and purpose of the CNA.

- Date of site visits
- Number of vacant units at the property and the minimum percentage of units that must be inspected
- Whether an ASHRAE Level II Energy Audit has been completed and, if so, by whom
- Whether any additional testing or inspection was completed or is recommended, and an explanation

INSTRUCTIONS ON ENTERING DATA

Sample Property 100 - User Guide Washington, DC Property ID 800336699 FHA # 053-11346 Status: Draft - On My Desk Validation: Validation Needed Options

Assessment Entry Validation

Property Info

- CNA Summary
- Assessment Scope
- Participants
- Utility Types & Rates

Design & Construction

- Sites
- Buildings
- Unit Types
- Units & Common Spaces
- Parking
- Components, Alts & Recs
- Repair Needs Analysis

Processing Info

- Units Inspected
- Narratives & Attachments
- Financial Factors
- Repair Replace Decisions

Energy

- Current
- Historical

ASSESSMENT SCOPE

Is the property located within a Metropolitan Statistical Area (MSA) designated by the US Census? **1**

What is the date that the existing property was inspected, or if to be built, what is the estimated date of construction completion. (i.e., the CNA Effective Date.) **2** 2022-12-22

What is the number of vacant units reported at the time of the site visit? **3** 2

What is the required percentage of units sampled? **4** 25.00 %

Were intrusive examinations or tests conducted?

Test Descriptions and Third Party Name/Credentials

Sewer - Test Sewer Repair Company
Electrical - Test Electric LLC
Radon - Test Radon Consulting

Was an ASHRAE Level II or III Energy Audit and/or an application for Green Building Certification prepared? **5**

Enter Energy Professional's Firm & Personal Name(s) and Credentials

Sample Energy Professionals, LLC

Seismic - SXS 0.035 Seismic - SX1 0.028

What is National Risk Index (NRI) Score for the subject property? **6**

Are the **Very High** or **Relatively High** risk categories identified by the NRI Score?

Based on the FEMA FIRM reviewed for the subject property, what Zone is the property located in? **7** Select...

Please upload the reviewed FEMA FIRM in the "Narratives and Attachments"

1 MSA

2 DATE OF INSPECTION/
CONSTRUCTION COMPLETION

3 NUMBER OF VACANT UNITS

4 REQUIRED PERCENTAGE OF
UNITS INSPECTED

5 ASHRAE ENERGY AUDIT/
GREEN BUILDING CERTIFICATION

6 NATIONAL RISK INDEX (NRI) SCORE

7 FEMA FIRM ZONE

Sample Property 100 - User Guide Property ID: 8003356999 Status: Draft - On My Desk Validation: Validation Needed Options

Washington, DC FHA #: 053-11346

Assessment Entry Validation

Property Info

CNA Summary

Assessment Scope

1 Is the property located within a Metropolitan Statistical Area (MSA) designated by the US Census? No Yes

Participants

Utility Types & Rates

Design & Construction

What is the date that the existing property was inspected, or if to be built, what is the estimated date of construction completion, (i.e., the CNA Effective Date.) 2022-12-22 **2**

Design & Construction

Sites

What is the number of vacant units reported at the time of the site visit? **3** 2

Buildings

Unit Types

What is the required percentage of units sampled? **4** 25.00 %



1. MSA

“MSA” means that the property is located in a Metropolitan Statistical Area, as defined by the U.S. Census Bureau.

2. DATE OF INSPECTION/ CONSTRUCTION COMPLETION

Enter the date the onsite inspection occurred. For new construction and properties undergoing substantial rehabilitation, enter the future anticipated date of substantial completion.



3. NUMBER OF VACANT UNITS

This number can be verified by reviewing the current rent rolls and discussion with the onsite manager. The Preparer should comment on any physical evidence that suggests that actual vacancies differ from what was reported. The term “vacant” includes units offline due to major rehabilitation needs and model units.



4. REQUIRED PERCENTAGE OF UNITS INSPECTED

This value is based on the policy guidance published by the Approving Agency of the relevant CNA type and selected program. Check with the Approving Agency’s guidance — for example, for Asset Development loans, refer to the Multifamily Accelerated Processing (MAP) Guide.

* Within CNA e-Tool, displayed data entry field(s) may vary depending on the user’s selection of CNA type and program or event type. Due to these dependencies, users may see screens that look different from those shown in this Guide. To alert users about these possible variations, fields with dependencies are marked with an asterisk. This affects a relatively small percentage of the fields. For a complete listing of dependencies, see the CNA Dependency User Path Matrix located at the end of this Guide.

Processing Info

- Units Inspected
- Narratives & Attachments
- Financial Factors
- Repair/Replace Decisions

Was an ASHRAE Level II or III Energy Audit and/or an application for Green Building Certification prepared? **5**

Enter Energy Professional's Firm & Personal Name(s) and Credentials:

Sample Energy Professionals, LLC

5. ASHRAE ENERGY AUDIT/GREEN BUILDING CERTIFICATIONS

Select “Yes” or “No” to indicate if an ASHRAE Level II or III Energy Audit and/or an application for Green Building Certification was prepared with this CNA. If yes, enter the firm name, personal name, and credentials of the Energy Professional who conducted the Audit.

What is National Risk Index (NRI) Score for the subject property? **6**

Are the **Very High** or **Relatively High** risk categories identified by the NRI Score?

6. NATIONAL RISK INDEX (NRI) SCORE

Enter the National Risk Index (NRI) Score for the subject property and indicate if the score identifies a Very High or Relatively High-risk category. The NRI provides relative Risk Index percentiles and ratings based on data for Expected Annual Loss due to natural hazards, Social Vulnerability, and Community Resilience. You can identify the NRI score and associated risk category for the subject property on the [interactive National Risk Index map](#).

7 Based on the FEMA FIRM reviewed for the subject property, what Zone is the property located in?

Please upload the reviewed FEMA FIRM in the "Narratives and Attachments"

7. FEMA FIRM ZONE

Review the FEMA FIRM for the subject property and select the Flood Zone the property is in from the dropdown menu. The FEMA FIRM will need to be uploaded in the [Narratives and Attachments](#) section.

MORE INFORMATION

OBTAINING AND ENTERING SEISMIC DATA

To improve seismic safety in older buildings and to preserve existing housing, Preparers must determine whether seismic risks exceed prescribed thresholds in accordance with the relevant standards published by the American Society of Civil Engineers (ASCE) and its affiliate, the Structural Engineering Institute (ASCE/SEI). The thresholds are values for indicators called “S_xs” and “S_{x1}.” If thresholds are exceeded, then further research is required in accordance with the standard.

STANDARDS AND EXCEPTIONS

The relevant standard is ASCE 41-17, Seismic Evaluation and Retrofit of Existing Buildings. Many buildings are exempt from the seismic hazard and building performance analysis required by ASCE 41-17. The intent of the two seismic indicators is to assist Preparers in identifying properties that are exempt.

Exemptions include the following:

- Any single-story, wood, or steel-frame building with a total building area equal to or less than 3,000 square feet
- Any single-story accessory building (i.e., no dwellings in the structure)
- Any detached or semi-detached dwelling structure where the Design Earthquake Spectral Response Acceleration Parameter S_xs, BSE-1N is less than .400 g
- Any building with both Design Earthquake Spectral Response Acceleration Parameters
 - S_xs, BSE-1N less than .330 g
 - S_{x1}, BSE-1N less than .133 g

FINDING THE VALUES FOR S_xs AND S_{x1}

Previously, the values for S_xs and S_{x1} could be seen as provided output from a Design Maps Summary Report obtained from the U.S. Geological Survey at <https://earthquake.usgs.gov/hazards/designmaps/usdesign.php>. Per the USGS website, “Due to insufficient resources and the recent development of similar web tools by third parties, the USGS has streamlined this U.S. Seismic Design Maps web application.”

Although the USGS website no longer provides Design Maps Summary Reports, other websites provide Seismic Design Maps, such as the Office of Statewide Health Planning and Development (OSHPD) (<https://seismicmaps.org/>).

“BENCHMARK BUILDINGS” DO NOT REQUIRE SEISMIC HAZARD ANALYSIS

Buildings that are not exempt require a seismic hazard analysis prepared in accordance with ASCE 41-17 or a determination that the building is a benchmark building as defined by ASCE 41-17.

A *benchmark building* is an existing building originally built to or later retrofitted to an identified design code that equals or exceeds the standards defined by ASCE 41-17. The determination that the building is a benchmark building or, if not, the preparation of a seismic hazard analysis should be by a civil or structural engineer familiar with lateral force design.

CONTENTS OF HAZARD ANALYSIS

The hazard analysis should include an examination of the structure for continuity, ductility, and resistance to lateral forces. The analysis shall assume a building performance objective of *life safety* as defined by ASCE 41-17.

MITIGATION OF SEISMIC HAZARDS

Mitigation shall be required to meet minimum life safety requirements, meaning, in general, that for a design earthquake (i.e., a measure of the anticipated event), the building may be expected to avoid partial or total structural collapse, or damage to nonstructural components that is life threatening (e.g., damage leading to fire, blocked egress, release of hazardous materials).



CHAPTER 6: PARTICIPANTS

OVERVIEW

The participant information screen of the CNA is where users enter the contact information for all parties involved with the property. This may include the assessor, on-site property manager, contractors, maintenance supervisors, borrowers, owners, and lenders. Some of the participant information is mandatory and will be required before the screen can be saved.

INSTRUCTIONS ON ENTERING DATA

Sample Property 100 - User Guide Property ID: 800336699 Status: Draft - On My Desk Validation: Validation Needed Options

Washington, DC FHA # 053-11346

Assessment Entry Validation

Property Info

- CNA Summary
- Assessment Scope
- Participants**
- Utility Types & Rates

Design & Construction

- Sites
- Buildings
- Unit Types
- Units & Common Spaces
- Parking
- Components, Alts & Recs
- Repair Needs Analysis

Processing Info

- Units Inspected
- Narratives & Attachments
- Financial Factors
- Repair Replace Decisions

PARTICIPANTS (2)

1 Add New Participant

Firm Name	Contact Name	Phone	Email	Role
HEARTLAND CAPITAL CORPORATION	Antonia Gallo	(555)-555-1212	faulknerscholar@yahoo.com	Lender - Originator
Owner Firm	Jane Doe	(888)-777-1111	jd@test.com	Current Owner

Participant Information

Firm Name: Owner Firm Street Address: Sample Street 2

Contact Name: Jane Doe City: Washington

Phone: (888)-777-1111 State: DC - District ... X Zip: 20001

Email: jd@test.com Participant Role (most applicable): **4** Current Owner

3 Delete Participant Cancel Save Changes

1 ADDING A NEW PARTICIPANT

3 DELETE EXISTING PARTICIPANT
(IF A PARTICIPANT HAS ALREADY BEEN SAVED)

2 EDIT EXISTING PARTICIPANT

4 PARTICIPANT ROLE



1. ADDING A NEW PARTICIPANT

Click “Add New Participant” to enter a new participant into the participants table. Enter all fields in the Participation Information section prior to clicking “Save New Participant” at the bottom of the screen.



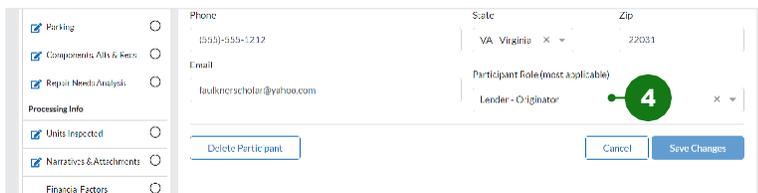
2. EDIT EXISTING PARTICIPANT

Click on the Participant that you would like to edit in the participants table. Make any necessary changes in the Participant Information section and click “Save Changes” at the bottom of the screen.



3. DELETE EXISTING PARTICIPANT

Click on the Participant that you would like to delete in the participants table. Click “Delete Participant” at the bottom of the screen.



4. PARTICIPANT ROLE

Select the role that best describes the Participant’s involvement in the assessment process.



CHAPTER 7: UTILITY TYPES AND RATES

OVERVIEW

The Utility Types and Rates section is where users enter information on the utilities used at the property. Utility types are pre-defined as either tenant-paid or common (owner-paid), and apply to the entire property (all sites and all buildings).

You can enter unit of measure and cost per unit for each utility type. When there are varying rates, multi-tiered rates, or multiple suppliers for a single utility type, enter the weighted average or estimated average rate for that utility type for the entire property.

INSTRUCTIONS ON ENTERING DATA

Sample Property 100 - User Guide
Washington, DC

Property ID
800336699
FHA # 053-11346

Status: Draft - On My Desk Validation: Validation Needed Options ▾

Assessment Entry Validation

Property Info

- CNA Summary
- Assessment Scope
- Participants
- Utility Types & Rates

Design & Construction

- Sites
- Buildings
- Unit Types
- Units & Common Spaces
- Parking
- Components, Alts & Recs
- Repair Needs Analysis

Processing Info

- Units Inspected
- Narratives & Attachments
- Financial Factors
- Repair Replace Decisions

Energy

- Current

UTILITY TYPE & RATES (8)

Utility Type (Paid By)	Unit	Utility Rate	Provider	As of Date
Common Electricity	KWH	0.10000	Sample Utility Company	2022-10-01
Common Natural Gas	BTUh	1.00000	Sample Gas Company	2022-10-01
Common Sewer	Gallons	0.02400	Sample Sewer Company	2022-10-01
Common Water	Gallons	0.02400	Sample Water Company	2022-10-01
Tenant Electricitv	KWH	0.10000	Sample Electric Companv	2022-10-01

Utility Information

Utility Type
Common Electricity

Consumption Unit
Kilowatt Hours

Utility Rate per Unit (\$x:xxxxx)
0.10000

Utility Provider Name
Sample Utility Company

As of Date
2022-10-01

Comments

Delete Utility Cancel Save Changes

1 ADDING A NEW UTILITY

4 UTILITY RATE PER UNIT

2 EDIT EXISTING UTILITY

5 COMMENTS

3 DELETE EXISTING UTILITY

Sample Property 100 - User Guide Property ID: 800336679 Status: Draft - On My Desk Validation: Validation Needed Options

Washington, DC FTA #: 053-11346

Assessment Entry Validation

Property Info

- CNA Summary
- Assessment Scope

Utility Type (Paid By)	Unit	Utility Rate	Provider	As of Date
Common Electricity	KWH	0.10000	Sample Utility Company	2022-10-01

1 Add New Utility

1. ADDING A NEW UTILITY

Click “Add New Utility” to enter a new utility into the utility table. Enter all fields in the Utility Information section prior to clicking “Save New Utility” at the bottom of the screen.

Assessment Entry Validation

Property Info

- CNA Summary
- Assessment Scope
- Participants

Utility Type (Paid By)	Unit	Utility Rate	Provider	As of Date
Common Electricity	KWH	0.10000	Sample Utility Company	2022-10-01
Common Natural Gas	BTU/h	1.00000	Sample Gas Company	2022-10-01

2 Add New Utility

2. EDIT EXISTING UTILITY

Click on the utility that you would like to edit in the utility type table. Make any necessary changes in the Utility Information section and click “Save Changes” at the bottom of the screen.

Financial Factors

Repair/Replace Decisions

Energy

- Current
- Historical

Delete Utility **3** Cancel Save Changes

3. DELETE EXISTING UTILITY

Click on the utility that you would like to delete. Click “Delete Utility” at the bottom of the screen.

Unit Types

Units & Common Sources

- Parking
- Components, Alts & Recs
- Repair Needs Analysis

Processing Info

- Units Inspected

Utility Information

Utility Type: Common Electricity

Consumption Unit: Kilowatt Hours

Utility Rate per Unit (\$6.00000) **4**

Utility Provider Name: Sample Utility Company

As of Date: 2022-10-01

4. UTILITY RATE PER UNIT

Enter the rate in dollars (to the nearest mill, or \$0.000) charged by the utility provider per unit of measure identified for this utility resource (e.g., kWh of electricity).

Note: Remember to take into account taxes, fees, surcharges, and other features of the utility company’s rate structure.

Processing Info

- Units Inspected
- Narratives & Attachments
- Financial Factors
- Repair/Replace Decisions

Energy

Utility Rate per Unit: 0.10000 2022-10-01

Comments

5

Delete Utility Cancel Save Changes

5. COMMENTS

Enter comments on any aspect of the configuration of utilities available and used at the property and the rates payable for these utilities. Comments may also explain averaging of rates or assumptions about minimums, surcharges, peak-hour rates, etc. Further explanations may be entered in the Narratives section.



CHAPTER 8: SITES

OVERVIEW

The Sites screen is where users enter all the building sites that are included in the CNA assessment. At least one site must be entered, and multiple sites can be entered. Sites must be entered before buildings may be added to the CNA, since buildings are assigned to sites. Multiple buildings may be assigned to a single site.

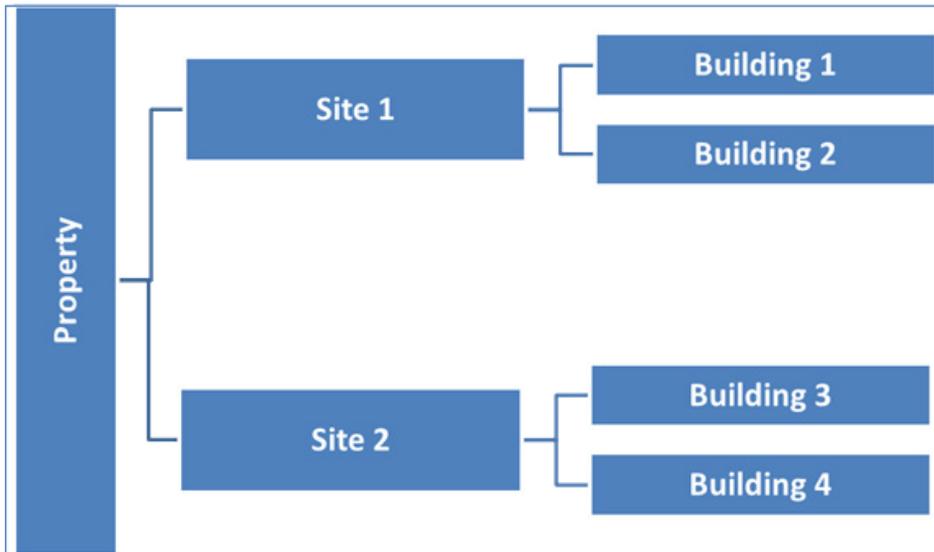
RELATIONSHIP BETWEEN PROPERTIES, SITES, AND BUILDINGS

There is a hierarchal relationship between properties, sites, and buildings:

- There is only one property per CNA.
 - A property contains one or more sites.
 - A site usually contains one or more buildings. However, occasionally an Owner may have acquired a site for ancillary purposes, such as parking.

Most CNAs will have only one site. However, there are rare situations where this is not the case. CNA e-Tool is capable of processing multiple sites with multiple buildings within a single CNA.

The image below illustrates a relationship where there are two sites, each with two buildings.



INSTRUCTIONS ON ENTERING DATA

Sample Property 100 - User Guide Property ID: 800336699 Status: Draft - On My Desk Validation: Validation Needed Options ▾
Washington, DC FHA # 053-11346

Assessment Entry Validation

Property Info

- CNA Summary
- Assessment Scope
- Participants
- Utility Types & Rates

Design & Construction

- Sites
- Buildings
- Unit Types
- Units & Common Spaces
- Parking
- Components, Alts & Rees
- Repair Needs Analysis

Processing Info

- Units Inspected

SITES (1)

1 Add New Site

Site Name	Street Address	City	Zip	Total Site Sq. Ft	Total Buildings
Sample Site 100	Sample Street	Washington	20001	670786	6

Site Information

Site Name: **4** Total Site Sq. Ft: **5** Total Buildings: **6**

Street Address:

City:

State: Zip:

3 Delete Site Cancel Save Changes

1 ADDING A NEW SITE

4 SITE NAME

2 EDIT EXISTING SITE

5 TOTAL SITE SQ. FT.

3 DELETE EXISTING SITE

6 TOTAL BUILDINGS

BASIC COMMANDS

Sample Property 100 - User Guide
Washington, DC

Property ID: 800336699
FHA #: 053-11346

Status: Draft - On My Desk Validation: Validation Needed

Assessment Entry Validation

Property Info

- CNA Summary
- Assessment Scope
- Participants

Site Name	Street Address	City	Zip	Total Site Sq. Ft	Total Buildings
Sample Site 100	Sample Street	Washington	20001	670786	6

1 Add New Site

1. ADDING A NEW SITE

Click “Add New Site” to enter a new site into the site table. Enter all fields in the Site Information section prior to clicking “Save New Site” at the bottom of the screen.

Sample Property 100 - User Guide
Washington, DC

Property ID: 800336699
FHA #: 053-11346

Status: Draft - On My Desk Validation: Validation Needed

Assessment Entry Validation

Property Info

- CNA Summary
- Assessment Scope
- Participants

Site Name	Street Address	City	Zip	Total Site Sq. Ft	Total Buildings
Sample Site 100	Sample Street	Washington	20001	670786	6

2 Add New Site

2. EDIT EXISTING SITE

Click on the entered site that you would like to edit in the site table. Make any necessary changes in the Site Information section and click “Save Changes” at the bottom of the screen.

Parking

Components, Alts & Recs

Repair Needs Analysis

Processing Info

Units Inspected

State: DC - District... X Zip: 20001

3 Delete Site Cancel Save Changes

3. DELETE EXISTING SITE

Click on the site that you would like to delete in the site table. Click “Delete Site” at the bottom of the screen.

DATA ENTRY FIELDS

Participants

Utility Types & Rates

Design & Construction

- Sites
- Buildings
- Unit Types

Site Information

Site Name: Sample Site 100 Total Site Sq. Ft: 670786.00 Total Buildings: 6

Street Address: Sample Street

City:

4

4. SITE NAME

Each site you create must be given a unique Site Name. If the property contains only a single site, it is helpful to enter “Single Site” as the name. Otherwise, this may be an address, a name with an address, or an alphanumeric or directional label, such as north or south.

Participants

Utility Types & Rates

Design & Construction

Sites

Buildings

Unit Types

Site Information

Site Name: Sample Site 100

Total Site Sq. Ft: 670786.00

Total Buildings: 6

Street Address: Sample Street

City:

5. TOTAL SITE SQ. FT.

This may be calculated or obtained from the most reliable sources available. Such sources may include the land and tax records of the local jurisdiction or a land survey by a registered land surveyor.

Participants

Utility Types & Rates

Design & Construction

Sites

Buildings

Unit Types

Site Information

Site Name: Sample Site 100

Total Site Sq. Ft: 670786.00

Total Buildings: 6

Street Address: Sample Street

City:

6. TOTAL BUILDINGS

Read-only. This displays the total number of buildings located on this site that is automatically calculated after the Buildings screen is completed.



CHAPTER 9: BUILDINGS

OVERVIEW

The Buildings screen is where users enter all the buildings for each site that are included in the CNA assessment. Multiple buildings may be entered per site. Sites must be entered before buildings can be added to the CNA, since buildings are assigned to sites.

INSTRUCTIONS ON ENTERING DATA

Sample Property 100 - User Guide | Property ID: 800236699 | Status: Draft - On My Desk | Validation: Validation Needed | Options

BUILDINGS (6)

Site	Building	Type	Stories	Year Built	Unit Count
Sample Site 100	Building 109 - 115	Walk-up	2	1985	0
Sample Site 100	Building 117 - 119	Walk-up	2	1985	16
Sample Site 100	Leasing Office, Business Center, Fitness Center and Maintenance Storage	Walk-up	1	1985	0

Building Summary

Replacement Cost of Building: \$0 | Accessory Building: Yes

Total Building SQ FT: 0 | Total Faucets/Hookups: 0 | Total Toilets: 0

Total Showerheads: 0 | Total Residential SQ FT: 0

Building Information

Site: Sample Site 100 X

Building Name/Address: Building 109 - 115

Year Built: 1985 | Year of Rehab: | Replacement Cost of Building per Sq. Ft.: 119.120000

Occupancy Permit Date: mm/dd/yyyy | Building Permit Date: mm/dd/yyyy | Source of Replacement Cost Data: RSMears

Fair Housing Act?: No

Building Description

Building Type: Walk-up | Stories Above Grade: 2.00 | Stories Below Grade: 0.00 | Number of Elevators: 0 | Basement Floor: N/A

Construction Specifics

Foundation: Slab on Grade | Foundation Comments: 0

Construction Type: Concrete Frame | Construction Type Comments: 0

Floor System: Reinforced Concrete | Floor System Comments: 0

Buttons: Delete Building, Cancel, Save Changes

1 ADDING A NEW BUILDING

4 BUILDING INFORMATION

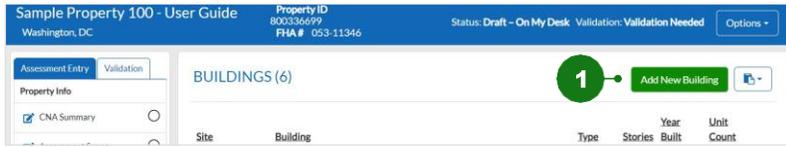
2 EDIT EXISTING BUILDING

5 BUILDING DESCRIPTION

3 DELETE EXISTING BUILDING

6 CONSTRUCTION SPECIFICS

BASIC COMMANDS



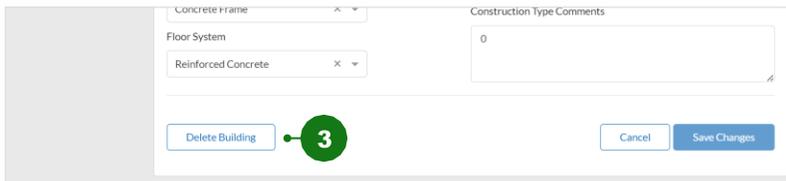
1. ADDING A NEW BUILDING

Click “Add New Building” to enter a new building into the buildings table. Enter all fields in the Building Information section prior to clicking “Save New Building” at the bottom of the screen.



2. EDIT EXISTING BUILDING

Click on the entered building that you would like to edit in the buildings table. Make any necessary changes in the Building Information section and click “Save Changes” at the bottom of the screen.



3. DELETE EXISTING BUILDING

Click on the building that you would like to delete in the buildings table. Click “Delete Building” at the bottom of the screen. Deleting a building will delete associated units and common spaces.

DATA ENTRY FIELDS



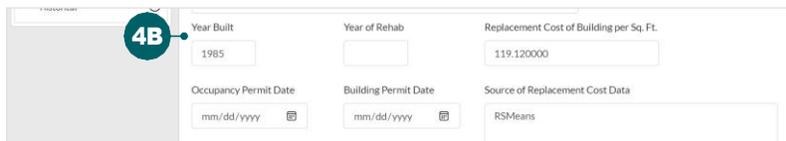
▼ Building Information **4**

Site
Sample Site 100 ×



Building Name/Address **4A**
Building 109 - 115

Year Built: 1985 Year of Rehab: Replacement Cost of Building per Sq. Ft.: 119.120000



4B Year Built: 1985 Year of Rehab: Replacement Cost of Building per Sq. Ft.: 119.120000

Occupancy Permit Date: mm/dd/yyyy Building Permit Date: mm/dd/yyyy Source of Replacement Cost Data: RSMMeans



4C Year Built: 1985 Year of Rehab: Replacement Cost of Building per Sq. Ft.: 119.120000

Occupancy Permit Date: mm/dd/yyyy Building Permit Date: mm/dd/yyyy Source of Replacement Cost Data: RSMMeans



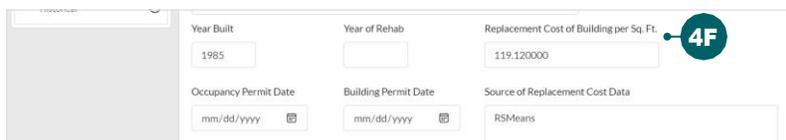
4D Occupancy Permit Date: 04/15/1991 Building Permit Date: 05/28/1990 Source of Replacement Cost Data: Baltimore HUD 221(d)(4) costs

Fair Housing Act?: No



Occupancy Permit Date: mm/dd/yyyy Building Permit Date: mm/dd/yyyy Source of Replacement Cost Data: RSMMeans

Fair Housing Act? **4A** No



Year Built: 1985 Year of Rehab: Replacement Cost of Building per Sq. Ft. **4F**: 119.120000

Occupancy Permit Date: mm/dd/yyyy Building Permit Date: mm/dd/yyyy Source of Replacement Cost Data: RSMMeans

4. BUILDING INFORMATION

Select the site where the building is located. This dropdown will list the sites entered in the sites form.

4A. BUILDING NAME/ADDRESS

Enter a unique address, descriptive name, or building number for the building. Each building name should be unique to avoid any confusion if there are multiple sites at the property.

4B. YEAR BUILT

This should be the year that construction was completed. See [Year Built](#) for more information.

4C. YEAR OF REHAB

Enter the year that the property went through a significant rehabilitation in the past. Rehabilitation means “a level of effort that would have reset the remaining useful life of most of the components now existing in the building.”

4D. OCCUPANCY PERMIT DATE

This is only relevant if the year built is 1990, 1991, or 1992 for the purposes of Fair Housing Act requirements.

4E. FAIR HOUSING ACT

This is determined by the year built. Select “Yes” or “No.”

4F. REPLACEMENT COST OF BUILDING PER SQ. FT.

Estimate the replacement cost per square foot of the existing building, not including land or site improvements. See [Replacement Cost of Building per Square Foot](#) for more information.

▼ Building Description **5**

5A Building Type: Walk-up

Stories Above Grade: 2.00

Stories Below Grade: 0.00

Number of Elevators: 0

Basement Floor: N/A

▼ Building Description **5B**

Building Type: Walk-up

Stories Above Grade: 2.00

Stories Below Grade: 0.00

Number of Elevators: 0

Basement Floor: N/A

▼ Building Description **5C**

Building Type: Walk-up

Stories Above Grade: 2.00

Stories Below Grade: 0.00

Number of Elevators: 0

Basement Floor: N/A

6 ▼ Construction Specifics

Foundation: Slab on Grade

Construction Type: Concrete Frame

Floor System: Reinforced Concrete

6A Foundation Comments: 0

Construction Type Comments: 0

▼ Construction Specifics **6B**

Foundation: Slab on Grade

Construction Type: Concrete Frame

Floor System: Reinforced Concrete

Foundation Comments: 0

Construction Type Comments: 0

▼ Construction Specifics **6C**

Foundation: Slab on Grade

Construction Type: Concrete Frame

Floor System: Reinforced Concrete

Foundation Comments: 0

Construction Type Comments: 0

5. BUILDING DESCRIPTION

5A. BUILDING TYPE

See [Definitions of HUD Building Types](#) for more information.

5B. STORIES ABOVE GRADE

Basements are counted as a below-grade story. The count of floors should not include crawl spaces or plenum spaces between floors.

5C. STORIES BELOW GRADE

See [Calculating Number of Stories Below Grade](#) for more information.

6. CONSTRUCTION SPECIFICS

6A. FOUNDATION COMMENTS

Enter comments to identify other foundation types or to explain a mixed or unusual condition. A typical “Other” might be a building constructed on wooden or concrete piers extending above a mean flood elevation in order to raise the finished floor elevation or to leave open space or parking below the building.

6B. CONSTRUCTION TYPE

The references to masonry as a structural element indicates that the masonry is load bearing. See [Construction Type](#) for more information.

6C. CONSTRUCTION TYPE COMMENTS

Describe mixed or “Other” construction types with a text description in this field. Comments concerning the floor frame and other construction-related comments may be entered here as needed.

MORE INFORMATION

YEAR BUILT

In general, Year Built may describe a calendar year in which construction either began or ended. However, a more precise date is required when the Year Built is proximate to the effective date of the design and construction requirements of the Fair Housing Act.

24 CFR 100.205 defines a transition rule for buildings that may have been in some stage of construction proximate to the March 13, 1991, effective date. It reads "... [a] dwelling shall be deemed to be designed and constructed for first occupancy on or before March 13, 1991, if the dwelling is occupied by that date, or if the last building permit or renewal thereof for the dwelling is issued ... on or before June 15, 1990."

Accordingly, if the year built is 1990, 1991, or 1992, the Preparer must enter the dates of the building and occupancy permits for the building. If occupancy is after March 13, 1991, and the building permit is after June 15, 1990, then the unit or building must meet the design and construction requirements.

REPLACEMENT COST OF BUILDING PER SQUARE FOOT

This estimate should be based on the building and construction types and quality, and should reflect current construction cost averages for the locality or region in which the building is located. The user should consult current information from industry-recognized, publicly available construction cost indices. Preparers may also cite the costs of recently completed projects for HUD or USDA that are similar in type and characteristics. The dollar cost per square foot estimate should be a reasonable and realistic figure to hypothetically reconstruct the building as of the year of the assessment.

The estimate should assume all costs that would be included on HUD Form 2328, Mortgagor's Cost Estimate, excluding land improvements but including general requirements and the building contractor's allowance for overhead and profit, as though the contractor were an independent third party unrelated to the owner.

HUD Form 2328 may be found at

<https://www.hud.gov/sites/dfiles/OCHCO/documents/2328.pdf>

DEFINITIONS OF HUD BUILDING TYPES

The following building types are those used on HUD forms 92013 and 92264, the application for mortgage insurance and the summary multifamily appraisal report, respectively. The definitions are mutually exclusive (i.e., only one is correct). The definitions are as follows:

DETACHED. A dwelling structure containing one living unit, surrounded by permanent open spaces.

SEMI-DETACHED. A dwelling structure containing two contiguous living units separated by a vertical division termed a common, party, or lot line wall.

ROWHOUSE OR TOWNHOUSE. A non-elevator structure containing three or more contiguous living units separated by a vertical division termed common, party, or lot line walls. Row/Townhouse units may not be enclosed on more than two sides by party or lot line walls and must have permanent open space contiguous to no fewer than two sides. Units will usually have a private entrance and private interior stairs.

WALKUP. A multilevel structure of two or more living units that does not contain an elevator, with the units separated horizontally by floor and/or ceiling structural elements. Does not include detached, semi-detached, or rowhouse/townhouse.

Note: A note in the HUD Form 92013 instructions indicates that any non-elevator building that is not a detached, semi-detached, or row/townhouse is a Walkup. A “one up, one down” duplex is a Walkup. A single-story 3-plex or 4-plex (back-to-back duplex) is a Row-Townhouse building.

Elevator Buildings are defined as follows:

- **Two- to five-story elevator** (any elevator building of two to five stories)
- **Highrise** (any elevator building of six or more stories)

CALCULATING NUMBER OF STORIES BELOW GRADE

The Number of Stories Below Grade entry is intended to count simple basements, as well as the below-ground levels of parking, utility spaces, leased space, or other spaces that may be found typically in an urban, high-density environment.

Note that this does not refer to floors that are partially underground due to sloping terrain, but have a full front elevation with direct access to ground at grade. That is, a “daylight basement” or “terrace units” or “terrace level” would not be “below grade” for the purposes of this entry.

However, a basement with access via an exterior stairwell up to grade would be “below grade” for the purposes of this entry.

If you have to go downstairs to get to the floor elevation and there is no entry door at-grade for that floor, then it is below grade. This does not apply to units on terraced sites where there may be an external set of steps from one terrace ground level to another, all outside the building.

Note: *If the basement is entirely below grade (no windows), but can be accessed from grade via external stairs (i.e., you do not have to go through the interior of the floor above in order to access the basement), the floor is below grade. A basement does not cease to be a basement just because it has exterior stairs. Likewise, a unit at grade does not cease to be a unit at grade just because the grade outside the unit changes rapidly (i.e., at short intervals of distance) and requires some terracing or steps to get from the building to another building or parking, etc.*

CONSTRUCTION TYPE

Solid masonry is not supported by a frame, metal, or concrete members and is now obsolete, but is still found in old low-rise buildings and some structures that may be converted to multifamily use, such as old warehouse buildings.



CHAPTER 10: UNIT TYPES

OVERVIEW

The Unit Types screen is where users enter all the types of units that can be assigned to buildings. A unit type is a unique combination of at least three characteristics: number of bedrooms, number of baths, and unit size (square footage). Each unique combination of these three factors should have its own unit type. At least one unit type must be entered, and multiple unit types may be entered. Unit types are assigned to buildings (on the Units and Common Spaces screen), and buildings are assigned to sites. Multiple unit types can be assigned to a building.

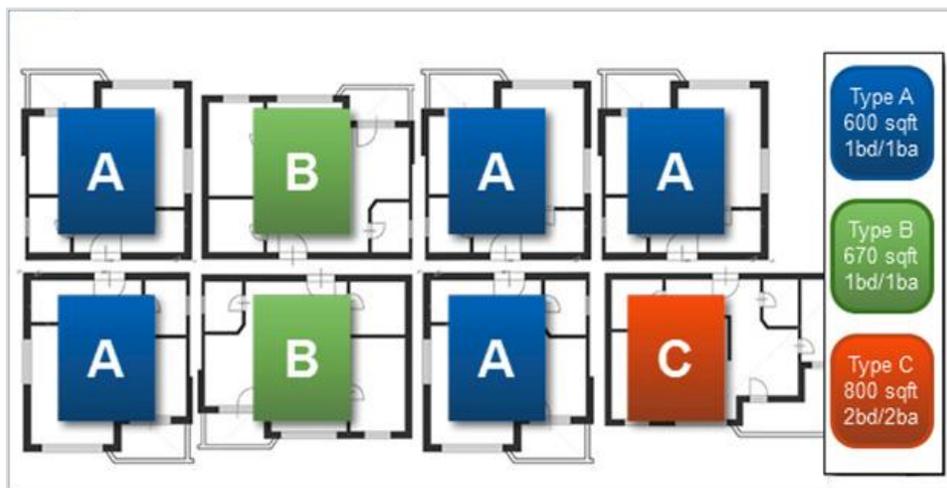
RELATIONSHIP BETWEEN THE BUILDINGS, UNIT TYPES, AND UNITS AND COMMON SPACES SCREEN

Most multifamily buildings contain units that have similar characteristics with many other units in the building. For example, it is common for apartment buildings to use the same floor plan for most of the same sized units in the building (i.e., often all the one-bedroom units within a building have the same square footage and layout).

In CNA e-Tool, units with similar layouts/characteristics are described as “unit types.” A “unit type” for these purposes is specifically defined as a unique combination of:

- Square footage
- Number of bedrooms
- Number of bathrooms

The image below demonstrates a situation where there are three unit types: A, B, and C, each with a varying number of square feet, bedrooms, and bathrooms. In the case of this building, there are five instances of unit type A, two of unit type B, and one of unit type C.



If the Preparer were evaluating the building above, they would implement the following process to create the unit types and assign them.

1. Define three unit types (“A,” “B,” and “C”) along with their square footage and number of bedrooms and bathrooms on the Unit Types screen.
2. Assign all three unit types to the building (indicating that at least one of this unit type is present in the building) on the Units and Common Spaces screen.
3. Indicate that there are five instances of unit type A, two of unit type B, and one of unit type C in the building on the Units and Common Spaces screen.

INSTRUCTIONS ON ENTERING DATA

Sample Property 100 - User Guide Property ID: 800336699 Status: Draft - On My Desk Validation: Validated - Severe Flags Options -
Washington, DC FHA # 053-11346

Assessment Entry Validation

Property Info

- CNA Summary
- Assessment Scope
- Participants
- Utility Types & Rates

Design & Construction

- Sites
- Buildings
- Unit Types
- Units & Common Spaces
- Parking
- Components, Alts & Recs
- Repair Needs Analysis

Processing Info

- Units Inspected
- Narratives & Attachments

Financial Factors

- Repair Replace Decisions

Energy

- Current
- Historical

UNIT TYPES (7)

1 Add New Unit Type

Unit Type Name	Sq. Ft.	Bedrooms	Bathrooms	Shower Heads	Sinks/Laundry Hookups	Toilets
1-Bed/1-Bath - 750 SF	750	1	1	1	3	1
1-Bed/1-Bath - NF (No Fireplace) - 750 SF	750	1	1	1	3	1
2-Bed/1-Bath NF (No Fireplace) - 850 SF	850	2	1	1	3	1
2-Bed/1.5-Bath - 925 SF	925	2	1.5	1	4	2
2-Bed/1.5-Bath - NF (No Fireplace) - 925 SF	925	2	1.5	1	4	2

Unit Type Definition

4 Unit Type Name: 1-Bed/1-Bath - 750 SF

5 Sq. Ft. (measured paint to paint): 750.00

Bedrooms: 1

Bathrooms: 1.00

Shower Heads: 1

Sinks/Laundry Hookups: **6** 3

Toilets: 1.00

3 Delete Unit Type Cancel Save Changes

1 ADDING A NEW UNIT TYPE

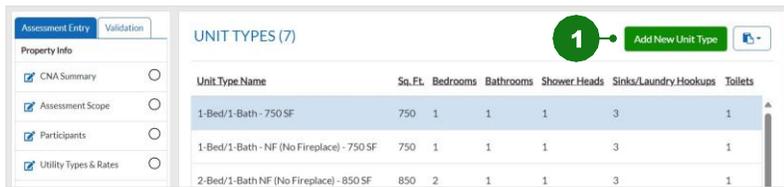
4 UNIT TYPE NAME

2 EDIT EXISTING UNIT TYPE

5 SQ. FT.

3 DELETE EXISTING UNIT TYPE

6 SINKS/LAUNDRY HOOKUPS



1. ADDING A NEW UNIT TYPE

Click “Add New Unit Type” to enter a new unit type into the unit type table. Enter all fields in the Unit Type Definition section prior to clicking “Save New Unit Type” at the bottom of the screen.



2. EDIT EXISTING UNIT TYPE

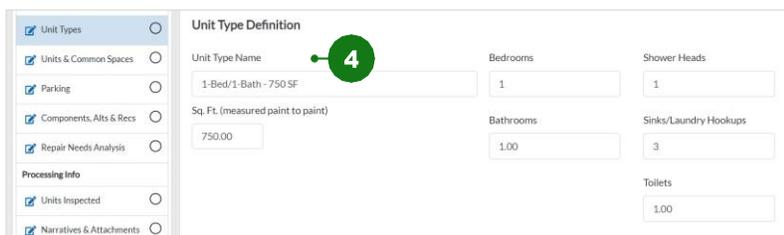
Click on the entered unit type that you would like to edit in the unit type table. Make any necessary changes in the Unit Type Definition section and click “Save Changes” at the bottom of the screen.



3. DELETE EXISTING UNIT TYPE

Click on the unit type that you would like to delete in the unit type table. Click “Delete Unit Type” at the bottom of the screen.

DATA ENTRY FIELDS



4. UNIT TYPE NAME

Enter a unique name for the unit. This name will appear in the relevant dropdowns throughout the CNA. Each unit type must have a unique name, and useful distinctions may be reflected in the Unit Type Name, such as design (e.g., townhouse versus apartment). The name should include important characteristics of the unit, such as number of bedrooms and bathrooms and square footage. It is not recommended that marketing names are used.

Example: A one-bedroom, one-bath 575-sq. ft. unit that is called a “Penfold” for marketing purposes by the property manager. This unit type may be named “1Br 1Ba” or “1/1” or “1/1 575” or “1/1 Penfold” in the Assessment Tool.

Note: If there are two types of one-bedroom, one-bath units that are different, a distinct Unit Type Name is required for each unit type (e.g., “1/1 575” and “1/1 650”). This will help you and other users recall the characteristics of this unit type at a glance.

The units that have in-unit garages should be created as a separate unit type distinct from other unit types that may have the same number of bedrooms and bathrooms.

Unit Type Definition			
Unit Type Name	Bedrooms	Shower Heads	
1-Bed/1-Bath - 750 SF	1	1	
Sq. Ft. (measured paint to paint)	Bathrooms	Sinks/Laundry Hookups	
750.00	1.00	3	
		Toilets	
		1.00	

5. SQ. FT.

This figure should be based on dimensions from interior wall to interior wall (or paint to paint). Do not attempt to extract space for interior partitions, plenums, and so forth. Common areas should not be included in, or allocated to, unit square footage. Only enclosed space should be included, not porches, balconies, or patios.

Unit Type Definition			
Unit Type Name	Bedrooms	Shower Heads	
1-Bed/1-Bath - 750 SF	1	1	
Sq. Ft. (measured paint to paint)	Bathrooms	Sinks/Laundry Hookups	
750.00	1.00	3	
		Toilets	
		1.00	

6. SINKS/LAUNDRY HOOKUPS

This includes the total number of kitchen faucets, bathroom faucets, and laundry hookups in the unit type. Sinks with multiple faucets for hot and cold water should be counted as a single faucet. A bathtub with no shower head is considered a faucet, while a bathtub with a shower head is considered a shower head.

CHAPTER 11: UNITS AND COMMON SPACES

OVERVIEW

The Units screen is where users specify the number of units of each unit type that exist in a building. This is also where users indicate the number of each unit type reported to be accessible for persons with mobility or sensory impairment.

The Common Space screen is where users name and describe the common spaces within a building. Examples of common spaces include community rooms, offices, maintenance shops, storage rooms, laundry rooms, recreational spaces, and so forth.

CNA e-Tool defines every space within a building that is not a unit as a “common space.” All garage spaces other than in-unit garages are considered “common space.”

Note: The total building square footage has implications for computation of replacement cost as well as for ENERGY STAR® scores. Accordingly, it is necessary to indicate the square footage for every common space in the building when preparing a CNA for a HUD property.



INSTRUCTIONS ON ENTERING DATA

Sample Property 100 - User Guide Property ID: 802336699 Status: Draft - On My Desk Validation: Validation Needed Options

Washington, DC FTA #: 053-11346

Assessment Entry Validation

Property Info

CNA Summary

Assessment Scope

Participants

Utility Types & Rates

Design & Construction

Sites

Buildings

Unit Types

Units & Common Spaces

Parking

Components, Alts & Recs

Repair Needs Analysis

Processing Info

Units Inspected

Narratives & Attachments

Financial Factors

Repair/Replace Decisions

Energy

Current

Historical

UNITS & COMMON SPACES

Site	Building	Type	Stories	Unit Types
Sample Site 100	Building 109 - 115	Walk-up	2	—
Sample Site 100	Building 117 - 119	Walk-up	2	1-Bed/1-Bath - 750 SF; 2-Bed/2-Bath - 1,015 SF
Sample Site 100	Leasing Office, Business Center, Fitness Center and Maintenance Storage	Walk-up	1	—

Selected Site and Building

Site: Sample Site 100 Building: Building 117 - 119

Unit Types Added to Building (2) Add Unit Type to Building

2-Bed/2-Bath - 1,015 SF ×

Total Unit Sq. Ft.	Sq. Ft.	Bedrooms	Bathrooms	Toilets	Shower Heads	Faucets/Hookups
8,120	1,015	2	2	2	2	4

Unit Counts

Total Number of Units	Mobility Impaired Units	Sensory Impaired Units	Spaces Per Unit (inc. # accessible)	Accessible Spaces Per Unit	Percent Accessible Spaces	Number of Spaces
8	0	0	0	0	0%	0

In-Unit Garage Parking Spaces

Remove Unit Type

1-Bed/1-Bath - 750 SF ×

Total Unit Sq. Ft.	Sq. Ft.	Bedrooms	Bathrooms	Toilets	Shower Heads	Faucets/Hookups
6,000	750	1	1	1	1	3

Unit Counts

Total Number of Units	Mobility Impaired Units	Sensory Impaired Units	Spaces Per Unit (inc. # accessible)	Accessible Spaces Per Unit	Percent Accessible Spaces	Number of Spaces
8	0	0	0	0	0%	0

In-Unit Garage Parking Spaces

Remove Unit Type

Common Spaces (1) Add New Common Space

Common Space Name: Clubhouse Common Space Comments

Common Space Type: Amenity/Recreation Sq. Ft.: 1000

Commercial/Public Accommodation: YES Compliance Required: YES Compliance Exists: YES

Plumbing Fixtures Garage Parking Spaces

Shower Heads	Toilets	Faucets/ Hookups	Spaces (inc. # accessible)	Accessible Spaces	Percent Accessible Spaces
0	1	1	3	1	33%

- 1 SELECT BUILDING**
- 2 UNIT TYPES**
- 3 COMMON SPACES**

Site	Building	Type	Stories	Unit Types
Sample Site 100	Building 109 - 115	Walk-up	2	—
Sample Site 100	Building 117 - 119	Walk-up	2	1-Bed/1-Bath - 750 SF; 2-Bed/2-Bath - 1,015 SF
Sample Site 100	Leasing Office, Business Center, Fitness Center and Maintenance Storage	Walk-up	1	—

1. SELECT BUILDING

Units and Common Spaces are added to buildings. Click on the building you want to add units and common spaces to in the building table.

UNITS

Unit Types Added to Building (2) **2** Add Unit Type to Building

2-Bed/2-Bath - 1,015 SF X

Total Unit Sq. Ft.	Sq. Ft.	Bedrooms	Bathrooms	Toilets	Shower Heads	Faucets/Hookups
8,120	1,015	2	2	2	2	4

Unit Counts In-Unit Garage Parking Spaces

2. UNIT TYPES

Unit counts for a building are entered by each unit type. If a building has multiple unit types, each unit type should be counted separately.

Unit Types Added to Building (2) **2A** Add Unit Type to Building

2A. ADD UNIT TYPE

Click “Add Unit Type to Building” to add a new unit type.

Historical **2B**

UNIT TYPES	UNIT TYPES	UNIT TYPES	ACCESSIBLE	PER UNIT	PERCENT
8	0	0	0	0	0%

Remove Unit Type Cancel Changes Save Unit Counts

2B. SAVE UNIT COUNTS

Click “Save Unit Counts” to save any changes made to the unit counts.

Historical **2C**

UNIT TYPES	UNIT TYPES	UNIT TYPES	ACCESSIBLE	PER UNIT	PERCENT
8	0	0	0	0	0

Remove Unit Type Cancel Changes Save Unit Counts

2C. CANCEL CHANGES

Click “Cancel Changes” to cancel any changes made to the unit counts.

Historical **2D**

UNIT TYPES	UNIT TYPES	UNIT TYPES	ACCESSIBLE	PER UNIT	PERCENT
8	0	0	0	0	0

Remove Unit Type Cancel Changes Save Unit Counts

2D. REMOVE UNIT TYPE

Click “Remove Unit Type” to remove the unit type from the building.

Unit Types Added to Building (2) **2E** Add Unit Type to Building

2-Bed/2-Bath - 1,015 SF X

2E. UNIT TYPE

Use the Unit Type dropdown to select unit types present at the building. This dropdown is populated by data entered in the Unit Type section.

Unit Types Added to Building (2) Add Unit Type to Building

2-Bed/2-Bath - 1,015 SF X **2G**

Total Unit Sq. Ft.	Sq. Ft.	Bedrooms	Bathrooms	Toilets	Shower Heads	Faucets/Hookups
8,120	1,015	2	2	2	2	4

Unit Counts In-Unit Garage Parking Spaces

Total Number of Units	Mobility Impaired Units	Sensory Impaired Units	Spaces Per Unit (inc. # accessible)	Accessible Spaces Per Unit	Percent Accessible Spaces	Number of Spaces
8	0	0	0	0	0%	0

Remove Unit Type Cancel Changes Save Unit Counts

2F. TOTAL NUMBER OF UNITS

Enter the total number of units of this unit type that are present in this building. This total should include the number of mobility-impaired units and sensory-impaired units.

2G. MOBILITY-IMPAIRED UNITS

Enter the number of units of this unit type located in this building that are reported to be accessible for persons with mobility impairments.

Unit Types Added to Building (2) Add Unit Type to Building

2-Bed/2-Bath - 1,015 SF ×

Total Unit Sq. Ft.	Sq. Ft.	Bedrooms	Bathrooms	Toilets	Shower Heads	Faucets/Hookups
8,120	1,015	2	2	2	2	4

Unit Counts

Total Number of Units	Mobility Impaired Units	Sensory Impaired Units
8	0	0

In-Unit Garage Parking Spaces

Spaces Per Unit (inc. # accessible)	Accessible Spaces Per Unit	Percent Accessible Spaces	Number of Spaces
0	0	0%	0

Remove Unit Type Cancel Changes Save Unit Counts

1-Bed/1-Bath - 750 SF ×

Total Unit Sq. Ft.	Sq. Ft.	Bedrooms	Bathrooms	Toilets	Shower Heads	Faucets/Hookups
6,000	750	1	1	1	1	3

1-Bed/1-Bath - 750 SF ×

Sq. Ft.	Bedrooms	Bathrooms	Toilets	Shower Heads	Faucets/Hookups
750	1	1	1	1	3

Unit Counts

Total Number of Units	Mobility Impaired Units	Sensory Impaired Units
8	0	0

In-Unit Garage Parking Spaces

Spaces Per Unit (inc. # accessible)	Accessible Spaces Per Unit	Percent Accessible Spaces	Number of Spaces
0	0	0%	0

Remove Unit Type Cancel Changes Save Unit Counts

2H. SENSORY-IMPAIRED UNITS

Enter the number of units of this unit type located in this building that are reported to be accessible for persons with sensory impairments. See [Section 504 of the Rehabilitation Act of 1973](#) for more information.

2I. TOTAL UNIT SQUARE FEET

This is a read-only field that displays the total square footage of the units of this type. It is calculated by multiplying the number of units for that unit type by the square footage of the unit defined in the Unit Type section.

2J. UNIT TYPE INFORMATION

These are read-only. The square footage, bedrooms, bathrooms, toilets, shower heads, and faucets/hookups are displayed for the selected unit type.

2K. IN-UNIT GARAGE PARKING SPACES

If the Unit Type has an In-Unit Garage, enter the number of parking spaces available in the garage of the dwelling unit on a per unit basis (i.e., # of parking spaces available within a single dwelling unit of that Unit Type). Also, enter the number of accessible space(s) available in the In-Unit garage, per unit.

Note: Information entered here will also appear in the Parking Screen (Chapter 12).

COMMON SPACES

3 Common Spaces (1) Add New Common Space

Common Space Name
Clubhouse

Common Space Comments

3A Add New Common Space

Common Space Name
Clubhouse

Common Space Comments

Shower Heads: 0 Toilets: 1 Faucets/ Hookups: 1 Spaces (inc. # accessible): 3 Accessible Spaces: 1 Accessible Spaces: 33%

3B Save Common Space

Delete Common Space Cancel Changes

3C Cancel Changes Save Common Space

3D Delete Common Space Cancel Changes Save Common Space

3E Common Space Name
Clubhouse

Common Space Comments

3F Common Space Type: Amenity/Recreation Sq. Ft.: 1000

Common Space Name: Clubhouse

Common Space Comments

3G Common Space Type: Amenity/Recreation Sq. Ft.: 1000

Common Space Name: Clubhouse

Common Space Comments

3H Common Space Comments

Common Space Name: Clubhouse

Common Space Type: Amenity/Recreation Sq. Ft.: 1000

3. COMMON SPACES

Each common space within a building is entered separately.

3A. ADD COMMON SPACE

Click “Add New Common Space” to add a new common space.

3B. SAVE COMMON SPACE

Click “Save Common Space” to save any changes made to the common space.

3C. CANCEL CHANGES

Click “Cancel Changes” to cancel edits made to any fields in the Common Spaces section.

3D. REMOVE COMMON SPACE

Click “Delete Common Space” to remove the common space from the building.

3E. COMMON SPACE NAME

Enter a unique label that helps to identify the common space.

3F. COMMON SPACE TYPE

Select the type that most closely describes the common space from the dropdown list.

3G. SQ. FT.

Calculate and enter the square footage of the identified common space, which should be based on dimensions from interior to interior (or paint to paint) walls, with no attempt to extract space for interior partitions, plenums, and so forth.

3H. COMMON SPACE COMMENTS

Enter comments when needed to clarify any description of a common space.

Common Space Name: Clubhouse

Common Space Type: Amenity/Recreation

Sq. Ft.: 1000

Commercial/Public Accommodation: YES

Compliance Required: YES

Compliance Exists: YES

Common Space Comments:

Common Space Name: Clubhouse

Common Space Type: Amenity/Recreation

Sq. Ft.: 1000

Commercial/Public Accommodation: YES

Compliance Required: YES

Compliance Exists: YES

Common Space Comments:

3I. COMMERCIAL/PUBLIC ACCOMMODATION

Select “YES” or “NO” to indicate whether the identified space is a public accommodation. See [Commercial/Public Accommodations](#) for more information.

3J. COMPLIANCE REQUIRED

This is an auto-calculated indicator that is “YES” if compliance with the ADA is required, or “NO” if compliance is not required. For any space identified as a public accommodation, this indicator will be “YES.”

When the “Compliance Required” indicator is “YES,” determine that the space complies with the accessibility requirements of Title III of the ADA. See [Title III of the ADA](#) for more information about these requirements.

Plumbing Fixtures

Shower Heads: 0

Toilets: 1

Faucets/Hookups: 1

Garage Parking Spaces

Spaces (inc. # accessible): 3

Accessible Spaces: 1

Percent Accessible Spaces: 33%

Delete Common Space | Cancel Changes | Save Common Space

3K. GARAGE PARKING SPACES

Enter the number of garage parking spaces. A “Common Garage” is an enclosed structure (or portion thereof) containing multiple parking spaces. These spaces are commonly located underneath a residential building or in a separate parking structure.

Note: All garage spaces other than in-unit garages are considered “common space.” The fact that a common garage may have a space or spaces assigned or rented to individual tenants does not change their characterization as common garage parking spaces.

* Within CNA e-Tool, displayed data entry field(s) may vary depending on the user’s selection of CNA type and program or event type. Due to these dependencies, users may see screens that look different from those shown in this Guide. To alert users about these possible variations, fields with dependencies are marked with an asterisk. This affects a relatively small percentage of the fields. For a complete listing of dependencies, see the CNA Dependency User Path Matrix located at the end of this Guide.

MORE INFORMATION

SECTION 504 OF THE REHABILITATION ACT OF 1973

HUD and USDA rules implementing Section 504 of the Rehabilitation Act of 1973 vary on key particulars. Some notable differences include dates when compliance was required, the timing and extent of UFAS compliance, and whether units must be set aside specifically for sensory-impaired persons. See also: [Considerations for the Federally Assisted Indicator](#).

MULTIPLE INSTANCES OF A COMMON SPACE TYPE

If there are multiple instances of a common space type within the same building (e.g., hallways or corridors on separate floors), those that are identical in all respects (including size, accessibility requirements and compliance, and plumbing fixtures) may be grouped together under a single Common Space Name (e.g., “Corridors flrs 1–10”) and the aggregate of square footage, plumbing fixtures, etc. However, if the space or groups of spaces vary in characteristics, then use descriptive text in the Common Space Name field to distinguish among them (e.g., “Hallway 1st Fl.,” “Hallway 2nd Fl.,” or “Hallways Flrs 1–5” and “Hallways Flrs 6–10”) and enter the square footage and characteristics for each hallway or grouping of hallways. Similarly, if one hallway is a public accommodation (e.g., on the ground floor and providing access to the leasing office) and others are not, this dissimilarity prevents including all hallways in a single group. For example, laundry rooms of different size and numbers of hookups should be separately named and characterized.

COMMERCIAL/PUBLIC ACCOMMODATIONS

The Commercial/Public Accommodation field indicates whether this Common Space is subject to the Americans with Disabilities Act (ADA) requirements for accessibility of “public accommodations” (e.g., the rental office is open to the public and thus is subject to the ADA).

Typically, a leasing office or marketing center in a clubhouse is a public accommodation. A laundry room or exercise facility for the use of tenants is not a public accommodation.

TITLE III OF THE ADA

The regulations implementing Title III of the ADA are found at [28 CFR Part 36](#).

Regulatory and technical assistance is available at <http://www.ada.gov> or by calling 1-800-514-0301 (voice) or 1-800-514-0383 (TTY).



CHAPTER 12: PARKING

OVERVIEW

The Parking screen of the CNA is where users enter information about parking. The Capital Needs Assessment e-Tool asks for two counts of parking spaces: the number of spaces that are accessible and all other parking spaces.

INSTRUCTIONS ON ENTERING DATA

Sample Property 100 - User Guide Property ID: 800336699 Status: Draft - On My Desk Validation: Validation Needed Options

Washington, DC FHA # 053-11346

Assessment Entry Validation

Property Info

- CNA Summary
- Assessment Scope
- Participants
- Utility Types & Rates

Design & Construction

- Sites
- Buildings
- Unit Types
- Units & Common Spaces
- Parking
- Components, Alts & Recs
- Repair Needs Analysis

Processing Info

- Units Inspected
- Narratives & Attachments
- Financial Factors
- Repair/Replace Decisions

Energy

- Current
- Historical

PARKING (3)

4 Property Totals

	Spaces (inc. # accessible)	Accessible Spaces	Percent Accessible	Improved Vehicular Surface Area
Surface Parking - Open	0	0	-	Sq. Ft.
Surface Parking - Carport	0	0	-	
Garage Parking - Common	3	1	33%	
Garage Parking - In-Unit	0	0	-	
Property Total	3	1	33%	

Site	Vehicular Surface Area	Total Site Spaces	Surface Parking - Open Spaces (inc. # accessible)	Surface Parking - Carport Spaces (inc. # accessible)	Garage Parking - In-Unit Spaces	Garage Parking - Common Spaces
Sample Site 100		3			0	3

5 Surface Parking Spaces

Site: Sample Site 100

Improved Vehicular Surface Area (Sq. Ft.):

Open Spaces (inc. # Accessible):

Accessible Open Spaces:

Carport Spaces (inc. # Accessible):

Accessible Carport Spaces:

6 In-Unit Garage Parking Spaces

Building: Building 117 - 119 Unit Type: 2-Bed/2-Bath - 1,015 SF

Units In Building: Spaces Per Unit (inc. # accessible): Accessible Spaces Per Unit: Percent Accessible Spaces:

7 Common Garage Parking Spaces

Building: Building 117 - 119 Common Space Name: Clubhouse

Spaces (inc. # accessible): Accessible Spaces: Percent Accessible Spaces: 33%

- 1** SELECT SITE
- 2** SAVE CHANGES
- 3** CANCEL CHANGES
- 4** PROPERTY TOTALS
- 5** SURFACE PARKING SPACES
- 6** IN-UNIT GARAGE PARKING SPACES
- 7** COMMON GARAGE PARKING SPACES

BASIC COMMANDS



Buildings	Unit Types	Units & Common Spaces	Parking	Components, Alts & Recs	Site	Vehicular Surface Area	Total Site Spaces	Surface Parking - Open Spaces (inc. # accessible)	Surface Parking - Carport Spaces (inc. # accessible)	Garage Parking - In-Unit Spaces	Garage Parking - Common Spaces
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample Site 100		3			0	3

1. SELECT SITE

Parking information is entered for each site. To begin entering parking information, select a site in the table.



Building	Common Space Name	Spaces (inc. # accessible)	Accessible Spaces	Percent Accessible Spaces
Building 117 - 119	Clubhouse	3	1	33%

Cancel Save Changes

2. SAVE CHANGES

Once all the parking information for a single site has been entered, click "Save Changes."



Building	Common Space Name	Spaces (inc. # accessible)	Accessible Spaces	Percent Accessible Spaces
Building 117 - 119	Clubhouse	3	1	33%

Cancel Save Changes

3. CANCEL CHANGES

To cancel edits made to the Parking screen, click "Cancel Changes."

DATA ENTRY FIELDS



Property Info	Property Totals	Spaces (inc. # accessible)	Accessible Spaces	Percent Accessible	Improved Vehicular Surface Area
<input checked="" type="checkbox"/> CNA Summary					Sq. Ft.
<input checked="" type="checkbox"/> Assessment Scope	Surface Parking - Open	0	0	-	
<input checked="" type="checkbox"/> Participants	Surface Parking - Carport	0	0	-	
<input checked="" type="checkbox"/> Utility Types & Rates	Garage Parking - Common	3	1	33%	

4. PROPERTY TOTALS

This table is calculated based on the totals across all sites within the property.



Site	Improved Vehicular Surface Area (Sq. Ft.)	Open Spaces (inc. # Accessible)	Accessible Open Spaces
Sample Site 100	<input type="text"/>	<input type="text"/>	<input type="text"/>

Carport Spaces (inc. # Accessible)	Accessible Carport Spaces
<input type="text"/>	<input type="text"/>

5. SURFACE PARKING SPACES

This is where surface parking for each site is shown.

Note: Parking spaces that are not in common space garages and/or "in-unit" garages should be classified as surface parking.

<input checked="" type="checkbox"/> Parking	Surface Parking Spaces			
<input checked="" type="checkbox"/> Components, Alts & Recs	Site	Improved Vehicular Surface Area (Sq. Ft.)	Open Spaces (inc. # Accessible)	Accessible Open Spaces
<input checked="" type="checkbox"/> Repair Needs Analysis	Sample Site 100	<input type="text"/>	<input type="text"/>	<input type="text"/>
Processing Info				
<input checked="" type="checkbox"/> Units Inspected			Carpport Spaces (inc. # Accessible)	Accessible Carport Spaces
<input checked="" type="checkbox"/> Narratives & Attachments			<input type="text"/>	<input type="text"/>
Financial Factors				
Repair/Replace Decisions				

5A

5A. IMPROVED VEHICULAR SURFACE AREA

This field is the total square feet of improved or paved vehicular traffic ways, lanes, and parking. This should be estimated by the Preparer.

Note: This should not include any public right of way for which the property has no maintenance responsibility. When the costs of vehicular traffic ways, lanes, or parking are “shared” with another property because of a “common use and access easement,” do not subtract area from the estimate. Instead, state in Comments that estimated repair and replacement costs are adjusted because of the easement and state the basis or percentage of the adjustment.

<input checked="" type="checkbox"/> Parking	Surface Parking Spaces			
<input checked="" type="checkbox"/> Components, Alts & Recs	Site	Improved Vehicular Surface Area (Sq. Ft.)	Open Spaces (inc. # Accessible)	Accessible Open Spaces
<input checked="" type="checkbox"/> Repair Needs Analysis	Sample Site 100	<input type="text"/>	<input type="text"/>	<input type="text"/>
Processing Info				
<input checked="" type="checkbox"/> Units Inspected			Carpport Spaces (inc. # Accessible)	Accessible Carport Spaces
<input checked="" type="checkbox"/> Narratives & Attachments			<input type="text"/>	<input type="text"/>
Financial Factors				
Repair/Replace Decisions				

5B

5B. OPEN SPACES

Enter the total number of surface parking spaces for the selected site. This number includes Accessible Surface spaces. This should not include common garage parking spaces or in-unit parking spaces.

<input checked="" type="checkbox"/> Parking	Surface Parking Spaces			
<input checked="" type="checkbox"/> Components, Alts & Recs	Site	Improved Vehicular Surface Area (Sq. Ft.)	Open Spaces (inc. # Accessible)	Accessible Open Spaces
<input checked="" type="checkbox"/> Repair Needs Analysis	Sample Site 100	<input type="text"/>	<input type="text"/>	<input type="text"/>
Processing Info				
<input checked="" type="checkbox"/> Units Inspected			Carpport Spaces (inc. # Accessible)	Accessible Carport Spaces
<input checked="" type="checkbox"/> Narratives & Attachments			<input type="text"/>	<input type="text"/>
Financial Factors				
Repair/Replace Decisions				

5C

5C. ACCESSIBLE OPEN SPACES

Enter the total number of accessible surface parking spaces.

<input checked="" type="checkbox"/> Parking	Surface Parking Spaces			
<input checked="" type="checkbox"/> Components, Alts & Recs	Site	Improved Vehicular Surface Area (Sq. Ft.)	Open Spaces (inc. # Accessible)	Accessible Open Spaces
<input checked="" type="checkbox"/> Repair Needs Analysis	Sample Site 100	<input type="text"/>	<input type="text"/>	<input type="text"/>
Processing Info				
<input checked="" type="checkbox"/> Units Inspected			Carpport Spaces (inc. # Accessible)	Accessible Carport Spaces
<input checked="" type="checkbox"/> Narratives & Attachments			<input type="text"/>	<input type="text"/>
Financial Factors				
Repair/Replace Decisions				

5D

5D. CARPORT SPACES

Enter the total number of covered parking spaces. Covered parking is defined as surface parking (not in a building or garage) that is covered or partially protected by a carport or similar constructed shelter or shed and has no door. Exposed parking located underneath a structure erected on piers (not a basement or enclosed garage) is considered covered parking.

<input checked="" type="checkbox"/> Parking	Surface Parking Spaces			
<input checked="" type="checkbox"/> Components, Alts & Recs	Site	Improved Vehicular Surface Area (Sq. Ft.)	Open Spaces (inc. # Accessible)	Accessible Open Spaces
<input checked="" type="checkbox"/> Repair Needs Analysis	Sample Site 100	<input type="text"/>	<input type="text"/>	<input type="text"/>
Processing Info				
<input checked="" type="checkbox"/> Units Inspected			Carpport Spaces (inc. # Accessible)	Accessible Carport Spaces
<input checked="" type="checkbox"/> Narratives & Attachments			<input type="text"/>	<input type="text"/>
Financial Factors				
Repair/Replace Decisions				

5E

5E. ACCESSIBLE CARPORT SPACES

Enter the number of accessible covered surface parking spaces.

Energy		In-Unit Garage Parking Spaces 6	
Current	<input type="radio"/>	Building	Unit Type
Historical	<input type="radio"/>	Building 117 - 119	2-Bed/2-Bath - 1,015 SF
Units In Building	Spaces Per Unit (inc. # accessible)	Accessible Spaces Per Unit	Percent Accessible Spaces
8	0	0	

6. IN-UNIT GARAGE PARKING SPACES

An “In-Unit Garage” is typically an integral part of a unit, providing parking spaces for that unit’s occupants. For that reason, an In-Unit Garage is associated with a particular unit type to which it is integrated. Adding In-Unit Garages involves identifying the unit types to which the garages are attached or integrated, and the buildings to which the unit types are associated.

In-Unit garage parking spaces can be added or removed for a given unit type in the Units and Common Spaces screen. Only the quantity of spaces can be edited in the parking screen.

Energy		In-Unit Garage Parking Spaces	
Current	<input type="radio"/>	Building 6A	Unit Type
Historical	<input type="radio"/>	Building 117 - 119	2-Bed/2-Bath - 1,015 SF
Units In Building	Spaces Per Unit (inc. # accessible)	Accessible Spaces Per Unit	Percent Accessible Spaces
8	0	0	

6A. BUILDING

Read-only. Displays the selected site that has the unit type with the In-Unit Garage.

Energy		In-Unit Garage Parking Spaces	
Current	<input type="radio"/>	Building	Unit Type 6B
Historical	<input type="radio"/>	Building 117 - 119	2-Bed/2-Bath - 1,015 SF
Units In Building	Spaces Per Unit (inc. # accessible)	Accessible Spaces Per Unit	Percent Accessible Spaces
8	0	0	

6B. UNIT TYPE

Read-only. Displays the selected Unit Type with the In-Unit Garage as defined in the Unit Types screen.

Energy		In-Unit Garage Parking Spaces	
Current	<input type="radio"/>	Building	Unit Type
Historical	<input type="radio"/>	Building 117 - 119	2-Bed/2-Bath - 1,015 SF
Units In Building 6C	Spaces Per Unit (inc. # accessible)	Accessible Spaces Per Unit	Percent Accessible Spaces
8	0	0	

6C. UNITS IN BUILDING

Read-only. Once the Building and the Unit Type are selected, this field shows the number of units of the Unit Type that are located in that building.

Energy		In-Unit Garage Parking Spaces	
Current	<input type="radio"/>	Building	Unit Type
Historical	<input type="radio"/>	Building 117 - 119	2-Bed/2-Bath - 1,015 SF
Units In Building	Spaces Per Unit (inc. # accessible) 6D	Accessible Spaces Per Unit	Percent Accessible Spaces
8	0	0	

6D. SPACES PER UNIT

Enter the number of parking spaces in the In-Unit Garage enclosure. Typically, a residential garage has one or two spaces.

Energy		In-Unit Garage Parking Spaces	
Current	<input type="radio"/>	Building	Unit Type
Historical	<input type="radio"/>	Building 117 - 119	2-Bed/2-Bath - 1,015 SF
Units In Building	Spaces Per Unit (inc. # accessible)	Accessible Spaces Per Unit 6E	Percent Accessible Spaces
8	0	0	

6E. ACCESSIBLE SPACES PER UNIT

Enter the number of garage parking spaces that are accessible. This count is per each In-Unit Garage.

7 Common Garage Parking Spaces

Building	Common Space Name	Spaces (inc. # accessible)	Accessible Spaces	Percent Accessible Spaces
Building 117 - 119	Clubhouse	3	1	33%

7. COMMON GARAGE PARKING SPACES

Each row should be specific for a building. A “Common Garage” is an enclosed structure (or portion of) containing multiple parking spaces, commonly underground parking spaces of a residential building or a separate parking structure.

Common garage parking spaces can be added or removed for a given common space in the Units and Common Spaces screen. Only the quantity of spaces can be edited in this screen.

Note: The fact that a common garage may have a space or spaces assigned or rented to individual tenants does not change their characterization as common garage parking spaces.

7A Common Garage Parking Spaces

Building	Common Space Name	Spaces (inc. # accessible)	Accessible Spaces	Percent Accessible Spaces
Building 117 - 119	Clubhouse	3	1	33%

7A. BUILDING

Read-only. Displays the selected building that has the common garage spaces.

7B Common Garage Parking Spaces

Building	Common Space Name	Spaces (inc. # accessible)	Accessible Spaces	Percent Accessible Spaces
Building 117 - 119	Clubhouse	3	1	33%

7B. COMMON SPACE NAME

Read-only. This indicates which common space the garage is associated with.

7C Common Garage Parking Spaces

Building	Common Space Name	Spaces (inc. # accessible)	Accessible Spaces	Percent Accessible Spaces
Building 117 - 119	Clubhouse	3	1	33%

7C. SPACES

This field is auto-populated with information from the Units and Common Spaces screen. If you disagree with the number shown, enter the number of parking spaces that are in the common garage parking.

7D Common Garage Parking Spaces

Building	Common Space Name	Spaces (inc. # accessible)	Accessible Spaces	Percent Accessible Spaces
Building 117 - 119	Clubhouse	3	1	33%

7D. ACCESSIBLE SPACES

This field is auto-populated with information from the Units and Common Spaces screen. If you disagree with the number shown, enter the number of accessible parking spaces that are in the common garage parking.



CHAPTER 13: COMPONENTS, ALTERNATIVES, AND RECOMMENDATIONS

OVERVIEW

The Components, Alternatives, and Recommendations screen is where users, or Preparers, list all of the property's structural components (Components), determine how and when the components will be addressed (Recommendations), and develop, assign, and recommend the replacement alternatives (Alternatives).

COMPONENTS

A “Component” refers to a certain physical element at the property. This includes components of the building itself (floors, windows, roofs, heating systems, etc.) and also includes appliances and fixtures (refrigerators, sinks, etc.). In this section, the Preparer should identify all Components that need to be repaired or replaced as capital items (either now or in the future). A Component in the assessment may represent a set of items. For example, a Preparer might enter all refrigerators as a single Component and indicate the actual number of refrigerators in the Component’s details.

REPAIR REPLACEMENT RECOMMENDATION

CNA e-Tool v.3.2 lets users enter “Repair Replace Recommendation” information as part of the Component. The “Recommendation” is where the Preparer determines whether to repair or replace a component and when to do so. The Recommendation is not tied to an Alternative. It does not get deleted if you change the recommended Alternative.

ALTERNATIVES

Components that have exceeded their useful life need to be replaced with either an identical Component or a different type of Component. These different replacement options are called “Alternatives.” Each Component must have at least one Alternative. If the component has a green alternative, at least two Alternatives are required.

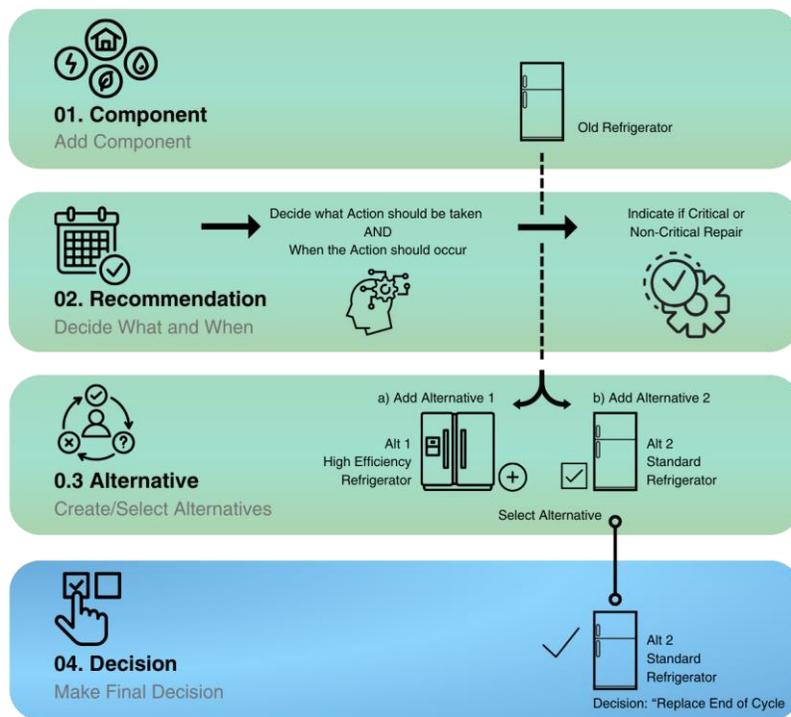
DISPLAY

CNA e-Tool v.3.2 displays Components in three categories: Future Needs, Critical Repairs, and Non-Critical Repairs. The e-Tool will automatically categorize Components based on “Action” + “When” entries and Critical Repair indicators.

When you “Add New Component” from the selected Category tab, relevant Recommendation parameters are automatically generated. For instance, a Component created under the “Non-Critical Repair” tab, will automatically show the “Action” as “Repair” and the “When” as “Now.” You can edit these fields and the Component will automatically appear under the correct Category.

In the table at the top of the screen, when you click on [+] next to a Component, all associated Alternatives entered for the Component are displayed right below the Component.

The following flowchart illustrates the typical process for Components and Alternatives, and Recommendations, or more correctly, Components/Recommendations and Alternatives.



1. ADD COMPONENT: The Preparer starts by adding a Component (e.g., “Original Refrigerators”). In this example, this Component represents a set of older refrigerators that were installed at the time of original construction.

2. RECOMMENDATION: As part of adding a Component, the Preparer also *recommends* the action to be taken (repair, replace, etc.), when the action should occur (“end of useful life” or “now”), the class of work, whether it is a critical repair ([Life Safety](#) or Accessibility Remedy) and how many months it will take for the repair/replacement to be completed, and for Future Repairs, whether the repair/replacement will be spread out over more than one year (duration).

3. ALTERNATIVES: The Preparer then assigns replacement Alternatives for that Component. They can do this using one of the following options:

A. ADD NEW ALTERNATIVE: The Preparer can create new Alternatives, which are automatically associated with the Component.

B. SELECT FROM EXISTING ALTERNATIVES: The Preparer can select an Alternative from those already added for the Component in the dropdown and can modify it, which is useful when the new Alternative is similar to an existing one and requires only minor edits.

C. REPLACE COMPONENT: This populates the new Alternative’s data fields to be identical to the original Component’s. This is useful when you are replacing the Component with an Alternative that is the same as the original Component.

4. DECISIONS: When the CNA is sent to the Submitter, the Submitter will review the associated Alternatives and the Preparer’s Selected Alternative. If the Submitter agrees with the Selected Alternative, no action is needed. However, the Submitter may want to override the Preparer’s selection with a different Alternative. In this example, the Decision was for the energy efficient refrigerator. This will

be covered in the [Repair Replace Decision](#) chapter.

INSTRUCTIONS ON ENTERING DATA

COMPONENTS

Sample Property 100 - User Guide
Washington, DC
Property ID
800336699
FHA# 053-11346
Status: Draft - On My Desk Validation: Validation Needed
Options ▾

Assessment Entry Validation

Property Info

- CNA Summary
- Assessment Scope
- Participants
- Utility Types & Rates

Design & Construction

- Sites
- Buildings
- Unit Types
- Units & Common Spaces
- Parking
- Components, Alts & Recs
- Repair Needs Analysis

Processing Info

- Units Inspected
- Narratives & Attachments
- Financial Factors
- Repair Replace Decisions

Energy

- Current
- Historical

COMPONENTS AND ALTERNATIVES

Future Replacement Components
Critical Repair Components
Non-Critical Repair Components

Filter List By: ▾
Add New Component

Component Type	Component Name	Age/ EUL	Assessed/ Std RUL	Cost \$	Annual Utility \$
- 3.2.4.1 - Asphalt Pavement	Overlay Asphalt Parking Lot	11 / 25	- / 14	\$93,307.5	-
Alt(1): 3.2.4.1 - Asphalt Pavement	Overlay Asphalt Parking Lot	- / 25	-	\$93,307.5	-
+ 3.2.4.3 - Concrete Pavement	Repair and Maintain Concrete Parking Lot Curbs/Dumpster Pads	37 / 50	- / 13	\$15,750	-
+ 3.2.4.7 - Permeable Paving Systems (brick, concrete pavers)	Brick Pavers	4 / 30	- / 26	\$480	-

Component Definition

Green Alternative Available? (If yes, minimum of two Alternatives required)

Category: (3.2) Site Systems Sub-Category: (3.2.4) Paving, Curbing and Par... Component Type: (3.2.4.1) Asphalt Pavement

Component Name: Overlay Asphalt Parking Lot

Location: NA

Age of Component

CNA Inspection Date	Year Installed	=	Comp. Age	Default Std. EUL	Std. EUL
2021-08-03	2018	=	3	100	100

Remaining Useful Life (RUL)

Std. RUL	Assessed RUL	Total Years in Operation / Std. EUL
97		100 / 100

Explain Assessed RUL, Existing Condition

Cost of Component

Unit Cost	Unit	Quantity	Total Cost
5.000000	Gallons per ...	1.00	\$5

Component \$ per Year in Operation

Per Unit / Year	Per Comp. / Year
\$0.05	\$3732.3

11 Utility Consumption (Annual)

Utility 11A	Annual Usage 11B	Energy (kBtu)	Utility Rate	\$ per Unit	\$ per Comp.
N/A		N/A	N/A	N/A	N/A
N/A		N/A	N/A	N/A	N/A
				N/A	N/A

12 Green House Gas Emissions

Total (Metric Tons CO₂)

13 Annual Total Cost of Operation

Comp. Unit \$ per Year in Operation	+	Total Utility \$ per Unit	=	Annual TCO per Unit	x	Comp. Quantity	=	Annual TCO per Component
\$0.05		N/A		\$0.05		71775.00		\$3732.30

Delete Component **4** **3** Cancel Save Changes **2**

Repair Replacement Recommendation +

Alternatives Definition(s) +

Component and Alternative(s) Annual Comparison +

1 ADD NEW COMPONENT

8 AGE OF COMPONENT

2 SAVE COMPONENT

9 REMAINING USEFUL LIFE (RUL)

3 CANCEL CHANGES

10 COST OF COMPONENT

4 DELETE COMPONENT

11 UTILITY CONSUMPTION

5 COMPONENT DEFINITION

12 GREEN HOUSE GAS EMISSIONS

6 COMPONENT NAME

13 ANNUAL TOTAL COST OF OPERATION

7 LOCATION

BASIC COMMANDS

The screenshot shows the 'Critical Repair Components' tab. Step 1 points to the 'Add New Component' button. Step 2 points to the 'Save Changes' button. Step 3 points to the 'Cancel' button. Step 4 points to the 'Delete Component' button. A table below the buttons shows a list of components with columns for Component Type, Component Name, Age/EUL, Assessed/Std RUL, Cost \$, and Annual Utility \$.

Component Type	Component Name	Age/EUL	Assessed/Std RUL	Cost \$	Annual Utility \$
3.2.4.3 - Concrete Pavement	Traffic Calming Measures (Critical	37 / 50	0 / 13	\$2,600	-

1. ADD NEW COMPONENT

To add a new Component, click “Add New Component.”

2. SAVE COMPONENT

To save a new Component or changes made to an existing Component, click “Save Changes.”

3. CANCEL CHANGES

To cancel edits made to a Component, click “Cancel.”

4. DELETE COMPONENT

To delete an existing Component, click “Delete Component.”

DATA ENTRY FIELDS

The screenshot shows the 'Component Definition' form. Step 5 points to the 'Component Definition' header. Step 5A points to the 'Green Alternative Available?' checkbox. Step 5B points to the 'Category' dropdown menu. Step 5C points to the 'Sub-Category' dropdown menu. Step 5D points to the 'Component Type' dropdown menu. The form shows the following values: Category: (3.2) Site Systems; Sub-Category: (3.2.4) Paving, Curbing and Par...; Component Type: (3.2.4.3) Concrete Pavement.

5. COMPONENT DEFINITION

Identify the following:

5A. First identify if there is a Green (energy efficient) Alternative available for the component.

5B. Select a Category.

5C. Next select a Sub-Category. This is dependent on the selected Category.

5D. Then select a Component Type to select the specific Component. This is dependent on the selected Need Item.

Note: You can skip the “Category” and “Sub-category” dropdowns by directly selecting the “Component Type.”

Component Name **6**

Traffic Calming Measures (Critical Repair)

Location **7**

Drive lanes

Age of Component

CNA Inspection Date 8	Year Installed	=	Comp. Age	Default Std. EUL 8B	Std. EUL 8C
2021-08-03 8A	2018		3	100	100

6. COMPONENT NAME

Enter a name for the Component. This name should be descriptive enough to distinguish it from other Components of the same Component Type. For guidance on naming Components, please see [Selecting Component Names](#) in the More Information section at the end of this chapter.

7. LOCATION

Enter the location of the Component. This should be descriptive enough to distinguish it from other related Components. For more information, see [The Location Field](#) in the More Information section at the end of this chapter.

8. AGE OF COMPONENT

Enter the date the component was installed. The e-Tool will automatically calculate the component age based on the installation date and the effective date of the CNA. It will also show the Standard EUL of the component.

8A. CNA Inspection Date

This should reflect the CNA Effective Date of the property – from the Assessment Scope tab.

8B. Default Std EUL (read-only)

Default value for the Standard Estimated Useful Life, set based on individual Components.

8C. STD EUL (editable)

Enter the Estimated Useful Life of the Component based on the selected measure, if different from the Default Std. EUL.

Remaining Useful Life (RUL) **9**

Std. RUL	Assessed RUL	Total Years in Operation / Std. EUL
13	<input type="text" value="0"/>	50 / 50

Explain Assessed RUL, Existing Condition

Critical Repair

9. REMAINING USEFUL LIFE (RUL)

If you think that the RUL is greater or less than the standard RUL based on your best professional judgment, enter your estimate of the Assessed RUL. If the assessed RUL is different from the standard RUL, enter a comment justifying the difference.

Cost of Component **10**

Unit Cost 10A	Unit 10B	Quantity 10C	Total Cost
2600.0000	Each x	1.00	\$2600

Component \$ per Year in Operation

Per Unit / Year	Per Comp. / Year
\$52	\$52

10. COST OF COMPONENT

10A. ORIGINAL UNIT COST

Enter the estimated original installed cost of the existing Component based on the unit of measure. This figure is used to estimate the value of RUL (remaining useful life) for the cost-benefit analysis of Alternatives. This should reflect the cost of a single unit.

10B. UNIT OF MEASURE

Enter the best unit measure of the quantity of the Component. For example, flooring could be measured in "Square Feet" while a refrigerator would be measured as "Each."

10C. QUANTITY

Enter the quantity of the Component based on the selected measure.

Note: The Component \$ per Year fields will auto-populate based on what was entered for the Original Unit Cost, Unit of Measure, and Quantity.

Utility Consumption (Annual) **11**

Utility 11A	Annual Usage 11B	Energy (kBtu)	Utility Rate	\$ per Unit	\$ per Comp.
Common Electricity - KWH	500	1706.00	\$0.1	\$50	\$1200
N/A		N/A	N/A	N/A	N/A
				\$50	\$1200

11. UTILITY CONSUMPTION

11A. UTILITY TYPE

If the Component has an associated utility cost, enter the relevant type of utility. Select from the utility types entered in the Utility Types & Rates screen.

Note: For Components that do not use energy but help to reduce consumption (e.g., insulation), select the utility that will be most affected.

11B. ANNUAL USAGE

Enter the estimated usage per year based on the selected type of utility. If there are multiple units under this Component, then calculate this based on a single unit.

Note: For Components that conserve energy, enter a negative value for the utility type selected to indicate reduced consumption.

Green House Gas Emissions **12**

Total (Metric Tons CO²)

12. GREEN HOUSE GAS EMISSIONS

For components that emit Green House Gas, enter the total amount of Emissions in Metric Tons CO².

Note: This is required only for CNAs prepared for the Green and Resilient Retrofit Program (GRRP).

Annual Total Cost of Operation **13**

Comp. Unit \$ per Year in Operation	+	Total Utility \$ per Unit	=	Annual TCO per Unit	x	Comp. Quantity	=	Annual TCO per Component
\$52		N/A		\$52.00		1.00		\$52.00

13. ANNUAL TOTAL COST OF OPERATION

The annual total cost of operation (TCO) will auto-populate based on the Component cost, quantity, and utility consumption entered in the previous fields. It will show the total cost of the Component per year, the associated utility costs per year, the TCO, the Component quantity, and the annual TCO per Component.

INSTRUCTIONS ON ENTERING DATA

REPAIR REPLACEMENT RECOMMENDATIONS

Repair Replacement Recommendation

3 Action

Replace × ▾

4 When

End of C... × ▾

5 Class of Work

Select... ▾

9 Critical Repairs

Life Safety **9A**

Accessibility Remedy **9B**

Relevant Accessibility Statute **9C**

Select... ▾

6 Location

NA

7 Months to Complete

8 Scope of Work Description (Detailed Comments)

Scope of Accessibility Remedy **9D**

Future Replacement Schedule - Relative Year (Calendar View)

Comp. RUL	Replace Yr. per RUL	Duration #	1st Replacement Start Year	1st Replacement End Year
13	RY 13 (2035)	0		

2 Cancel

1 Save New Recommendation

1 SAVE RECOMMENDATION

2 CANCEL CHANGES

3 ACTION

4 WHEN

5 CLASS OF WORK

6 LOCATION

7 MONTHS TO COMPLETE

8 SCOPE OF WORK DESCRIPTION
(DETAILED COMMENTS)

9 CRITICAL REPAIRS

BASIC COMMANDS

The first screenshot shows a form with two buttons: 'Cancel' and 'Save Changes'. A green circle with the number '1' is positioned below the 'Save Changes' button, with a line pointing to it. The second screenshot shows the same form, but with a green circle with the number '2' positioned below the 'Cancel' button, with a line pointing to it.

1. SAVE RECOMMENDATION

To save a Recommendation or changes made to an existing Recommendation, click “Save Changes.”

2. CANCEL CHANGES

To cancel edits made to a Recommendation, click “Cancel.”

DATA ENTRY FIELDS

The screenshot shows a form titled 'Repair Replacement Recommendation'. A large green circle with the number '3' is on the left, with a line pointing to the 'Action' dropdown menu. Below this, four smaller green circles with callouts '3A', '3B', '3C', and '3D' point to the 'Add New', 'One-time Repair', 'Repair', and 'Replace' options in the 'Action' dropdown, respectively.

3. ACTION

Select one of the following for the Component.

3A. ADD NEW

Select to install a Component that did not previously exist.

3B. ONE-TIME REPAIR

A One-Time Repair is the same as a Repair except that it has no recurring cycle and usually is an immediate repair (i.e., something is broken and needs to be fixed immediately).

3C. REPAIR

Select if an existing Component is to be resurfaced, refinished, or repaired back to its functional state. This option also applies to items where periodic overhaul and replacement of subcomponents is customary (e.g., elevators, boilers). This type of repair is cyclical and reoccurs at the end of the EUL that the Preparer defines.

3D. REPLACE

Select to replace with a new Component performing the same or an augmented function.

ment Recommendation

4 When Class of Work Critical Repairs

End of C... × ▲ Select... Relevant Accessibility Statute

End of Cycle 4B to Complete

Now 4A

Life Safety

Accessibility Remedy

Select...

4. WHEN

Select one of the following options or when the recommended action should occur.

4A. NOW

This indicates the selected “action” should take place in the immediate future. The specific timing may vary according to the Approving Agency’s program requirements.

4B. END OF CYCLE

The selected “action” should occur at the end of the Remaining Useful Life (RUL) of the existing Component. The Submitter may also want to distribute the cost of the selected “action” over a period of years rather than a single year in which the RUL of the existing Component(s) expires.

5

Class of Work Critical Repairs

Select... ▲ Relevant Accessibility Statute

Repair

Level 1 Alteration

Level 2 Alteration

Level 3 Alteration

Life Safety

Accessibility Remedy

Select...

Scope of Accessibility Remedy

5. CLASS OF WORK

Select the appropriate class of work from the “Class of Work” dropdown list. Select either “Repair,” “Level 1 Alternative,” “Level 2 Alternative,” and “Level 3 Alternative”. See the [Class of Work](#) item in the More Information section for details.

6

Location Months to Complete

Throughout site 2

6. LOCATION

Describe the location and other specifications for the work, to ensure that it can be easily recognized and is inspectable.

7

Location Months to Complete

Throughout site 2

7. MONTHS TO COMPLETE

Enter an estimated number of months that represents the minimum elapsed time from the start of any work to the completion of the recommended action. This is required when “Now” is selected.

Scope of Work Description (Detailed Comments) **8**

9

Class of Work
 Select... ▼

Critical Repairs

Life Safety **9A**

Accessibility Remedy **9B**

Relevant Accessibility Statute **9C**
 Select... ▼

...s to Complete

...ments)

Scope of Accessibility Remedy **9D**

8. SCOPE OF WORK DESCRIPTION (DETAILED COMMENTS)

Enter detailed comments to justify your recommendation.

9. CRITICAL REPAIRS

9A. LIFE SAFETY

Select the checkbox to indicate whether the recommended action is intended to address a life safety issue. See [Life Safety Item](#) in the More Information section for details.

9B. ACCESSIBILITY REMEDY

Select the checkbox to indicate whether the recommended action is intended to address an accessibility deficiency. “YES” identifies the Preparer’s recommended repair or replacement as a remedy for a deficiency identified by the Preparer when analyzing whether a unit, building, or site conforms to the applicable accessibility statutes and regulations. Selecting “YES” designates this particular repair, replace, or add new action selection as part of a Corrective Action Plan to address identified accessibility deficiencies.

9C. RELEVANT ACCESSIBILITY STATUTE

If the Alternative is indicated as an accessibility remedy, select the relevant accessibility statute that was not met. See [Relevant Accessibility Statute](#) in the More Information section for details.

9D. SCOPE OF ACCESSIBILITY REMEDY

Describe the specific requirements of the statute that were not met at the property, such as “UFAS Section ##” or “useable kitchen, min 40” clearance required.” See [Requirement\(s\) Not Met](#) in the More Information section on what constitutes an unmet requirement.

INSTRUCTIONS ON ENTERING DATA

ALTERNATIVES DEFINITION(S)

Alternatives Definition(s)

Alternative 1 Definition Selected Alternative Green Alternative (Sustainable Indicator)

Select from existing Alternatives OR

Alternative Name

Alt. Component Type EUL Standard

Comments or explain changed component type and/or edited EUL

Cost of Alternative Component

Unit Cost	Unit	Quantity	Total Cost
<input type="text" value="1400.0000"/>	Each	<input type="text" value="8"/>	\$11200

Component \$ per Year in Operation

Per Unit / Year	Per Comp. / Year
\$93.33	\$746.67

Utility Consumption (Annual) Utility Costs (Annual)

Utility	Annual Usage	Energy (kBtu)	Utility Rate	\$ per Unit	\$ per Comp.
Tenant Electricity - KWH	<input type="text" value="4380.0000"/>	14944.56	\$0.1	\$438	\$3504
N/A	<input type="text" value=""/>	N/A	N/A	N/A	N/A
				\$438	\$3504

ALTERNATIVE 1

Green House Gas Emissions **15**

Total (Metric Tons CO²)

1.90

Annual Total Cost of Operation **16**

Comp. Unit \$ per Year in Operation	+	Total Utility \$ per Unit	=	Annual TCO per Unit	x	Comp. Quantity	=	Annual TCO per Component
\$93.33		\$438		\$531.33		8		\$4250.67

4 Delete Alternative **3** Cancel **2** Save Changes

+ Alternative 2 Definition Edit Alternative

+ Alternative 3 Definition Add Alternative **1**

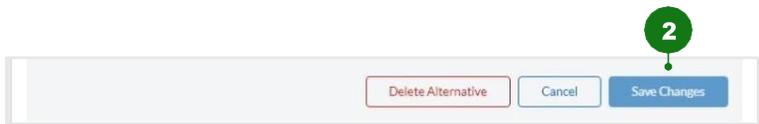
- 1** CREATE NEW ALTERNATIVE
- 2** SAVE ALTERNATIVE
- 3** CANCEL CHANGES
- 4** DELETE ALTERNATIVE
- 5** SELECTED ALTERNATIVE
- 6** GREEN ALTERNATIVE/ SUSTAINABLE INDICATOR
- 7** ALTERNATIVE CREATION SHORTCUTS
- 8** ALTERNATIVE NAME
- 9** ALTERNATIVE'S COMPONENT TYPE
- 10** EUL STANDARD/EDITED
- 11** COMMENTS OR EXPLAIN CHANGED COMPONENT TYPE AND/OR EUL
- 12** COST OF ALTERNATIVE COMPONENT
- 13** UTILITY CONSUMPTION (ANNUAL)
- 14** UTILITY COSTS (ANNUAL)
- 15** GREEN HOUSE GAS EMISSIONS
- 16** ANNUAL TOTAL COST OF OPERATION PER COMPONENT
- 17** COMPONENT AND ALTERNATIVE(S) ANNUAL COMPARISON

BASIC COMMANDS



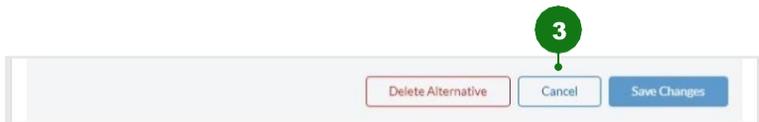
1. CREATE NEW ALTERNATIVE

To create a new Alternative, click “Alternatives Definition(s)” and click “Add Alternative.” You may create up to five Alternatives by clicking the “Add Alternative” button.



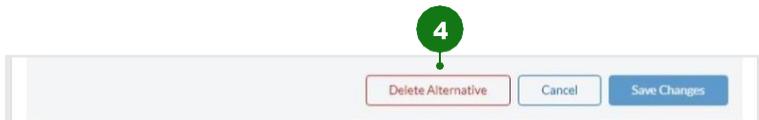
2. SAVE ALTERNATIVE

To save a new Alternative, click “Save Alternative.” To save edits made to an existing Alternative, click “Save Changes.”



3. CANCEL CHANGES

To cancel edits made to an Alternative, click “Cancel.”



4. DELETE ALTERNATIVE

To delete an existing Alternative, click “Delete Alternative.”

DATA ENTRY FIELDS



5. SELECTED ALTERNATIVE

This box should not be checked until all of the Alternatives for the Component have been created. Once all of the Alternatives have been created, click on the box for the Alternative you want to recommend.

Note: You can change the “Recommended” Alternative between multiple Alternatives without losing the Recommendation information entered, e.g., Action, When, [Life Safety](#), etc.

DATA ENTRY FIELDS

Alternative 1 Definition

Select from existing Alternatives

Selected Alternative

Green Alternative (Sustainable Indicator)

6

6. GREEN ALTERNATIVE/ SUSTAINABLE INDICATOR

Check this box if an Alternative has a notably longer-than-typical useful life, and/or is energy- or resource-efficient.

Select from existing Alternatives

Select...

OR

Replicate Component

7A

7. ALTERNATIVE CREATION SHORTCUTS

7A. SELECT FROM EXISTING ALTERNATIVES

Select from existing Alternatives if there are already Alternatives added for the Component, using the dropdown list. This auto-populates the new Alternative's data fields with the original Alternative's information. This is useful when the new Alternative is similar to an existing Alternative and only requires minor edits. If you are editing the Alternative, be sure to edit the Alternative's name so that it is unique from any existing Alternative.

Select from existing Alternatives

Select...

OR

Replicate Component

7B

7B. REPLICATE COMPONENT

Clicking this button auto-populates the new Alternative's data fields with the original Component's definitions identically. This is useful when you are replacing a Component with an Alternative that is the same as the original Component. If you need to create a completely new Alternative, proceed to the next step.

Alternative Name 8
1.5-Ton A/C Unit, Replace (Non-Critical Repair)

8. ALTERNATIVE NAME

Enter a name for the Alternative. This may be generic or may be a specific brand, make, size, color, or similarly specific description. Alternatives for anticipated immediate repairs and replacements must be specific since the resulting list of immediate repairs must be inspectable. Future repairs (included in the Reserve for Replacement [RfR] Schedule) may be generic since timing and exact location are likely to be uncertain.

Alt. Component Type 9 EUL Standard
{3.4.3.1.2} Electric AC condenser, pad or rooftop × 15

9. ALTERNATIVE'S COMPONENT TYPE

Select the relevant Component Type. The default is based on the Need Category and Need Item that were previously selected for the related Component, but it can be changed using the dropdown menu.

Alt. Component Type EUL Standard 10
{3.4.3.1.2} Electric AC condenser, pad or rooftop × 15

10. EUL STANDARD/EDITED

This is the Preparer's best professional judgment of the actual EUL (estimated useful life) of the Alternative based on its quality that may not be consistent with the auto-populated standard value in the EUL table. By default, the label will say "EUL Standard" and the field will display the standard number. When this field is edited, the label will change to "EUL Edited."

Comments or explain changed component type and/or edited EUL **11**

11. COMMENTS OR EXPLAIN CHANGED COMPONENT TYPE AND/OR EUL

Only enter a comment if the EUL is edited from the system-generated EUL. When the standard EUL value is edited, it becomes mandatory to complete this field.

Cost of Alternative Component **12**

Unit Cost	Unit	Quantity	Total Cost
1400.0000	Each × ▾	8	\$11200

12. COST OF ALTERNATIVE COMPONENT

12A. UNIT COST

Enter the installed cost of the unit in dollars. This should reflect the cost of a single unit.

Cost of Alternative Component

Unit Cost	Unit	Quantity	Total Cost
1400.0000	Each × ▾	8	\$11200

12A

12B. UNIT

Enter the best unit to measure the quantity of the Alternative. For example, flooring could be measured in “Square Feet” while a refrigerator would be measured as “Each.”

Cost of Alternative Component

Unit Cost	Unit	Quantity	Total Cost
1400.0000	Each × ▾	8	\$11200

12B

12C. QUANTITY

Enter the quantity of the Component based on the selected measure.

Cost of Alternative Component

Unit Cost	Unit	Quantity	Total Cost
1400.0000	Each × ▾	8	\$11200

12C

Utility Consumption (Annual)		Utility Costs (Annual)			
Utility	Annual Usage	Energy (kBtu)	Utility Rate	\$ per Unit	\$ per Comp.
Tenant Electricity - KWH	4380.0000	14944.56	\$0.1	\$438	\$3504

Utility Consumption (Annual)		Utility Costs (Annual)			
Utility	Annual Usage	Energy (kBtu)	Utility Rate	\$ per Unit	\$ per Comp.
Tenant Electricity - KWH	4380.0000	14944.56	\$0.1	\$438	\$3504

Utility Consumption (Annual)		Utility Costs (Annual)			
Utility	Annual Usage	Energy (kBtu)	Utility Rate	\$ per Unit	\$ per Comp.
Tenant Electricity - KWH	4380.0000	14944.56	\$0.1	\$438	\$3504

Utility Consumption (Annual)		Utility Costs (Annual)			
Utility	Annual Usage	Energy (kBtu)	Utility Rate	\$ per Unit	\$ per Comp.
Tenant Electricity - KWH	4380.0000	14944.56	\$0.1	\$438	\$3504
N/A		N/A	N/A	N/A	N/A
				\$438	\$3504

Green House Gas Emissions	
Total (Metric Tons CO ₂)	
1.90	

Annual Total Cost of Operation				
Comp. Unit \$ per Year in Operation	+	Total Utility \$ per Unit	=	Annual TCO per Unit
\$93.33		\$438		\$531.33
x Comp. Quantity				
= Annual TCO per Component				
8				
\$4250.67				

13. UTILITY CONSUMPTION (ANNUAL)

13A. UTILITY CONSUMPTION

Using the dropdown, select the relevant type of utility. This is populated by utility types entered in the Utility Types & Rates screen. You can choose up to two utilities, which is useful when a component uses both electricity and water.

13B. ANNUAL USAGE

Enter the estimated usage per year based on the selected type of utility. If there are multiple units under this Component, then calculate this based on a single unit.

14. UTILITY COSTS (ANNUAL)

This is based on the rate entered in the Utility Types & Rates screen for the selected utility type. This is read-only.

15. GREEN HOUSE GAS EMISSIONS

For components that emit Green House Gas, enter the total amount of Emissions in Metric Tons CO₂.

Note: This is required only for CNAs prepared for the Green and Resilient Retrofit Program (GRRP).

16. ANNUAL TOTAL COST OF OPERATION PER COMPONENT

This is auto-calculated by multiplying the annual total cost of operation by quantity and is read only.

$$\text{Annual TCO per Component} = \text{quantity} \times \left(\frac{\text{Original Unit Cost}}{\text{Assessed RUL}} \right) + (\text{utility rate} \times \text{usage/year})$$

Note: Information below is based on the entire quantity of the Component & Alternative, not per Unit

Component	Total Cost of Component	Annual Calculations				
		\$ Utility	Total \$ of Operation	Energy Usage (kBtu)	Water Usage (Gal)	Green House Gas (MTCO ₂)
Orig. Component	\$11200.00	\$3504.00	\$4304.00	119556.48	N/A	15.20
1.5-Ton A/C Unit, Replace (Non-Critical Repair)	\$11200.00 (0)	\$3504.00 (0)	\$4250.67 (-53.33)	119556.48 (0)	N/A	15.20 (0)
Dave Lennox Signature Series SL28XCV Series 1.7 tons ENERGY STAR	\$12250.00 (+1050.00)	\$2100.00 (-1404.00)	\$2916.67 (-1387.33)	71652.00 (-47904.48)	N/A	N/A

17. COMPONENT AND ALTERNATIVE(S) ANNUAL COMPARISON

For each component, you can select the [+] sign next to Component and Alternative(s) Annual Comparison and view the key metrics between a Component and its associated Alternatives. The information is based on the entire quantity of the Component and Alternative, not per Unit. This table describes the following:

A. DELTA (+ OR - ###)

The differences in value between the Component and its associated Alternatives are displayed with the parenthesis (), as + or – delta #.

B. COST \$ PER COMPONENT

This is the total cost based on the quantity and per unit cost of the Component.

C. ENERGY USAGE IN kBtu

All energy consuming fuel and utility types (e.g., electricity) are converted into kBtu based on EPA's standard conversion ratios to allow direct comparison.

D. ANNUAL TCO (TOTAL \$ OF OPERATION)

By dividing the (delta) \$ per Component by annual (delta) of TCO, you can calculate the payback period between the Component and its Alternative(s). In the example shown, the payback period would be as follows:

Energy Efficient Boiler

$$\frac{\text{(delta) \$ per Component} = \$2,900}{\text{Annual (delta) of TCO} = 506} = 5.73 \text{ years}$$

MORE INFORMATION

COMPONENTS

MORE ABOUT EUL (ESTIMATED USEFUL LIFE)

HUD and USDA chose the standard outline for CNAs published in the American Society for Testing Materials (ASTM) standard 2018-08 to create a numbering system for categorizing components. This is the Standard Table of Estimated Useful Life. This table assigns a Standard Estimated Useful Life for Component Types. The table provides separate values for Family properties and Elderly properties for each Component Type.

When adding a Component, the Preparer may specify the Component's **Assessed** Remaining Useful Life (RUL) when s/he/they judges the actual observed condition or durability of the item to be different from the **Standard** RUL. The **Standard** RUL is the number of years remaining calculated from the age of the Component subtracted from the Standard EUL of the Component Type to which the Component belongs.

SELECTING COMPONENT NAMES

Creating Components according to their characteristics and naming them appropriately is an effective way of organizing the Components at the property. For example, the property may have 15 cubic feet (CF) refrigerators in some units and 18 CF refrigerators in other units installed at different times. In this situation, rather than simply creating one Component for "Refrigerators," it would be better to create multiple Components for refrigerators, one for each combination of refrigerator size and year of installation. For example, one of the Components for refrigerators can be "*Unit Refrigerator 15 CF 2002.*"

In properties with multiple sites and buildings, the Component name might reference the location of the item. Example: For replacement of damaged siding observed at a particular location, the Component name might be "Bad siding 200 sf 1st story, north end wall, Building 20." Likewise, different Component names may be distinguished by year of installation (e.g., 1990, 1998, 2005).

It is useful to think ahead to your eventual Alternatives and Recommendations as well. Continuing the previous example, you would need to think about whether you will be recommending replacement with the existing size of refrigerators (some units with 15 CF and some with 18 CF refrigerators). Typically, you would evaluate two Alternatives for each size of refrigerator: a sustainable Component (such as an ENERGY STAR®-rated refrigerator) and a traditional (less efficient but less expensive) Component. You might recommend replacement of all existing refrigerators at once, or you might recommend staggered replacement as each vintage of existing refrigerator reaches its end of cycle. These types of decisions might affect how you specify the Component name for the existing refrigerators.

Continuing the above example, if you recommend replacement of **all** the unit refrigerators **at the same time** using **the same Alternative**, it would be workable to specify a single Component name (perhaps named "*All Existing Unit Refrigerators*"). However, this approach would not be ideal

for two reasons: (1) if you (or the Submitter or owner) later decided on staggered replacement, or on continuing the use of refrigerators of two different sizes, you would need to re-specify the Component name for the existing refrigerators (specifying the existing refrigerators according to the year of installation and size) in order to be able to enter the appropriate Recommendations on the Repair, Replace, Add New Recommendation screen; and (2) the existing refrigerators probably use different amounts of electricity annually, so the Total Cost of Operation computation would be inaccurate if you specified a single Component name.

Similar considerations apply when utility conservation measures are proposed. Components and Alternatives must have matching utility payers in order for CNA e-Tool to calculate savings for owners as distinct from those for tenants. This consideration usually would not apply to appliances because the EUL table already segregates interior Components between common areas and tenant units. But it would apply to windows, doors, water savers, and similar Components where utility conservation measures may save energy. So, if some of these Components were located in a common space and others in tenant spaces, separate Components would be needed to separate common space items from tenant items.

Likewise, if a few refrigerators needed immediate one-time repairs even while included in a group of refrigerators scheduled for later replacement, a separate Component would be needed to identify and locate the specific, broken refrigerators. The paired Alternative would describe the repair, and the Recommendation action would be for a “one-time repair.”

UNDERSTANDING COMMON SPACES VERSUS UNIT INTERIORS

Note that the ASTM numbering system places interior Components in different sections according to whether they are used in common areas or in unit interiors. For example, common area refrigerators fall within ASTM 3.7.1.3 (Component Type is *“Refrigerator/Freezer—Common Area”*), whereas unit refrigerators fall within ASTM 3.7.2.3 (Component Type is *“Unit Refrigerator/Freezer”*).

THE LOCATION FIELD

For some types of Components (e.g., carpet, appliances) that are often replaced at unit turnover, the location for immediate repairs may be indefinite. Effort should be made to identify units where such immediate (first 12 months) repairs will be made. For example, a Preparer is performing a site visit and discovers damaged siding in one of the buildings that requires immediate replacement. The Preparer will need to clearly identify the location of the damage so that completion of this non-critical repair can be verified by inspection. The Preparer defines the location as precisely as possible: *“North elevation of Building 2, 2nd floor, damaged siding, of Unit 2E.”*

When/if follow-up inspection occurs and the location is not specific, owners will be required to provide documentation by unit.

In the case of future repairs and replacements scheduled for the estimate period, the location is often not needed, or is necessary only to distinguish one action from another similar action (e.g., replace boiler, Building A versus Building B) or where the action, timing, or other relevant characteristics are different.

RECOMMENDATIONS

ADDING A COMPONENT THAT DOESN'T EXIST

The Preparer can recommend an “add new” item (e.g., adding air conditioning to a building that is not currently air-conditioned) by identifying the item on the Components form and entering an assessed RUL of zero and then defining the appropriate Alternative (describing the item to be added), and then recommending the Alternative with an action of “add new.” The Preparer must specify a Recommendation for each Component, even if the Component will not require any repair or replacement during the estimate period.

LIFE SAFETY ITEM

A “life safety item” is defined as an issue that is an immediate risk to health and safety that requires immediate attention by the owner. “YES” places this Recommendation on the list of critical life safety repairs that the Submitter and owner must address in accordance with agency guidance, typically before the closing of a transaction or within a fixed, short-term period acceptable to the Approving Agency.

RELEVANT ACCESSIBILITY STATUTE

If an Alternative is indicated as an accessibility remedy, there are several relevant accessibility statutes that can apply. This includes: Section 504 of the Rehabilitation Act of 1973 and 24 CFR Part 8, Subpart C (HUD) or 7 CFR 15b (USDA); Fair Housing Act, indicating the design and construction requirements of the Fair Housing Amendments Act of 1988 as implemented by 24 CFR 100.205 and the Fair Housing Act Design Manual; or the Americans with Disabilities Act (ADA), indicating Title III of that Act and implementing regulations at 28 CFR Part 36.

REQUIREMENT(S) NOT MET

For HUD: When a repair or replacement is a remedy for an accessibility deficiency, the Preparer must define or describe the scoping requirement of the Accessibility rule which is violated. So, for example, in a Fair Housing Act covered unit, when a bathroom door measures less than 31.5” clear space, the scoping requirement at issue is that “all covered units must have an accessible path through the unit” and the specific deficiency is that a bathroom door has less than 31.5” clear path.

For the scoping of accessibility actions, sketches, or drawings of “as is” and “required” conditions are often necessary. Such sketches and illustrations should be provided to the Submitter to be uploaded as attachments to the CNA.

ACTION (CATEGORIES OF REPAIR)

The Assessment Tool supports the following categories of repairs.

A **Critical Repair** is specified by (1) setting *When* to “Now,” and (2) either setting the *Accessibility Indicator* to “YES” (for repairs necessary to remedy accessibility deficiencies) or setting the *Life Safety Indicator* to “YES” (for any other type of Critical Repair).

- A **Non-Critical Repair** is specified by (1) setting *When* to “Now,” and (2) selecting “NO” for both the *Accessibility Indicator* and the *Life Safety Indicator*. Non-critical repairs and replacements are those necessary or desirable for current maintenance and operation of the property,

or necessary to maintain or improve marketability.

- A **Future Repair** is specified by setting *When* to “*End of Cycle*.”
- The term **Immediate Repairs** refers to a combination of Critical Repairs and Non-Critical Repairs.

DURATION OF ACTION EXAMPLE

The following is an explanation for possible values in the Duration of Action field.

If a component scheduled to be replaced in Year 5 has a Duration of Action of 2, then the cost would be spread out evenly between years three through seven (two years prior [RUL-2], the base year, and two years after [RUL+2]). Duration of Action is most useful in estimating the probable distribution of replacement of multiples of the same generic component grouped by similar age or condition (e.g., various appliances). Such replacement of any single item (e.g., one refrigerator) among multiples of the same component would have no specific location.

Similarly, replacing roofs on six identical buildings might be distributed over three years by entering a Duration of Action of 1, thus scheduling two roofs per year for replacement beginning in the relative year before the assessed RUL of these roofs expires. This Duration of Action entry can also be used to spread the cost of a single replacement (e.g., a single boiler system) over several years when the actual year when a replacement might be needed is necessarily uncertain.

Changing the Duration or spread of costs/replacements over a shorter or longer timeframe moderates sharp changes in future costs from year to year that otherwise result from numerous replacements scheduled in a single year. This is one of the most common changes a Submitter might make to a Preparer's recommendation.

CLASS OF WORK

When the Preparer enters recommendations into the CNA, they must specify the Class of Work. The choices include Repair, Level 1 Alteration, Level 2 Alteration, and Level 3 Alteration. For a description of each of these, refer to Section 5.1.3 of the [Multifamily Accelerated Processing \(MAP\) Guide](#).

ALTERNATIVES

WHEN TO ADD MULTIPLE ALTERNATIVES

The Preparer may specify more than one Alternative to compare different options (e.g., a traditional refrigerator and a more efficient ENERGY STAR® refrigerator). While CNA e-Tool does not require more than one Alternative, except when the component has green alternatives available, Preparers will often find multiple Alternatives necessary as price/ quality options to address Components or groups of Components distinguished by variations in age, condition, size, fit, and finish. In addition, some agency programs require specification of more efficient (“sustainable,” in Assessment e-Tool terminology) Alternatives.

Sometimes multiple Components of the same Component Type will need a single Alternative. For example, multiple ages and or kinds of roofing may all be replaced at different times with a single new kind of roof. Sometimes there will be multiple Components of the same Component Type with multiple Alternatives applicable to some or all of the Components.



CHAPTER 14: REPAIR NEEDS ANALYSIS

OVERVIEW

The Repair Needs Analysis screen enables users to create and view multiple versions of Critical and Non-Critical Repair Lists and make comparisons between Components and Alternatives. The screen consists of a Repair List Comparison Table that shows the total cost of Components and Alternatives, including utility consumption.

INSTRUCTIONS ON ENTERING DATA

Sample Property 100 - User Guide
Washington, DC

Property ID: 800336699
FHA #: 053-11346

Status: Draft - On My Desk Validation: Validation Needed Options

Assessment Entry Validation

Property Info

- CNA Summary
- Assessment Scope
- Participants
- Utility Types & Rates

Design & Construction

- Sites
- Buildings
- Unit Types
- Units & Common Spaces
- Parking
- Components, Alts & Recs
- Repair Needs Analysis

REPAIR NEEDS ANALYSIS

REPAIR LIST COMPARISON TABLE

Repair	Total \$ (▲)	Annual Energy Usage in kbtu (▲)	Annual Water Usage in Gal. (▲)	Annual Total Utility \$ (▲)	Annual TCO for all Comps. \$ (▲)
Proposed List	\$232,425	71,652	0	\$2,100	\$21,765.25

Add Repair List

Update Proposed List Delete Repair List

	Total \$ (▲)	Annual Energy Usage in kbtu (▲)	Annual Water Usage in Gal. (▲)	Annual Total Utility \$ (▲)	Annual TCO for all Comps. \$ (▲)
Original Components	\$11,992	71,515.52	0	\$196,481.60	\$197,614.40
List 1	\$10,000 (-\$1,992)	37,532 (-33,983.52)	0 (0)	\$99,770 (-\$96,711.60)	\$100,770 (-\$96,844.40)

Save List
All selections must be made

CRITICAL REPAIR COMPONENTS

Component & Alternative Name	\$ Cost	Energy Usage in kbtu	Water Usage in Gal.	\$ Utility	TCO
Swimming Pool Equipment	\$10,000	37,532	0	\$99,770	\$100,770
<input checked="" type="checkbox"/> Swimming Pool Equipment	\$10,000	37,532	0	\$99,770	\$100,770
Striping and Marking	\$1,992	33,983.52	0	\$96,711.60	\$96,844.40
<input type="checkbox"/> Striping and Marking	\$1,992	0	0	\$0	\$132.80
<input type="checkbox"/> Striping and Marking A2	\$1,992	28,319.60	0	\$81,655.40	\$81,797.70

NON-CRITICAL REPAIR COMPONENTS

1 REPAIR LIST COMPARISON TABLE

2 ADD REPAIR LIST

3 CRITICAL AND NON-CRITICAL REPAIRS

Sample Property 100 - User Guide
Washington, DC

Property ID
800336699
FHA # 053-11346

Status: Draft - On My Desk Validation: Validation Needed Options

Assessment Entry Validation

Property Info

- CNA Summary
- Assessment Scope
- Participants
- Utility Types & Rates

Design & Construction

- Sites
- Buildings
- Unit Types
- Units & Common Spaces
- Parking
- Components, Alts & Recs
- Repair Needs Analysis

REPAIR NEEDS ANALYSIS

REPAIR LIST COMPARISON TABLE

Repair	Total \$ (▲)	Annual Energy Usage in kbtu (▲)	Annual Water Usage in Gal. (▲)	Annual Total Utility \$ (▲)	Annual TCO for all Comps. \$ (▲)
Proposed List	\$232,425	71,652	0	\$2,100	\$21,765.25

Add Repair List

Update Proposed List Delete Repair List

1. REPAIR LIST COMPARISON TABLE

This table is populated with a Proposed List, which consists of the Preparer's recommendations from the Components, Alternatives, and Recommendations screen. The list includes:

- Total cost of all the recommendations the Preparer made for each component. This is consistent with the Repairs displayed through the Validation tab under "Repair Needs" for both Critical and Non-Critical Repairs.
- Total annual energy usage of all recommendations in kbtu.
Note: CNA e-Tool converts all energy consuming fuel and utility types into kbtu based on EPA's standard conversion ratios to allow for direct comparison.
- Annual Water Usage in Gallons.
- Annual Total Utility Costs.
- Annual Total Cost of Operations for all Components

You can compare this list with up to three new Repair lists using different combinations of Components and Alternatives.

Sample Property 100 - User Guide
Washington, DC

Property ID: 800336699
FHA #: 053-11346

Status: Draft - On My Desk Validation: Validation Needed Options

Assessment Entry Validation

Property Info

- CNA Summary
- Assessment Scope
- Participants
- Utility Types & Rates

Design & Construction

- Sites
- Buildings
- Unit Types
- Units & Common Spaces
- Parking
- Components, Alts & Recs
- Repair Needs Analysis

REPAIR NEEDS ANALYSIS

REPAIR LIST COMPARISON TABLE

Repair	Total \$ (▲)	Annual Energy Usage in kWh (▲)	Annual Water Usage in Gal. (▲)	Annual Total Utility \$ (▲)	Annual TCO for all Comp. \$ (▲)
Proposed List	\$232,425	71,652	0	\$2,100	\$21,765.25

Add Repair List (2)

Update Proposed List Delete Repair List

	Total \$ (▲)	Annual Energy Usage in kWh (▲)	Annual Water Usage in Gal. (▲)	Annual Total Utility \$ (▲)	Annual TCO for all Comp. \$ (▲)
Original Components	\$11,992	71,515.52	0	\$196,481.60	\$197,514.40
List 1	\$10,000 (-\$1,992)	37,532 (-33,983.52)	0 (0)	\$99,770 (-\$96,711.60)	\$100,770 (-\$96,044.40)

Save List
All selections must be made

CRITICAL REPAIR COMPONENTS (3)

Component & Alternative Name	\$ Cost	Energy Usage in kWh	Water Usage in Gal.	\$ Utility	TCO
Swimming Pool Equipment	\$10,000	37,532	0	\$99,770	\$100,770
<input checked="" type="checkbox"/> Swimming Pool Equipment	\$10,000	37,532	0	\$99,770	\$100,770
Striping and Marking	\$1,992	33,983.52	0	\$96,711.60	\$96,844.40
<input type="checkbox"/> Striping and Marking	\$1,992	0	0	\$0	\$132.00
<input type="checkbox"/> Striping and Marking A2	\$1,992	20,319.60	0	\$81,655.40	\$81,797.70

NON-CRITICAL REPAIR COMPONENTS

2. ADD REPAIR LIST

To create a repair list, click “Add Repair List.”

A table will appear with two headers: “Critical Repair Components” and “Non-Critical Repair Components.” In the list, you will see for each of the Components in that category, the Component and all of its Alternatives underneath. For the new list, you must select either the Component or one of the Alternatives by checking the appropriate box. You must have at least one selection per Component.

Each new list will be added to the Repair List Comparison Table at the top of the screen. This table compares the total values of all the original Components with all the selected Alternatives that make up the selected Repair List

You can take a detailed look at each alternative Repairs List by clicking the Repair List #. A pop-up window will display the Components and their selected Alternatives that make up the alternate Critical and Non-Critical Repairs.

3. CRITICAL AND NON-CRITICAL REPAIRS

Click “Critical Repair Components” or “Non-Critical Repair Components” to view the Components and Alternatives in that particular category. The displayed values include the total cost of replacement, utility consumption and costs, and Total Cost of Operations (TCO)

NOTE: CNA e-Tool will not allow you to create duplicate lists.



CHAPTER 15: UNITS INSPECTED

OVERVIEW

Use the Units Inspected screen to enter information about which specific units were inspected. Units must be identified by the site, building, unit type, and unit number or address of the units.

The minimum sample percentage is the minimum number of units required to be inspected per the selected program's policy. This percentage is entered in the Assessment Scope section.

Units inspected should be entered after completing the Sites, Buildings, Unit Types, and Units and Common Spaces screens.

INSTRUCTIONS ON ENTERING DATA

Sample Property 100 - User Guide Washington, DC Property ID 800336699 FHA # 053-11346 Status: Draft - On My Desk Validation: Validation Needed Options

Assessment Entry Validation

Property Info

- CNA Summary
- Assessment Scope
- Participants
- Utility Types & Rates

Design & Construction

- Sites
- Buildings
- Unit Types
- Units & Common Spaces
- Parking
- Components, Alts & Recs
- Repair Needs Analysis

Processing Info

- Units Inspected
- Narratives & Attachments
- Financial Factors
- Repair Replace Decisions

Energy

- Current
- Historical

UNITS INSPECTED (15)

1 Add New Inspection Sample

Site	Building	Unit Type	Unit #	Occupancy Status	Inspection Status
Sample Site 100	Building 117 - 119	2-Bed/2-Bath - 1,015 SF	719-202	Occupied	Inspected
Sample Site 100	Building 117 - 119	2-Bed/2-Bath - 1,015 SF	717-103	Occupied	Inspected
Sample Site 100	Building 117 - 119	2-Bed/2-Bath - 1,015 SF	717-202	Occupied	Inspected
Sample Site 100	Building 117 - 119	2-Bed/2-Bath - 1,015 SF	719-102	Occupied	Inspected
Sample Site 100	Building 101 - 107	2-Bed/2-Bath - 1,015 SF	703-102	Occupied	Inspected

Inspection Sample Information

5 Site: Sample Site 100

6 Building: Building 117 - 119

7 Unit Type: 2-Bed/2-Bath - 1,015 SF

8 Unit Information

8A Unit Number: 719-202

8B Unit Floor: 2

8C Occupancy Status: Occupied

8D Ground Floor?: NO

8E Inspection Status: Inspected

9 Accessibility Compliance

9A Fair Hsg Act Covered Unit?: No

9B Accessible Path Needed?: No

9C Fair Hsg Act Compliant?: YES

9D Accessible Path Exists?: YES

9E 504/UFAS Compliance: None

9F Comments

4 Delete Inspection Sample

3 Cancel

2 Save Changes

- 1 ADD NEW INSPECTION SAMPLE
- 2 SAVE
- 3 CANCEL
- 4 DELETE
- 5 SITE
- 6 BUILDING
- 7 UNIT TYPE
- 8 UNIT INFORMATION
- 9 ACCESSIBILITY COMPLIANCE

BASIC COMMANDS

Sample Property 100 - User Guide
Washington, DC

Property ID: 800336699
FHA #: 053-11346

Status: Draft - On My Desk Validation: Validation Needed Options

Assessment Entry Validation

Property Info

CNA Summary

UNITS INSPECTED (15)

Site	Building	Unit Type	Unit #	Occupancy Status	Inspection Status
------	----------	-----------	--------	------------------	-------------------

Add New Inspection Sample

1. ADD NEW INSPECTION SAMPLE

Click “Add New Inspection Sample” to add a new inspected unit. Enter all fields in the Inspection Sample Information section prior to clicking “Save Changes” at the bottom of the screen.

Current

Historical

Delete Inspection Sample

Cancel Save Changes

2. SAVE

Click “Save Changes” to save a new or edited inspection sample.

Current

Historical

Delete Inspection Sample

Cancel Save Changes

3. CANCEL

Click “Cancel” to undo any changes made to an existing inspection sample.

Current

Historical

Delete Inspection Sample

Cancel Save Changes

4. DELETE

Click “Delete Inspection Sample” to remove a saved inspection sample.

DATA ENTRY FIELDS

Unit Types

Units & Common Spaces

Parking

Components, AIs & Recs

Inspection Sample Information

Site Building Unit Type

Sample Site 100 Building 117 - 119 2-Bed/2-Bath - 1.015 SF

5. SITE

Select the site that the inspected unit belongs to.

Unit Types

Units & Common Spaces

Parking

Components, AIs & Recs

Inspection Sample Information

Site Building Unit Type

Sample Site 100 Building 117 - 119 2-Bed/2-Bath - 1.015 SF

6. BUILDING

Select the building in which the inspected unit is located.

Unit Types

Units & Common Spaces

Parking

Components, AIs & Recs

Inspection Sample Information

Site Building Unit Type

Sample Site 100 Building 117 - 119 2-Bed/2-Bath - 1.015 SF

7. UNIT TYPE

For each unit inspected, select the unit type.

The screenshot shows a software interface with a sidebar on the left and a main content area. The sidebar has several radio button options: 'onents, Alts & Recs', 'r Needs Analysis', 'Info', 'Inspected', 'tives & Attachments', 'cial Factors', and 'r Replace Decisions'. The 'Info' section is expanded, and the 'Inspected' option is selected. The main content area is titled 'Unit Information' and contains several input fields:

- 8A** Unit Number: A text input field containing '719-202'.
- 8B** Unit Floor: A dropdown menu showing '2'.
- 8C** Occupancy Status: A dropdown menu showing 'Occupied'.
- 8D** Ground Floor?: A dropdown menu showing 'NO'.
- 8E** Inspection Status: A dropdown menu showing 'Inspected'.

 A large callout '8' is positioned at the top of the 'Unit Information' section.

8. UNIT INFORMATION

Enter information about the specific unit that was inspected.

8A. UNIT NUMBER

Typically, this would be the address of the unit.

8B. UNIT FLOOR

Identify the floor of the building in which the inspection sample took place.

8C. OCCUPANCY STATUS

Indicate whether the unit is “Vacant” or “Occupied.”

Note: “Vacant” includes other common descriptions such as “down,” “not ready,” and “model” units.

8D. GROUND FLOOR?

Indicate whether the unit is located on a ground floor. A “ground floor” is any floor with an entry door accessible at grade, even if accessed by a ramp from a point of arrival to the building. There may be more than one “ground floor” to a building in some cases.

8E. INSPECTION STATUS

Select one of the following options:

- “Inspected.” The Preparer was able to enter and complete the inspection.
- “Unable to Enter.” The unit was selected for inspection but the Preparer was not able to enter or was unable to complete an inspection for other reasons.
- “Prescribed.” The Preparer was required by guidance or directed by the agency to inspect this particular unit (not randomly selected) and did so (e.g., complying with a requirement to inspect all vacant units).

Accessibility Compliance 9

Fair Hsg Act Covered Unit? Accessible Path Needed?

No 9A No 9B

Fair Hsg Act Compliant? Accessible Path Exists? 504/UFAS Compliance

YES * YES > None <

Comments

9. ACCESSIBILITY COMPLIANCE

Enter information about the accessibility compliance of the unit inspected.

9A. FAIR HOUSING ACT COVERED UNIT?

This is an auto-generated field that indicates whether the inspected unit is a covered unit as defined by the Fair Housing Amendments Act of 1988 and its implementing regulation at 24 CFR 100.201.

9B. ACCESSIBLE PATH NEEDED?

This is an auto-generated field that indicates whether an accessible path is required. See [HUD Definitions of Accessible Path](#) and [USDA Definitions of Accessible Path](#) for more information.

9C. FAIR HOUSING ACT COMPLIANT?

Indicate whether the unit meets the design and construction requirements of the Fair Housing Amendments Act of 1988, as defined at 24 CFR 100.205, and further detailed in the Fair Housing Act Design Manual, published March 6, 1991.

9D. ACCESSIBLE PATH EXISTS?

Indicate whether an accessible path for the unit exists.

9E. 504/UFAS COMPLIANCE

Indicate whether the unit is an accessible unit as defined by 24 CFR Part 8 (HUD) or 7 CFR 15b (USDA). See [More on 504/UFAS Compliance](#) for more information. There are three available selections:

- “Mobility.” The unit complies fully with the requirements for a unit accessible to a person with mobility impairment.
- “Sensory.” The unit complies fully with the requirements for a unit accessible to a person with sensory (e.g., vision, hearing) impairments. *Note: For HUD properties, sensory-compliant units are counted separately from the mobility-accessible unit count.*
- “None.” The unit does not comply with either the “Mobility” or “Sensory” requirements.

9F. COMMENTS

Enter comments concerning the conditions observed in the unit and when any applicable accessibility requirements are not met.

MORE INFORMATION

HUD DEFINITIONS OF ACCESSIBLE PATHS

HUD's [Mortgagee Letter 2012-25](#), Appendix 5, states: For the purposes of the Fair Housing Act, an "accessible route" is defined as a "continuous unobstructed path connecting accessible elements and spaces in a building or within a site" negotiable by a person with a severe disability using a wheelchair and that is also safe and usable by persons with other disabilities (24 CFR 100.201). Any route that complies with American National Standards Institute (ANSI) A117.1-1986 or a comparable standard is an accessible route.

For Section 504, [24 CFR 8.3](#) defines an "accessible route" as a continuous unobstructed path connecting accessible elements and spaces in a building or facility that complies with the space and reach requirements of applicable standards prescribed by 24 CFR 8.32. Currently, UFAS is the standard under 24 CFR 8.32.

USDA DEFINITIONS OF ACCESSIBLE PATH

Currently, UFAS is USDA's standard under 7 CFR 15b.19. Per Rural Development's regulations, projects ready for occupancy on or before March 13, 1991 are required to meet UFAS requirements of at least one accessible route connecting accessible buildings, facilities, and spaces elements (including parking and passenger loading) on the same site (UFAS 4.1.1.(1) & (2)). Projects ready for occupancy after March 13, 1991 are required to meet the Fair Housing Act (24 CFR 100.201) standard. Any route that complies with ANSI A117.1-1986, or comparable standards, is an accessible route.

MORE ON 504/UFAS COMPLIANCE

For HUD properties, compliance with both mobility and sensory requirements in a single unit may be noted in Comments, but only one form of compliance may be recognized. This is because the HUD regulation does not permit a single unit to be counted toward both the required 5% mobility set-aside and the 2% sensory set-aside.

FAIR HOUSING ACT COVERED UNIT

This auto-generated field results from the data entered for year built. For certain built-years (i.e., 1990, 1991, and 1992), the field considers occupancy and permit dates, all of which define a building as a "covered" building. In addition, this field considers whether the building does or does not have an elevator. If the building has an elevator, then all units in the building are covered units. If the building does not have an elevator, then only ground floor units are covered units.



CHAPTER 16: NARRATIVES AND ATTACHMENTS

OVERVIEW

The Narratives and Attachments screen of the CNA is where users enter descriptions of the condition of the property's physical attributes, or other items that may require commentary.

Note: Recitation of federal rules (e.g., on accessibility) are not needed unless a specific provision is at issue and its application to an observed circumstance or deficiency at a property needs description. This screen provides an optional space to input any narrative that is pertinent to the CNA and is in addition to the information already provided in previous screens. The narrative sections on this screen are organized in accordance with the standard outline for CNAs published in ASTM 2018-08. Alternative outlines or presentation order are not permitted.

INSTRUCTIONS ON ENTERING DATA

The screenshot shows the 'NARRATIVES & ATTACHMENTS' section of a software interface. On the left is a sidebar with a tree view of categories: Property Info, Design & Construction, Processing Info, and Energy. The main area is titled 'NARRATIVES & ATTACHMENTS' and contains an 'ASTM Outline Topics' list, a rich text editor for '1.0 - Executive Summary', an 'Attachments (3)' table, and a filter section at the bottom. Eight green callout circles with numbers 1 through 8 point to specific UI elements: 1 points to the 'ASTM Outline Topics' header, 2 to the 'Save Changes' button, 3 to the 'Cancel Changes' button, 4 to the 'Add New Attachment' button, 5 to a delete icon, 6 to a 'Narrative Topic Section' dropdown, 7 to an 'Attachment Type Name' dropdown, and 8 to the 'Filter list by...' dropdown.

1 SELECTING ASTM OUTLINE TOPIC

5 DELETE ATTACHMENT

2 SAVE CHANGES

6 NARRATIVE TOPIC SECTION

3 CANCEL CHANGES

7 ATTACHMENT TYPE NAME

4 ADD NEW ATTACHMENT

8 ATTACHMENT FILTERS

BASIC COMMANDS

Assessment Entry Validation

Property Info

- CNA Summary
- Assessment Scope
- Participants
- Utility Types & Rates

NARRATIVES & ATTACHMENTS

Expand

ASTM Outline Topics

- 1.0 - Executive Summary
- 2.0 - Purpose & Scope
- 3.1 - Overall General Description

Components, AIs & Recs

- Components, AIs & Recs
- Repair Needs Analysis

Processing Info

- Units Inspected
- Narratives & Attachments

Cancel Changes Save Changes

Components, AIs & Recs

- Components, AIs & Recs
- Repair Needs Analysis

Processing Info

- Units Inspected
- Narratives & Attachments

Cancel Changes Save Changes

1. SELECTING ASTM OUTLINE TOPIC

Use the dropdown to indicate the ASTM outline topic you are writing about.

2. SAVE CHANGES

Click “Save Changes” to save all entries and any changes made to the Narrative section.

3. CANCEL CHANGES

Click “Cancel Changes” to cancel any changes made to the Narrative section.

DATA ENTRY FIELDS

Narratives & Attachments

Financial Factors

Repair/Replace Decisions

Energy

- Current
- Historical

Attachments (3)

Cancel Changes Save Changes

Add New Attachment (Max 10MB)

Attachment	Narrative Topic Section	Attachment Type Name	
7.1 Accessibility documentation.docx	Select...	Select...	

Current

Historical

Attachment	Narrative Topic Section	Attachment Type Name	
7.1 Accessibility documentation.docx	Select...	Select...	
8.0 Needs Assessor Qualifications.docx	Select...	Select...	
3.6 Life & Fire Safety Documentation.docx	3.6 - Life & Fl... X	Evidentiary S... X	

Filter list by... Show All Cancel Changes Save Changes

Current

Historical

Attachment	Narrative Topic Section	Attachment Type Name	
7.1 Accessibility documentation.docx	Select...	Select...	
8.0 Needs Assessor Qualifications.docx	Select...	Select...	
3.6 Life & Fire Safety Documentation.docx	3.6 - Life & Fl... X	Evidentiary S... X	

Filter list by... Show All Cancel Changes Save Changes

Current

Historical

Attachment	Narrative Topic Section	Attachment Type Name	
7.1 Accessibility documentation.docx	Select...	Select...	
8.0 Needs Assessor Qualifications.docx	Select...	Select...	
3.6 Life & Fire Safety Documentation.docx	3.6 - Life & Fl... X	Evidentiary S... X	

Filter list by... Show All Cancel Changes Save Changes

Current

Historical

Attachment	Narrative Topic Section	Attachment Type Name	
7.1 Accessibility documentation.docx	Select...	Select...	
8.0 Needs Assessor Qualifications.docx	Select...	Select...	
3.6 Life & Fire Safety Documentation.docx	3.6 - Life & Fl... X	Evidentiary S... X	

Filter list by... Show All Cancel Changes Save Changes

4. ADD NEW ATTACHMENT

Select if you are uploading attachments to the Narrative section.

5. DELETE ATTACHMENT

Select this icon to delete a selected attachment.

6. NARRATIVE TOPIC SECTION

Use the dropdown to associate the selected attachment with the ASTM Outline Topic section.

7. ATTACHMENT TYPE NAME

Enter a name for the attachment.

8. ATTACHMENT FILTERS

To filter the list of attachments, use the first dropdown to select the filter criteria (file type/narrative topic/attachment name) and the second dropdown to select a specific filter option.

MORE INFORMATION

ASTM 7.1 ACCESSIBILITY

Identify which of the statutes and rules concerning accessibility for persons with disabilities apply to the property and the extent of the property's non-compliance (if any) with these requirements. Any accessibility deficiencies identified during the site inspection must be described in the CNA report. CNA reports for USDA must include an opinion of the adequacy of the property's existing Transition Plan.

For HUD projects only, the CNA must include a narrative specification of how any deficiencies will be remedied. When necessary for clarity, illustrate the deficiencies with photos and recommended remedies with scaled and dimensioned drawings or sketches. The Preparer may provide these to the Submitter to be uploaded as attachments to the CNA at submission.

***Note:** USDA projects should have Transition Plans (TPs) in place based on self-evaluations of accessibility compliance. Owners should not be required to re-do this work if it has already been done. However, if the existing TP is inadequate, then preparing the CNA provides an opportunity to assess and correct the existing TP or identify non-compliant issues that should form the basis of a TP.*

ASTM 7.2 INTRUSIVE AND OTHER EXAMINATIONS

Enter a narrative description of any intrusive methods used by the Preparer or others to complete the assessment and any further examination or study recommended but not completed. An intrusive method is when the Preparer or others must go behind walls, under floors, or into the plumbing in order to fully observe the condition of a Component that is not otherwise visible.



CHAPTER 17: FINANCIAL FACTORS

OVERVIEW

The Financial Factors screen is where the Submitter of CNA e-Tool specifies the parameters used to structure the Financial Plan for funding recommended future repairs and replacements.

INSTRUCTIONS ON ENTERING DATA

Sample Property 100 - User Guide Property ID: 800336699
FHA# 053-11346 Status: Draft - On Partner's Desk Validation: Validated - Severe Flags Options

Washington, DC

Assessment Entry Validation

Property Info

CNA Summary

Assessment Scope **3**

Participants

Utility Types & Rates **4**

Design & Construction

Sites **7**

Buildings

Unit Types

Units & Common Spaces

Parking

Components, Alts & Recs

Repair Needs Analysis

Processing Info

Units Inspected

Narratives & Attachments

Financial Factors

Repair Replace Decisions

FINANCIAL FACTORS ?

Yr-1 Annual Deposit Per Unit **3** Initial Deposit to RfR **5**

Yr-1 Annual Deposit **4** Min. RfR Balance % (of Needs) **6**

Ending Yr-1 Planned Min. Bal **7**

	Initial Rate	Next Rate	RY of Change
8 % change in Annual Deposit	<input type="text" value="0.00000"/>	<input type="text" value="2.00000"/>	<input type="text" value="3.00"/>
9 % inflation of Capital Needs	<input type="text" value="6.81000"/>	<input type="text" value="2.27000"/>	<input type="text" value="3.00"/>
10 % interest earned on RfR Balance	<input type="text" value="0.04000"/>	<input type="text" value="1.19000"/>	<input type="text" value="3.00"/>

Submitter's comments RfR Funding Plan **2** **1**

Narratives & Attachments

Financial Factors **11**

Energy

Current **12**

Historical

Owner Settings

Amortization Start Date **15**

Does this property have a loan? **11**

Loan Amount **12** Loan Annual Interest Rate % **13** Amortization Period in Years **14**

% of Cumulative Principal Paid ROR Deficit Allowance **16**

- 1** SAVING CHANGES
- 2** CANCEL CHANGES
- 3** YR-1 ANNUAL DEPOSIT PER UNIT
- 4** YR-1 ANNUAL DEPOSIT
- 5** INITIAL DEPOSIT TO RFR
- 6** MIN. RFR BALANCE % (OF NEEDS)
- 7** ENDING YR-1 PLANNED MIN. BALANCE
- 8** % CHANGE IN ANNUAL DEPOSIT
- 9** % INFLATION OF CAPITAL NEEDS
- 10** % INTEREST EARNED ON RFR BALANCE
- 11** DOES THIS PROPERTY HAVE A LOAN
- 12** LOAN AMOUNT
- 13** LOAN ANNUAL INTEREST RATE %
- 14** AMORTIZATION PERIOD IN YEARS
- 15** AMORTIZATION START DATE
- 16** % OF CUMULATIVE PRINCIPAL PAID ROR DEFICIT

BASIC COMMANDS

Repair Needs Analysis Submitter's comments RfR Funding Plan

Processing Info

Units Inspected

Narratives & Attachments

Financial Factors

Cancel Save Changes

1. SAVING CHANGES

Click “Save Changes” to save any edits made to the screen.

Repair Needs Analysis Submitter's comments RfR Funding Plan

Processing Info

Units Inspected

Narratives & Attachments

Financial Factors

Cancel Save Changes

2. CANCEL CHANGES

Click “Cancel Changes” to cancel any edits made to the screen.

DATA ENTRY FIELDS

Sample Property 100 - User Guide Property ID: 800336699 Status: Draft - On Partner's Desk Validation: Validated - Severe Flags Options -
Washington, DC FHA #: 053-11346

Assessment Entry Validation

Property Info

CNA Summary

Assessment Scope

Participants

Utility Types & Rates

Design & Construction

Sites

Buildings

Unit Types

FINANCIAL FACTORS

Yr-1 Annual Deposit Per Unit Initial Deposit to RfR

Yr-1 Annual Deposit Min. RfR Balance % (of Needs)

Ending Yr-1 Planned Min. Bal. TBD

	Initial Rate	Next Rate	RY of Change
% change in Annual Deposit	0.00000	2.00000	3.00

3. YR-1 ANNUAL DEPOSIT PER UNIT

Enter the expected dollars per unit needed as an Annual Deposit to the RfR escrow. The Submitter likely will enter trial dollar amounts per unit to test possible funding solutions given a set of realistic assumptions about cost inflation, interest rates on short-term maturities, and a modest percent annual change in an owner’s annual deposit to the RfR escrow.

CNA Summary

Assessment Scope

Participants

Utility Types & Rates

Yr-1 Annual Deposit Per Unit Initial Deposit to RfR

Yr-1 Annual Deposit Min. RfR Balance % (of Needs)

4. YR-1 ANNUAL DEPOSIT

This is the Yr-1 annual deposit amount per unit multiplied by the number of units.

CNA Summary

Assessment Scope

Participants

Utility Types & Rates

Yr-1 Annual Deposit Per Unit Initial Deposit to RfR

Yr-1 Annual Deposit Min. RfR Balance % (of Needs)

5. INITIAL DEPOSIT TO RfR

Enter the estimated amount of funding as the required contribution to the RfR account for the first relative year of the estimate period.

CNA Summary

Assessment Scope

Participants

Utility Types & Rates

Yr-1 Annual Deposit Per Unit Initial Deposit to RfR

Yr-1 Annual Deposit Min. RfR Balance % (of Needs)

6. MIN. RfR BALANCE % (OF NEEDS)

In CNAs for which HUD is the Approving Agency, this percentage amount of the total uninflated capital needs across all the years in the estimate period (typically 20 years) is the minimum balance required in the RfR account each year. This percentage is calculated as 1 divided by the number years of the estimate period.

Design & Construction	Ending Yr-1 Planned Min. Bal	7
Sites	<input type="radio"/>	TBD
Buildings	<input type="radio"/>	

7. ENDING YR-1 PLANNED MIN. BALANCE

This field displays the total uninflated capital needs across the entire estimate period divided by the estimate period.

Buildings	<input type="radio"/>	8			
Unit Types	<input type="radio"/>	% change in Annual Deposit	Initial Rate	Next Rate	RY of Change
Units & Common Spaces	<input type="radio"/>	% Inflation of Capital Needs	6.81000	2.27000	3.00
Parking	<input type="radio"/>	% interest earned on RFR Balance	0.04000	1.19000	3.00
Components, Alts & Recs	<input type="radio"/>				

8. % CHANGE IN ANNUAL DEPOSIT

To plan an increase/decrease in the annual percentage rate of change in the annual deposit, enter the proposed initial annual percentage rate of change. The “initial” and “next” rate of change in the annual deposit allows the user to propose a graduated annual increase in owner contributions to the RfR, including a one-time increase/decrease in the rate of change. No proposed rate of change should exceed the rate of inflation expected and applied to the costs of capital needs.

Buildings	<input type="radio"/>	9			
Unit Types	<input type="radio"/>	% change in Annual Deposit	Initial Rate	Next Rate	RY of Change
Units & Common Spaces	<input type="radio"/>	% inflation of Capital Needs	6.81000	2.27000	3.00
Parking	<input type="radio"/>	% interest earned on RFR Balance	0.04000	1.19000	3.00
Components, Alts & Recs	<input type="radio"/>				

9. % INFLATION OF CAPITAL NEEDS

The Inflation Rate (%) is applied to the uninflated capital needs amounts in the future needs table, year over year. The “Initial Rate” should reflect current market conditions and the “Next Rate” should indicate the historic average rate (of inflation). The “RY of Change” indicates the Relative Year (RY) in the future needs table in which the Inflation Rate changes from the “Initial” to the “Next” Rate. If a single rate or historic average is expected for the entire Estimate Period, enter that rate as both the “Initial Rate” and the “Next Rate” and enter “1” for “RY of Change.”

	Initial Rate	Next Rate	RY of Change
% change in Annual Deposit	0.00000	2.00000	3.00
% Inflation of Capital Needs	6.81000	2.27000	3.00
% interest earned on RfR Balance	0.04000	1.19000	3.00

10. % INTEREST EARNED ON RfR BALANCE

The Interest Rate (%) is applied to the Ending Balance amount in the Financial Schedule each year and added as interest-earned income to the RfR account. The "Initial Rate" should reflect current market conditions and the "Next Rate" should indicate the historic average rate (of short maturities). The "RY of Change" indicates the Relative Year (RY) in the Financial Schedule in which the Interest Rate changes from the "Initial" to the "Next" Rate. If a single rate or historic average is expected for the entire Estimate Period, enter that rate as both the "Initial Rate" and the "Next Rate" and enter "1" for "RY of Change."

<input checked="" type="checkbox"/> Narratives & Attachments	<input type="radio"/>	Does this property have a loan? 11	<input type="button" value="No"/>	<input type="button" value="Yes"/>
<input checked="" type="checkbox"/> Financial Factors	<input type="radio"/>			

11. Does this property have a loan?

This conditional question is a pre-cursor to expand on additional loan information, if applicable for the property.

<input checked="" type="checkbox"/> Narratives & Attachments	<input type="radio"/>	Does this property have a loan?	<input type="button" value="No"/>	<input type="button" value="Yes"/>
<input checked="" type="checkbox"/> Financial Factors	<input type="radio"/>			
Energy		Loan Amount 12	Loan Annual Interest Rate %	Amortization Period in Years
Current	<input type="radio"/>	5000.00	4.00000	36

12. Loan Amount

Numerical Data Entry, as \$ amount, reflecting the total Loan for the property.

<input checked="" type="checkbox"/> Narratives & Attachments	<input type="radio"/>	Does this property have a loan?	<input type="button" value="No"/>	<input type="button" value="Yes"/>
<input checked="" type="checkbox"/> Financial Factors	<input type="radio"/>			
Energy		Loan Amount	Loan Annual Interest Rate % 13	Amortization Period in Years
Current	<input type="radio"/>	5000.00	4.00000	36

13. Loan Amount Interest Rate%

Numerical Data Entry, as percentage, of the annual Interest Rate applied to the property's loan.

Narratives & Attachments

Financial Factors

Energy

Current

Does this property have a loan? No Yes

14

Loan Amount: 5000.00

Loan Annual Interest Rate %: 4.00000

Amortization Period in Years: 36

Financial Factors

Energy

Current

Historical

Owner Settings

15

Loan Amount: 5000.00

Loan Annual Interest Rate %: 4.00000

Amortization Period in Year: 36

Amortization Start Date: 2024-05-01

% of Cumulative Principal Paid ROR Deficit Allowance: 50.00000 %

Loan Amount: 5000.00

Loan Annual Interest Rate %: 4.00000

Amortization Period in Years: 36

Amortization Start Date: 2024-05-01

% of Cumulative Principal Paid ROR Deficit Allowance: 50.00000 %

16

14. Amortization Period in Years

The Amortization Period is the total time it will take the property to pay off the Total Loan in years, based on the principal amount and interest rate.

15. Amortization Start Date

Data entry establishing the starting date of the property's loan payments, based on the principal and interest breakdown.

16. % of Cumulative Principal Paid ROR Deficit Allowance

Numerical data entry, as percent, that helps calculate the cumulative principal amount paid on a property's loan.

MORE INFORMATION

INITIAL AND ANNUAL RESERVE DEPOSITS, RESERVE MINIMUM BALANCE REQUIREMENTS

The *YR-1 Annual Deposit per Unit* field allows you to enter trial dollar amounts per unit to test possible funding solutions given a set of realistic assumptions about cost inflation, interest rates on short-term maturities, and a modest percent annual change in an Owner's annual deposit to the RfR escrow. Use the Financial Factors screen to alter variables and model results.

In addition, the Assessment Tool provides two methods for planning the minimum estimated year-end reserve balance: a *dollar per unit* method and a *percentage of total uninflated cost* method (required by HUD). Both generate a minimum balance amount for the first Relative Year in the Estimate Period. CNA e-Tool inflates this initial amount in each relative year using the same inflation rate as for costs.

A stylized illustration of a cityscape on the left side of the page. It features several buildings of varying heights and colors (green, blue, white) with grid patterns representing windows. There are also trees and bushes in shades of green and blue. The background is a solid green color.

CHAPTER 18: REPAIR REPLACE DECISION

OVERVIEW

The Repair Replace Decision screen is where the CNA Submitter decides what action to take for each Component. After selecting a Component, the Submitter will see the Component Alternative that was recommended by the Preparer (in some cases these will be the same person, depending upon the User Path Matrix). The Submitter will have the option of selecting a different Alternative as the final decision or changing the decision details, including the replacement “Action” and “When.” The final decision will default to the Preparer’s Recommendation if the Submitter does not take any action on a Recommendation.

INSTRUCTIONS ON ENTERING DATA

Sample Property 100 - User Guide
Washington, DC
Property ID: 800336699
FHA#: 053-11346
Status: Draft - On My Desk Validation: Validation Needed Options ▾

Assessment Entry Validation

Property Info

- CNA Summary
- Assessment Scope
- Participants
- Utility Types & Rates

Design & Construction

- Sites
- Buildings
- Unit Types
- Units & Common Spaces
- Parking
- Components, Alts & Recs
- Repair Needs Analysis

Processing Info

- Units Inspected
- Narratives & Attachments
- Financial Factors
- Repair Replace Decisions

Energy

- Current
- Historical

REPAIR REPLACE DECISION

Component Type	Component Name	Recommendation	Decision
3.6.2.2 - Residential smoke detectors	Smoke detectors - Dwelling Units	Hard wired smoke detectors	
3.3.4.3.4 - Soffits, Wood, Vinyl, Metal	Vertical Trim, Repaint at Bldg. 715 (Non-Critical Repair)	Vertical Trim, Repaint at Bldg. 715 (Non-Critical Repair)	1
3.2.4.8 - Striping and Marking	Reconfigure Handicapped Parking, Site (Critical Repair)	Reconfigure Handicapped Parking, Site (Critical Repair)	
3.2.5.2 - Concrete	Correct Concrete Sidewalk Trip	Correct Concrete Sidewalk Trip	

Decision

Selected Alternative **4**

Vertical Trim, Repaint at Bldg. 715 (Non-Critical Repair)

Action **5**

Replace

When **6**

Now

Months to Complete

6

Duration **7**

0

Location **8**

Bldg 715 trim

Class of Work (Scope)

Repair **10**

Detailed Comments

11

Critical Repairs 9

Life Safety Item?

NO **9A**

Accessibility Remedy?

NO **9B**

Relevant Accessibility Statute

Select... **9C**

Scope of Accessibility Compliance

9D

3

Cancel

Save **2**

1 SELECT COMPONENT

2 SAVE CHANGES

3 CANCEL CHANGES

4 SELECTED ALTERNATIVE

5 ACTION

6 WHEN

7 DURATION

8 LOCATION

9 CRITICAL REPAIRS

10 CLASS OF WORK (SCOPE)

11 DETAILED COMMENTS

BASIC COMMANDS

Component Type	Component Name	Recommendation	Decision
3.6.2.2 - Residential smoke detectors	Smoke detectors - Dwelling Units	Hard wired smoke detectors	
3.3.4.3.4 - Soffits, Wood, Vinyl, Metal	Vertical Trim, Repaint at Bldg. 715 (Non-Critical Repair)	Vertical Trim, Repaint at Bldg. 715 (Non-Critical Repair)	1
3.2.4.8 - Striping and Marking	Reconfigure Handicapped Parking, Site (Critical Repair)	Reconfigure Handicapped Parking, Site (Critical Repair)	
3.2.5.2 - Concrete	Correct Concrete Sidewalk Trip	Correct Concrete Sidewalk Trip	

2

Cancel Save

3

Cancel Save

1. SELECT COMPONENT

Select a Component from the Component table. After clicking on a Component, the rest of this section will display what the Preparer recommended.

2. SAVE CHANGES

To save any edits, click “Save.”

3. CANCEL CHANGES

To cancel changes made to the decision, click “Cancel.”

DECISION-RELATED COMMANDS

Decision

Selected Alternative 4

Vertical Trim, Repaint at Bldg. 715 (Non-Critical Repair)

4. SELECTED ALTERNATIVE

By default, the Alternative that the Preparer recommended for the Component is displayed in this field. Clicking the dropdown list shows all the additional Alternatives that were considered by the Preparer for the selected Component. The Submitter can select any of these other Alternatives as a final decision that is different from what was recommended by the Preparer.

Action 5

Replace

When: Now

Months to Complete: 6

Duration: 0

Critical Repairs

Life Safety Item?: NO

Accessibility Remedy?: NO

Relevant Accessibility Statute: Select...

5. ACTION

The action displayed in this field was recommended by the Preparer. Clicking the dropdown list shows all of possible actions. The Submitter can select any of these other Actions as a final decision that is different from what was recommended by the Preparer. See [Chapter 13: Components, Alternatives, and Recommendations](#) for action descriptions.

Action Replace	Critical Repairs
When 6 Months to Complete Now	Life Safety Item? NO
Duration 0	Accessibility Remedy? NO Relevant Accessibility Statute Select...
Location Bldg 715 trim	Scope of Accessibility Compliance

6. WHEN

The option for “When” displayed in this field was recommended by the Preparer. Clicking the dropdown list shows the two options, “Now” and “End of Cycle.” The Submitter can select either of these timeframes as a final decision that is different from what was recommended by the Preparer. See [Chapter 13: Components, Alternatives, and Recommendations](#) for descriptions of “Now” and “End of Cycle.”

Action Replace	Critical Repairs
When Months to Complete Now 7 6	Life Safety Item? NO
Duration 0	Accessibility Remedy? NO Relevant Accessibility Statute Select...
Location Bldg 715 trim	Scope of Accessibility Compliance

7. DURATION

If there is a number in the Duration field, it was recommended by the Preparer. The Submitter may edit this field. See [Chapter 13: Components, Alternatives, and Recommendations](#) for a definition of “Duration.”

Replace	Critical Repairs
When Months to Complete Now 6	Life Safety Item? NO
Duration 0 8	Accessibility Remedy? NO Relevant Accessibility Statute Select...
Location Bldg 715 trim	Scope of Accessibility Compliance

8. LOCATION

Provide additional comments about the recommended action.

Action Replace	Critical Repairs 9
When Months to Complete Now 6	Life Safety Item? 9A NO
Duration 0	Accessibility Remedy? NO Relevant Accessibility Statute Select...
Location Bldg 715 trim	Scope of Accessibility Compliance

9. CRITICAL REPAIRS

This section is read-only and is populated by what was entered by the Preparer.

9A. LIFE SAFETY ITEM?

This indicates a risk to health and safety that requires immediate attention by the owner. “YES” places this Recommendation on the list of critical life safety repairs that the Submitter and owner must address, typically before the closing of a transaction or within a fixed, short-term period acceptable to the Approving Agency.

Action Replace	Critical Repairs Life Safety Item? NO
When Now	Months to Complete 6
Duration 0	Accessibility Remedy? NO 9B
Location Bldg 715 trim	Relevant Accessibility Statute Select... 9C
	Scope of Accessibility Compliance 9D

9B. ACCESSIBILITY REMEDY?

“YES” indicates a required remedy for a deficiency or nonconformance with the applicable accessibility statutes and regulations.

9C. RELEVANT ACCESSIBILITY STATUTE

If the Alternative is indicated as an accessibility remedy, select the relevant accessibility statute that was not met. See [Relevant Accessibility Statute](#) for more information.

9D. SCOPE OF ACCESSIBILITY COMPLIANCE

Describe the specific requirements of the statute that were not met at the property, such as “UFAS Section ##” or “useable kitchen, min 40” clearance required.” See [Requirement\(s\) Not Met](#) for more information on what constitutes an unmet requirement.

Class of Work (Scope) 10 Repair
Detailed Comments
Cancel Save

10. CLASS OF WORK (SCOPE)

You may edit the information entered by the Preparer or enter a short description of the scope of work for the repair/replacement/add new action.

Class of Work (Scope) Repair
Detailed Comments 11
Cancel Save

11. DETAILED COMMENTS

Enter detailed comments to justify your decision.



CHAPTER 19: ENERGY EFFICIENCY CURRENT

This screen is currently under development
and will be included in a future version.

INSTRUCTIONS ON IMPORTING DATA

ENERGY BENCHMARKING SCORE - CURRENT 1

[Import](#)

Property ID 800236639	FHA Number
---------------------------------	-------------------

STATUS Deficient	GREEN MIP Yes	ENERGY CURRENT DATE 2022-12-31
----------------------------	-------------------------	--

Property Information 2

Portfolio Manager Property ID 24772295	Portfolio Manager Parent Property ID 24371915
Unique Building Identifier (UBID) 232277	Number of Buildings 10
Year Built 1993	Verified On Date 2023-02-03
Verifier Credentials PE (AK 123); RA (GA 456); CEM (789); ASHRAE (0AB); OTHER (other, CDE)	Green Building Certification LEED Certification Date Achieved: Green Globes Certification Date Achieved: 2023-02-03

Benchmarking 3

Period Ending Date for Year Verified:
2023-01-31

Property Usage

ENERGY STAR Score 70	Site Energy Use (kBtu) 13759499.1
Site EUI (kBtu/ft²) 91.6	Water Score (Multifamily Only) 94

Electricity

Weather Normalized Site Electricity Intensity (Grid or Other Renewables) (kWh/ft²) 49.3	Weather Normalized Site Electricity Use (Grid or Onsite Renewables) (kWh) 2172185.7
--	---

CURRENT ENERGY BENCHMARKING DATA (Read-Only)

Natural Gas

Weather Normalized Site Natural Gas Intensity (therms/ft²)
42.3

Weather Normalized Site Natural Gas Use (therms)
63480

Water

Use (All Water Sources) (kgal)
1166.3

Use Intensity (All Water Sources) (gal/ft²)
7.77

Coal

Weather Normalized Site Bituminous Use (kBtu)
785

Bituminous Use (kBtu)
234

Diesel #2

Weather Normalized Site Use (kBtu)
444

Use (kBtu)
333

District Hot Water

Weather Normalized Site Use (kBtu)
896

Use (kBtu)
343

District Steam

Weather Normalized Site Use (kBtu)
656

Use (kBtu)
234

Fuel Oil #2

Weather Normalized Site Use (kBtu)
222

Use (kBtu)
111

Kerosene

Weather Normalized Site Use (kBtu)
123

Use (kBtu)
555

Propane

Weather Normalized Site Use (kBtu)
765

Use (kBtu)
456

Avoided Emissions

Offsite Green Power (Metric Tons CO²)
867.5

Onsite and Offsite Green Power (Metric Tons CO²)
867.5

Onsite Green Power (Metric Tons CO²)
55.57

Electricity Use

Generated from Onsite Renewable Systems and Used Onsite (kBtu)
59.6

Generated from Onsite Renewable Systems and Used Onsite (kWh)
178.19

Grid Purchase and Generated from Onsite Renewable Systems (kWh)
2172186

Generated from Onsite Renewable Systems and Exported (kWh)
111.42

Generated from Onsite Renewable Systems (kWh)
44.16

Grid Purchase (kWh)
2172185.7

GHG Emissions

Direct (Metric Tons CO²)
337.2

Direct Intensity (kgCO²/ft²)
4

Indirect (Metric Tons CO²)
594.9

Indirect Intensity (kg/CO²/ft²)
84.54

Total (Metric Tons CO²)
932.1

Total Intensity (kg/CO²/ft²)
6.2

Other

Net Emissions (Metric Tons CO²)
64.5

Percent of Total Electricity Generated from Onsite Renewable Systems
109.27

Weather Normalized Site Use (kBtu)
865

Other Use (kBtu)
234

- 1** IMPORT
- 2** PROPERTY INFORMATION
- 3** BENCHMARKING
- 4** METRICS

ENERGY BENCHMARKING SCORE - CURRENT Import

Property ID 800026702	FHA Number	
STATUS N/A	GREEN MIP N/A	ENERGY CURRENT DATE N/A

1. PROPERTY ID

Review this field to confirm if the Property ID displayed is the same as Property ID entered on the CNA Summary tab.

IMPORT

ENERGY BENCHMARKING SCORE - CURRENT Import

Property ID 800026702	FHA Number	
STATUS N/A	GREEN MIP N/A	ENERGY CURRENT DATE N/A

2. IMPORT

Once clicked, this button will query and display any applicable and existing EPA data for this Property ID from the EPA Portfolio Manager tool. If EPA data exists, it will appear displayed in the benchmarking categories. This section is read-only.

Property Information -

Portfolio Manager Property ID N/A	Portfolio Manager Parent Property ID N/A
Unique Building Identifier (UBID) N/A	Number of Buildings N/A
Year Built N/A	Verified On Date N/A
Verifier Credentials N/A	Green Building Certification LEED Certification Date Achieved: Green Globes Certification Date Achieved:

Benchmarking +

Metrics +

3. PROPERTY INFORMATION

This section contains high-level property information.

4. BENCHMARKING

This section contains applicable benchmarking data present for utilities, energy star ratings, energy usage, etc.

5. METRICS

This section reflects any applicable metrics present for this property around energy usage – Electricity, GHG Emissions, Other, etc.

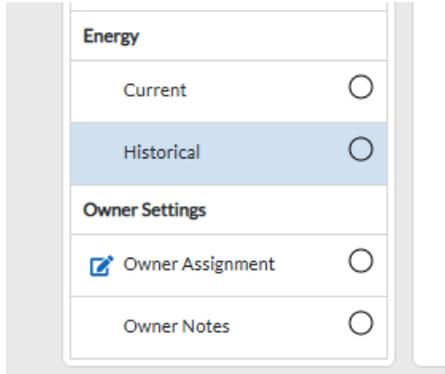


CHAPTER 20: ENERGY EFFICIENCY HISTORICAL

This screen is currently under development
and will be included in a future version

INSTRUCTIONS ON IMPORTING HISTORICAL DATA

1



1. SELECT HISTORICAL

Click on the Historical tab under the “Energy” section under the Assessment Entry tab. After clicking on a tab, if an applicable Property Number is present, the rest of this section will display on the right.

2

ENERGY BENCHMARKING SCORE HISTORY

Property ID: 800236639 **3** FHA Number:

<u>ENERGY STAR Score</u>	<u>ENERGY STAR Portfolio Manager Account Number</u>	<u>Weather Normalized Site EUI</u>	<u>Water Use Intensity</u>	<u>Water Score</u>	<u>Verified On Date</u>	<u>Period Ending Date for Year Verified</u>
70	24772295	182.6	7.77	94	2023-02-03	2023-01-31

- 1 ENERGY TAB: HISTORICAL**
- 2 ENERGY BENCHMARKING SCORE HISTORY**
- 3 PROPERTY ID**

A stylized illustration of a cityscape on the left side of the page. It features several buildings in various shades of green, blue, and white. Some buildings have grid patterns representing windows. In the foreground, there are stylized trees and bushes in shades of green and blue. The background is a solid light green color.

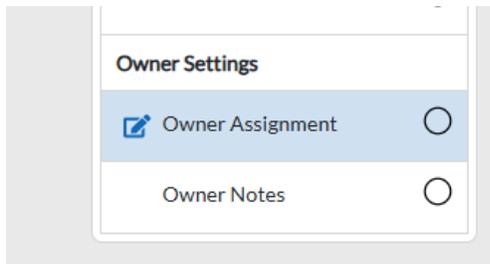
CHAPTER 21: OWNER SETTINGS

INSTRUCTIONS ON ADDING OWNERS TO CNA

The applicant applying for their M-ID credential will need to provide all requested information required as part of the Secure Systems and FHA Connections Registration Process. The organization must have a user apply for the Coordinator user type, after which the organization's Coordinator will give their specific organization's users CNA e-Tool Property Owner Role (CHO) role through Security Systems User Maintenance and/or FHA Connections.

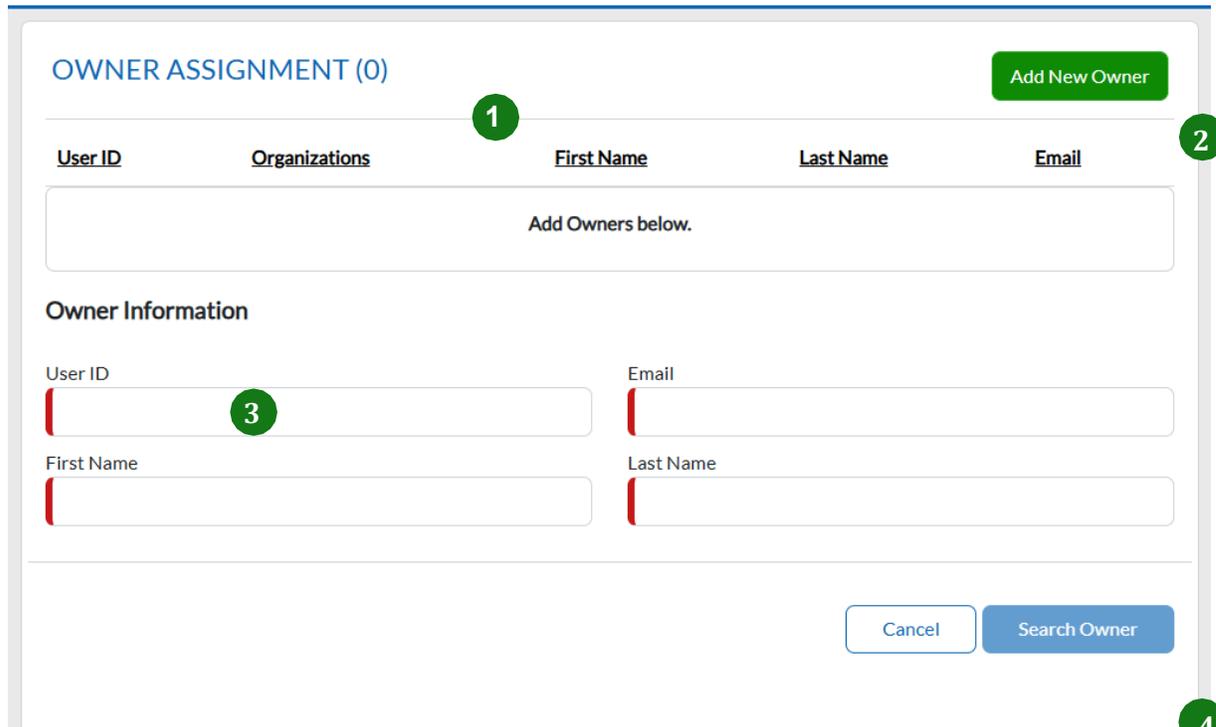
Once the CHO role is assigned to the Owner, the new Owner should be able to login and access the CNA e-Tool. The Property Owner may or may not see existing assessments under their 'Owner's Desk' dashboard, as it is dependent on direct assignment by the initiator.

The following steps document how an Owner can be assigned to a specific CNA and Property once CHO role has been established prior:



1. OWNER ASSIGNMENT

After selecting and opening the specific property's CNA in question, scroll the screen to find the 'Owner Settings' section under the Assessment Entry tab, click on 'Owner Assignment.'

A screenshot of a web form titled "OWNER ASSIGNMENT (0)". At the top right is a green "Add New Owner" button. Below the title is a table with columns: "User ID", "Organizations", "First Name", "Last Name", and "Email". The table is currently empty, with the text "Add Owners below." centered in the body. Below the table is a section titled "Owner Information" containing four input fields: "User ID", "Email", "First Name", and "Last Name". At the bottom right are two buttons: "Cancel" and "Search Owner". Numbered callouts (1-4) are placed on the form: 1 is above the "Organizations" column header, 2 is above the "Email" column header, 3 is above the "User ID" input field, and 4 is at the bottom right corner of the form area.

2. ADD NEW OWNER

Once the Initiator clicks on the 'Add New Owner' button, the four required data fields needed to assign the specific Property Owner to the CNA expands below. Required information are marked in red.

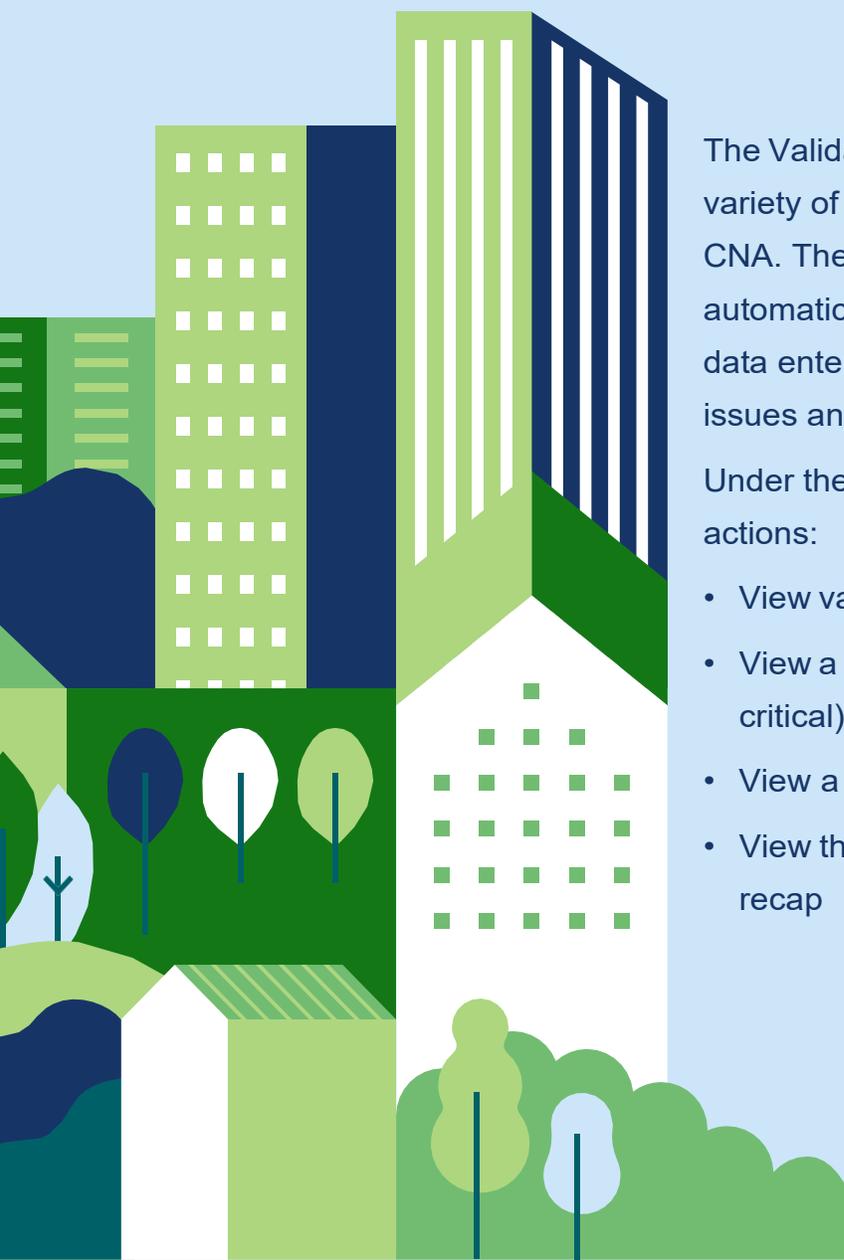
3.OWNER INFORMATION

To set up a Property Owner to a particular CNA, the verification process needs to match the exact User ID, Email Address, First Name, and Last Name of the owner.

4.SEARCH OWNER

Once the information is verified with the secure search process, if successful, a modal window will pop-up allowing the Initiator to add a property owner.

SECTION III: VALIDATION SCREENS



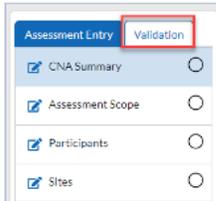
The Validation tab is where users can view a variety of reports regarding the validation of a CNA. The e-Tool

automatically validates and reviews the assessment data entered using built-in logic to identify potential issues and generates calculated results.

Under the Validation tab you can take the following actions:

- View validation flags and add comments
- View a list of repairs by type (e.g., critical and non-critical)
- View a summary of future repair needs
- View the financial schedule and estimate period recap

The validation function is accessed by clicking the Validation tab on the left sidebar.



There are several different list views accessible from the Validation tab on the left sidebar on the screen. Unlike the CNA Dashboard, the left sidebar contains both filters and reports that the user can click to view. These views include:

- **Flags View** – This view displays validation flags and is where you can address those flags.
- **Repair Needs View** (read-only) – Displays a summary of repair needs.
- **Future Needs View** (read-only) – Displays a summary of future needs.
- **Financial Schedule and Estimated Period Recap** (read-only) – Displays a financial summary and schedule.

Dummy CNA: Ignore: Testing FF
Testing FF, VA Property ID: 812345612

Status: Draft - In Progress Validation: Validated - Severe Flags Options

Switch between validation and assessment entry

Access Flags View

Access Repair Needs View

Access Future Needs View

Access Financial Schedule View

Flags

Severe 2

Warnings 15

Informational 0

Repair Needs

Critical Repairs 0

Life Safety 0

Accessibility 0

Non-Critical Repairs 0

Future Needs 4

Financial Sched. & Est. Period Recap

Reports

FLAGS - ALL (15) Respond to Flags Print

Sev	ID	Description	Cause Note	Submitter Response
0	AA-002: 1	Utility Data Report Not Attached	The EPA Portfolio Manager Report (SEDI or SEP) was not attached to the Assessment	Original comments entered. Edit
0	AA-013: 1	The assessment submitted to HUD for review is more than 6 months old	More than 6 months have passed between when the CNA was submitted to HUD for review and when the assessment was completed	Add
0	DJ-001: 1	Minimum percentage of Units not Inspected for a Building	The minimum number of units were not inspected for a Building; see Site: 85 Dale Street, Building: 85 Dale Street	Add
0	DJ-001: 2	Minimum percentage of Units not Inspected for a Building	The minimum number of units were not inspected for a Building; see Site: 3115-3125 Washington, Building: 3125 Washington Street	Add
0	DJ-001: 3	Minimum	The minimum number of units were not inspected for a Building; see Site:	Add

The list will update depending on the selected view



CHAPTER 21: FLAGS

OVERVIEW

The validation function performs an automated review of the assessment data using built-in logic to identify potential issues and generates a list of “flags.” Each flag indicates potentially faulty data. Some of these flags are informative, some require a comment by the Submitter, and some require the underlying data to be changed. The latter two flags must be addressed before the CNA can be submitted. The flags are automatically updated as the user enters or changes data.

INSTRUCTIONS ON ENTERING DATA

Sample full CNA (8/31/2022) Property ID: 899999991 Status: Draft - On My Desk Validation: Validated On

Fairfax, VA FHA #: 999-99991

Assessment Entry Validation

Flags 9

Severe ▲ 0

Warnings ● 15

Informational ● 0

Repair Needs

Critical Repairs ● 0

Life Safety ● 0

Accessibility ● 0

Non-Critical Repairs ● 0

Future Needs ● 4

Financial Sched. & Est. Period Recap

Reports

FLAGS - ALL (15) 5

6 7

5 Respond to Flags 6 7

1	2	3	4	8
Sev	ID	Description	Cause Note	Submitter Response
●	AA-002: 1	Utility Data Report Not Attached	The EPA Portfolio Manager Report (SEDI or SEP) was not attached to the Assessment	Original comments entered. Edit
●	AA-013: 1	The assessment submitted to HUD for review is more than 6 months old	More than 6 months have passed between when the CNA was submitted to HUD for review and when the assessment was completed	Add
●	DU-001: 1	Minimum percentage of Units not Inspected for a Building	The minimum number of units were not inspected for a Building; see Site: 85 Dale Street, Building: 85 Dale Street	Add
●	DU-001: 2	Minimum percentage of Units not Inspected for a Building	The minimum number of units were not inspected for a Building; see Site: 3115-3125 Washington, Building: 3125 Washington Street	Add
●	DU-001: 3	Minimum percentage of Units not Inspected for a Building	The minimum number of units were not inspected for a Building; see Site: 202A Warren Street, Building: 3115 Washington Street	Add

1 FLAG LEVELS

2 ID

3 DESCRIPTION

4 CAUSE NOTE

5 RESPOND TO FLAGS

6 COPY AND PASTE DATA

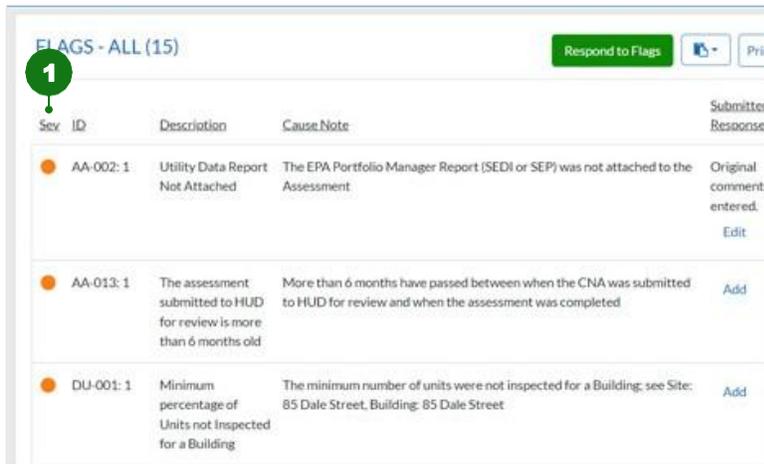
7 PRINT

8 ADD/VIEW/EDIT FLAG COMMENTS

9 FLAGS

FLAG RESULTS

Once data is entered into a CNA, a table is populated with the resulting flags. Each flag displays the following information:



1

Sev	ID	Description	Cause Note	Submitter Response
●	AA-002: 1	Utility Data Report Not Attached	The EPA Portfolio Manager Report (SEDI or SEP) was not attached to the Assessment	Original comments entered. Edit
●	AA-013: 1	The assessment submitted to HUD for review is more than 6 months old	More than 6 months have passed between when the CNA was submitted to HUD for review and when the assessment was completed	Add
●	DU-001: 1	Minimum percentage of Units not Inspected for a Building	The minimum number of units were not inspected for a Building; see Site: 85 Dale Street, Building: 85 Dale Street	Add



2

Sev	ID	Description	Cause Note	Submitter Response
●	AA-002: 1	Utility Data Report Not Attached	The EPA Portfolio Manager Report (SEDI or SEP) was not attached to the Assessment	Original comments entered...



3

Sev	ID	Description	Cause Note	Submitter Response
●	AA-002: 1	Utility Data Report Not Attached	The EPA Portfolio Manager Report (SEDI or SEP) was not attached to the Assessment	Original comments entered...



4

Sev	ID	Description	Cause Note	Submitter Response
●	AA-002: 1	Utility Data Report Not Attached	The EPA Portfolio Manager Report (SEDI or SEP) was not attached to the Assessment	Original comments entered...

1. FLAG LEVELS

There are three levels of severity:

- **Informational (no symbol)**. This flag provides information that you may need to consider. It does not prevent submission and does not require explanation or comment.
- **Warning (●)**. This flag indicates an issue that needs to be resolved or needs an explanation. The Submitter must provide a comment before the CNA can be submitted.
- **Severe (▲)**. This flag indicates a violation against some policy requirement that will prevent the CNA from being submitted. This flag cannot be resolved with a comment and requires the underlying data to be fixed.

2. ID

ID is the category that the flag belongs to. There are numerous categories depending on the policies and rules applicable to the CNA type.

3. DESCRIPTION

This briefly describes what is being flagged.

4. CAUSE NOTE

This explains why this flag is occurring.

ACTIONS

Sev	ID	Description	Cause Note	Submitter Response
●	AA-002: 1	Utility Data Report Not Attached	The EPA Portfolio Manager Report (SEDI or SEP) was not attached to the Assessment	Original comments entered

Response Entry

ID: AA-002 Instance: 1 Description: Utility Data Report Not Attached Cause Note: The EPA Portfolio Manager Report (SEDI or SEP) was not attached to the Assessment

Existing Reviewer Comments: This is a test for reviewer comment.

Acknowledged 1 of 6

Cancel Save Response

Acknowledged
Acknowledged
Not required at this time
Other

Existing Reviewer Comments: This is a test for reviewer comment.

Other Enter response here...

1 of 6

Sev	ID	Description	Cause Note	Submitter Response
●	AA-002: 1	Utility Data Report Not Attached	The EPA Portfolio Manager Report (SEDI or SEP) was not attached to the Assessment	Original comments entered

Sev	ID	Description	Cause Note	Submitter Response
●	AA-002: 1	Utility Data Report Not Attached	The EPA Portfolio Manager Report (SEDI or SEP) was not attached to the Assessment	Original comments entered

Sev	ID	Description	Cause Note	Submitter Response
●	AA-002: 1	Utility Data Report Not Attached	The EPA Portfolio Manager Report (SEDI or SEP) was not attached to the Assessment	Original comments entered

5. RESPOND TO FLAGS

Clicking “Respond to Flags” will bring up a window where you can enter comments for each flag.

- Enter flag comments in the text box.
- Users now have the opportunity to auto-select preset responses, including Acknowledged, Not Required At This Time, and Other.
- Selecting ‘Other’ will allow users to add additional details.
- Click “Save Response” to save the comments.
- Click “Cancel” to cancel any edits and return to the Validation section.
- Click on the back and forward arrows to cycle through the listed flags.

6. COPY AND PASTE DATA

Click on the symbol to access the copy and paste function for responding to flags. This can be used to copy/paste data to a spreadsheet for editing the comments and to copy/paste these back into the Flags screen. See [Appendix A](#) for detailed instructions on how to use the copy and paste function.

7. PRINT

Click on the symbol to print the list of flags on the screen.

8. ADD/VIEW/EDIT FLAG COMMENTS

Click to view, edit, or enter comments for a specific flag.

- “Add” will display if no comment has been entered.

9

Assessment Entry Validation

Flags

Severe 0

Warnings 15

Informational 0

Repair Needs

FLAGS - ALL (15) Respo

Sev	ID	Description	Cause Note
0	AA-002: 1	Utility Data Report Not Attached	The EPA Portfolio Manager Report (SEDI or SEP) was no Assessment

- “View/Edit” will display if a comment has been entered.

9. FLAGS

Clicking one of these options will filter the list of flags based on the type of flag (Informational / Warning / Severe).



CHAPTER 22: REPAIR NEEDS, FUTURE NEEDS, FINANCIAL SCHEDULE, ESTIMATED PERIOD RECAP, AND RESERVER FOR REPLACEMENT

OVERVIEW

From the left sidebar under Validations, the user may view a summary of immediate repairs that provides a consolidated list of repairs by type and future repair needs spread out over the life of the CNA, with total cost estimates for each year.

VALIDATION VIEW — REPAIR NEEDS REPORT

The screenshot shows a software interface for a 'Validation' report. On the left, a sidebar contains a 'Flags' section with various categories and counts: Severe (0), Warnings (55), Informational (5), Repair Needs (highlighted with callout 1), Critical Repairs (3), Life Safety (2), Accessibility (1), Non-Critical Repairs (2), Future Needs (50), and Financial Sched. & Est. Period Recap. The main area is titled 'REPAIR NEEDS (5)' and includes a 'Print' button. It features a summary table (callout 2) and a detailed table (callout 3).

	Total	\$/Unit
Immediate Repairs (Total)	\$1,000	\$11.90
Life Safety Remedies	\$400	\$4.76
Accessibility Remedies	\$200	\$2.38
- Immediate Action	-	-
- Deferred	\$200	\$2.38
Non-critical Needs	\$400	\$4.76

Sev	Need Item	Selected Alternative	Component Name	Class of Work (Scope)	Location
○	(3.3.3.1) Sidewall System	Block Veneer - Replacement	Block Veneer - Replacement	Level 1 Alt: Block Veneer - Replacement	All buildings
🔥	(3.3.4.2) Low Slope/Flat Roofs	Repair Sub-Floor at Flower Deck Secondary Access Entry (Critical Repair)	Repair Sub-Floor at Flower Deck Secondary Access Entry (Critical Repair)	Repair Sub-Floor at Flower Deck Secondary Access Entry	Flower Deck

1 REPAIR NEEDS FILTERS

2 SUMMARY TABLE

3 REPAIR NEEDS

1

Repair Needs		Total	\$/Unit
Critical Repairs	3		
Life Safety	2		
Accessibility	1		
Non-Critical Repairs	2		
Accessibility Remedies		\$200	\$2.38
- Immediate Action		-	-
- Deferred		\$200	\$2.38
Non-critical Needs		\$400	\$4.76

1. REPAIR NEEDS FILTERS

These filter the repairs by severity. For critical repairs, you can filter further by Life Safety and Accessibility Remedies.

REPAIR NEEDS (5) Expand

Print

	Total	\$/Unit
Immediate Repairs (Total)	\$1,000	\$11.90
Life Safety Remedies	\$400	\$4.76
Accessibility Remedies	\$200	\$2.38
- Immediate Action	-	-
- Deferred	\$200	\$2.38
Non-critical Needs	\$400	\$4.76

2

2. SUMMARY TABLE

This table provides a summary of immediate repairs. The total repairs costs and repairs per unit costs are displayed for each category. This data comes from the Components, Alternatives, and Recommendations screen and the Decisions section. The following categories of Immediate Repairs are reported:

- Life Safety Remedies
- Accessibility Remedies
 - o Immediate Action
 - o Deferred
- Non-Critical Needs

	Total	\$/Unit
Immediate Repairs (Total)	\$1,000	\$11.90
Life Safety Remedies	\$400	\$4.76
Accessibility Remedies	\$200	\$2.38
- Immediate Action	-	-
- Deferred	\$200	\$2.38
Non-critical Needs	\$400	\$4.76

Sev	Need Item	Selected Alternative	Component Name	Class of Work (Scope)	Location
●	(3.3.3.1) Sidewall System	Block Veneer - Replacement	Block Veneer - Replacement	Level 1 Alt: Block Veneer - Replacement	All buildings
🔥	(3.3.4.2) Low Slope/Flat Roofs	Repair Sub-Floor at Flower Deck Secondary Access Entry (Critical Repair)	Repair Sub-Floor at Flower Deck Secondary Access Entry (Critical Repair)	Repair Sub-Floor at Flower Deck Secondary Access Entry	Flower Deck

3. REPAIR NEEDS

This table displays every Component that requires an immediate repair. Use the Scroll Bar beneath the table to view information about Components. For each Component, the following information is displayed:

- Severity – This indicates the severity of the repair need.

▲ = Critical Repair. This includes both Life Safety and Accessibility Remedies.

🔥 = Life Safety Remedy for a Critical Repair

♿ = Accessibility Remedy for a Critical Repair

● = Non-Critical Repair

- Need Item
- Selected Alternative
- Component Name
- Class of Work (Scope)
- Location
- Quantity Unit of Measure
- Unit Cost
- Total Cost
- Months to Complete
- Detailed Description, Accessibility Compliance

Filters – Clicking on a filter column will narrow down the immediate repair table results and only display Components that match the filter.

VALIDATION VIEW — FUTURE NEEDS REPORT

Assessment Entry **Validation**

Flags

- Severe ▲ 0
- Warnings ● 23
- Informational ● 0

Repair Needs

- Critical Repairs ● 0
- Life Safety ● 0
- Accessibility ● 0
- Non-Critical Repairs ● 0
- Future Needs** ● 4
- Financial Sched. & Est. Period Recap
- Reports

FUTURE NEEDS Expand 2 3 All Years Years 0-10 Years 10+ 4 Print

Component Type	Selected Alternative	RUL	EUL	Quantity	Unit of Measure
3.3 Building Frame & Envelope					
3.3.2.8 Exterior Doors & Entry Systems					
3.3.2.8 40-Common Exterior Door, Hollow Metal (Single) (Thermal Boundary)	336552 - Common Exterior Door, Hollow Metal (Single) (Thermal Boundary)	4	25	10	Each
3.3 Building Frame & Envelope					
3.3.3.2 Windows					
3.3.3.2 3-Single Hung Window (1 - 6 Stories) (Aluminum)	336554 - Single Hung Window (1 - 6 Stories) (Aluminum)	4	35	413	Each
3.4 Mech.-Elect.-Plumbing					
3.4.1.2 Domestic Water Heating					
3.4.1.2 11-Hot Water Storage Tank - 75 to 80 Gallon	336553 - Hot Water Storage Tank - 75 to 80 Gallon	4	15	13	Each
3.7.2 Interiors-Dwelling Units					
3.7.2.3 Appliances					
3.7.2.3 20-Traditional Refrigerator (Unit)	336526 - Traditional Refrigerator (Unit)	4	12	35	Each
Total Inflated Needs					

- 1 **FUTURE NEEDS TABLE**
- 2 **EXPAND/COLLAPSE VIEW**
- 3 **SELECT YEAR RANGE**
- 4 **PRINT**

FUTURE NEEDS Expand

All Years Years 0-10 Years 10+ Print

Component Type	Selected Alternative	RUL	EUL	Quantity	Unit of Measure
3.3 Building Frame & Envelope					
3.3.2.8 Exterior Doors & Entry Systems					
3.3.2.8 40-Common Exterior Door, Hollow Metal (Single) (Thermal Boundary)	336552 - Common Exterior Door, Hollow Metal (Single) (Thermal Boundary)	4	25	10	Each
3.3 Building Frame & Envelope					
3.3.3.2 Windows					
3.3.3.2 3-Single Hung Window (1 - 6 Stories) (Aluminum)	336554 - Single Hung Window (1 - 6 Stories) (Aluminum)	4	35	413	Each
3.4 Mech.-Elect.-Plumbing					
3.4.1.2 Domestic Water Heating					
3.4.1.2 11-Hot Water Storage Tank - 75 to 80 Gallon	336553 - Hot Water Storage Tank - 75 to 80 Gallon	4	15	13	Each
3.7.2 Interiors-Dwelling Units					
3.7.2.3 Appliances					
3.7.2.3 20-Traditional Refrigerator (Unit)	336526 - Traditional Refrigerator (Unit)	4	12	35	Each
Total Inflated Needs					

1

1. FUTURE NEEDS TABLE

This table contains cost data for every Component that will require future replacement within a certain number of years as defined by the agency (typically 20 years).

Each Component with future needs will be listed under its Component Type (“N/A” indicates no Component under that particular Component Type) and will list the following information. You may need to use the scroll bars to see all the table rows and columns:

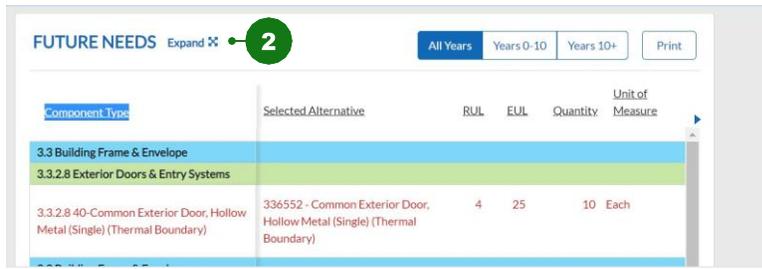
- Component Type
- Selected Alternative
- RUL
- EUL
- Quantity
- Unit of Measure
- Unit Cost
- One-Time Sub-Total – This is the total cost of replacing the Component.
- Yearly Costs – The remaining columns break down the total cost by year. The costs in each year column represent the cost of replacing that Component for only that specific year. The yearly costs are calculated based on the EUL.

FUTURE NEEDS Collapse

All Years Years 0-10 Years 10+ Print

Component Type	Selected Alternative	RUL	EUL	Quantity	Unit of Measure	Unit Cost	One-Time Sub-Total	Year 0	Year 1	Year 2	...
3.3 Building Frame & Envelope											
3.3.2.8 Exterior Doors & Entry Systems											
3.3.2.8 40-Common Exterior Door, Hollow Metal (Single) (Thermal Boundary)	336552 - Common Exterior Door, Hollow Metal (Single) (Thermal Boundary)	4	25	10	Each	\$398.66	\$3,986.60				
3.3 Building Frame & Envelope											
3.3.3.2 Windows											
3.3.3.2 3-Single Hung Window (1 - 6 Stories) (Aluminum)	336554 - Single Hung Window (1 - 6 Stories) (Aluminum)	4	35	413	Each	\$285.00	\$117,705.00		\$16,815.00	\$16,815.00	\$16,815.00
3.4 Mech.-Elect.-Plumbing											
3.4.1.2 Domestic Water Heating											
3.4.1.2 11-Hot Water Storage Tank - 75 to 80 Gallon	336553 - Hot Water Storage Tank - 75 to 80 Gallon	4	15	13	Each	\$1,411.20	\$18,345.60				\$6.11
3.7.2 Interiors-Dwelling Units											
3.7.2.3 Appliances											
3.7.2.3 20-Traditional Refrigerator (Unit)	336526 - Traditional Refrigerator (Unit)	4	12	35	Each	\$499.00	\$18,065.00				\$5.20
Total Inflated Needs									\$16,815.00	\$16,815.00	\$18.28

In the example below, the carpet has an EUL of 6 years, and had an RUL of 1 year at the time of inspection. The carpet’s RUL expired after year 0, so the initial replacement cost is shown to be incurred in year 1. Since the EUL of the replacement carpet was also 6 years, the next cost occurred on year 7.



2. EXPAND/COLLAPSE VIEW

Click the  and  symbols to expand and collapse your view of the table.



3. SELECT YEAR RANGE

Click “All Years,” “Years 0–10,” and “Years 10+” to view only the selected range in the future needs table.



4. PRINT

Click the “Print” button to print the Future Needs table.

VALIDATION VIEW — FINANCIAL SCHEDULE REPORT

CNA Review		View CNA		FINANCIAL SCHEDULE Expand								Print		
Flags										1				
Severe										0				
Warnings										13				
Informational										0				
Repair Needs														
Critical Repairs										15				
Life Safety										1				
Accessibility										14				
Non-Critical Repairs										9				
Future Needs										87				
Financial Sched. & Est. Period Recap														
Reserve for Replacement														
Reports														
Agency CNA Decision														
Calendar Year	Year 01	Year 02	Year 03	Year 04	Year 05	Year 06	Year 07	2023	2024	2025	2026	2027	2028	2029
Beginning Balance	\$108,184.29	\$191,750.02	\$127,085.16	\$107,934.5	\$189,800.8	\$226,598.74	\$305,917.8	\$108,184.29	\$191,750.02	\$127,085.16	\$107,934.5	\$189,800.8	\$226,598.74	\$305,917.8
Interest Income	\$75.73	\$134.23	\$88.96	\$75.55	\$132.86	\$158.62	\$214.14	\$75.73	\$134.23	\$88.96	\$75.55	\$132.86	\$158.62	\$214.14
Annual Deposit	\$83,490	\$83,490	\$83,490	\$83,490	\$83,490	\$83,490	\$83,490	\$83,490	\$83,490	\$83,490	\$83,490	\$83,490	\$83,490	\$83,490
Uninflated Needs (Withdrawal)	\$0	\$138,834.45	\$93,378.43	\$1,499.6	\$40,119.31	\$3,601.5	\$3,600	\$0	\$138,834.45	\$93,378.43	\$1,499.6	\$40,119.31	\$3,601.5	\$3,600
Inflated Needs (Withdrawal)	\$0	\$148,289.08	\$102,729.62	\$1,699.26	\$46,824.92	\$4,329.56	\$4,457.55	\$0	\$148,289.08	\$102,729.62	\$1,699.26	\$46,824.92	\$4,329.56	\$4,457.55
Ending Balance	\$191,750.02	\$127,085.16	\$107,934.5	\$189,800.8	\$226,598.74	\$305,917.8	\$385,164.35	\$191,750.02	\$127,085.16	\$107,934.5	\$189,800.8	\$226,598.74	\$305,917.8	\$385,164.35
Required Minimum Balance	\$35,812.54	\$38,251.37	\$39,398.92	\$40,580.88	\$41,798.31	\$43,052.26	\$44,343.83	\$35,812.54	\$38,251.37	\$39,398.92	\$40,580.88	\$41,798.31	\$43,052.26	\$44,343.83
Interest Rate on Balance	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%
Inflation Rate on Deposit	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Inflation Rate on Capital Needs	0%	6.81%	3%	3%	3%	3%	3%	0%	6.81%	3%	3%	3%	3%	3%
RFRR Deposit / Unit / Year	\$1,815	\$1,815	\$1,815	\$1,815	\$1,815	\$1,815	\$1,815	\$1,815	\$1,815	\$1,815	\$1,815	\$1,815	\$1,815	\$1,815
Inflated Needs / Unit / Year	\$0	\$3,223.68	\$2,233.25	\$36.94	\$1,017.93	\$94.12	\$96.5	\$0	\$3,223.68	\$2,233.25	\$36.94	\$1,017.93	\$94.12	\$96.5
Cumulative Principal Paid	\$21,091.23	\$43,129.41	\$66,157.07	\$90,218.63	\$115,360.52	\$141,631.23	\$169,081.45	\$21,091.23	\$43,129.41	\$66,157.07	\$90,218.63	\$115,360.52	\$141,631.23	\$169,081.45

Reserve for Replacement (RfR) Ending Balance Analysis

Relative Year	Ending Balance	Required Min. Balance	Cumulative Principal Paid	Allowable Deficit Based on Cumulative Principal Paid	Compliance Indicator
1	\$191,750.02	\$35,812.54	\$21,091.23	Not Applicable	Pass
2	\$127,085.16	\$38,251.37	\$43,129.41	Not Applicable	Pass
3	\$107,934.50	\$39,398.92	\$66,157.07	Not Applicable	Pass
4	\$189,800.80	\$40,580.88	\$90,218.63	Not Applicable	Pass
5	\$226,598.74	\$41,798.31	\$115,360.52	Not Applicable	Pass
6	\$305,917.80	\$43,052.26	\$141,631.23	Not Applicable	Pass
7	\$385,164.35	\$44,343.83	\$169,081.45	Not Applicable	Pass
8	\$451,865.92	\$45,674.14	\$197,764.14	Not Applicable	Pass
9	\$526,539.04	\$47,044.37	\$227,734.64	Not Applicable	Pass
10	\$572,756.13	\$48,455.70	\$259,050.75	Not Applicable	Pass
11	\$600,477.07	\$49,909.37	\$291,772.91	(\$145,886.45)	Pass
12	\$682,757.12	\$51,406.65	\$325,964.23	(\$162,982.11)	Pass
13	\$728,715.59	\$52,948.85	\$361,690.68	(\$180,845.34)	Pass
14	\$709,437.21	\$54,537.31	\$399,021.19	(\$199,510.59)	Pass
15	\$771,820.52	\$56,173.43	\$438,027.78	(\$219,013.89)	Pass
16	\$669,768.97	\$57,858.64	\$478,785.69	(\$239,392.84)	Pass
17	\$704,125.98	\$59,594.39	\$521,373.57	(\$260,686.78)	Pass
18	\$772,682.99	\$61,382.23	\$565,873.56	(\$282,936.78)	Pass
19	\$835,698.47	\$63,223.69	\$612,371.53	(\$306,185.76)	Pass
20	\$788,052.08	\$65,120.40	\$660,957.18	(\$330,478.59)	Pass

Estimate Period Recap

	Total	\$/Unit
Total Deposits [all sources] to RfR Escrow	\$1,784,753	\$38,799
Years in Estimate Period	20	
Initial Deposit	\$108,184	\$2,352
Total Future Annual Deposits	\$1,669,800	\$36,300
Total Interest Income	\$6,768	
Total Uninflated Future Needs	\$716,251	\$15,571
Total Inflated Future Needs [withdrawals]	\$996,701	\$21,667
Estimated Period Ending Balance	\$788,052	\$17,132
1st Year Annual Deposit/Unit	\$1,815	
Lowest RfR Balance Year	3	
Lowest RfR Balance \$/Unit	\$2,346	
Last Year Ending Balance Deficiency \$/Unit	\$0	
Suggested Add to ADRR \$/Unit	\$0	
Highest RfR Balance Year	19	
Highest RfR Balance \$/Unit	\$18,167	
Lowest Withdrawal Year	1	
Highest Withdrawal Year	16	

1

FINANCIALSCHEDULE

2

RESERVE FOR REPLACEMENT (RFR) ENDING BALANCE ANALYSIS

3

ESTIMATE PERIOD RECAP

FINANCIAL SCHEDULE Expand 1 Print

	Year 01	Year 02	Year 03	Year 04	Year 05	Year 06	Year 07	Y
Calendar Year	2021	2022	2023	2024	2025	2026	2027	
Beginning Balance	\$210,000	\$232,900	\$256,447.7	\$281,937.49	\$308,242.49	\$325,984.3	\$353,406.09	\$38
Interest Income	\$2,100	\$2,329	\$3,846.72	\$4,229.06	\$4,623.64	\$4,889.76	\$5,301.09	\$
Annual Deposit	\$21,000	\$21,420	\$21,848.4	\$22,285.37	\$22,731.08	\$23,185.7	\$23,649.41	\$
Uninflated Needs (Withdrawal)	\$200	\$200	\$200	\$200	\$9,000	\$600	\$200	
Inflated Needs (Withdrawal)	\$200	\$201.3	\$205.33	\$209.43	\$9,612.9	\$653.67	\$222.25	
Ending Balance	\$232,900	\$256,447.7	\$281,937.49	\$308,242.49	\$325,984.3	\$353,406.09	\$382,134.34	\$41
Required Minimum Balance	\$1,580	\$1,590.27	\$1,622.08	\$1,654.52	\$1,687.61	\$1,721.36	\$1,755.79	
Interest Rate on Balance	1%	1%	1.5%	1.5%	1.5%	1.5%	1.5%	
Inflation Rate on Deposit	0%	2%	2%	2%	2%	2%	2%	
Inflation Rate on Capital Needs	0%	0.65%	2%	2%	2%	2%	2%	
RFRR Deposit / Unit / Year	\$250	\$255	\$260.1	\$265.3	\$270.61	\$276.02	\$281.54	
Inflated Needs / Unit / Year	\$2.38	\$2.4	\$2.44	\$2.49	\$114.44	\$7.78	\$2.65	

1. FINANCIAL SCHEDULE

This table contains a schedule of annual deposits to the Reserve for Replacement (RfR) account, balances, and withdrawals for each year in the estimate period, based on the CNA Preparer's assumptions and the Submitter's decisions. This table can be used to project future costs and to ensure that there are enough funds available to meet the required minimum balance for each year.

Reserve for Replacement (RfR) Ending Balance Analysis 2

Relative Year	Ending Balance	Required Min. Balance	Cumulative Principal Paid	Allowable Deficit Based on Cumulative Principal Paid	Compliance Indicator
1	\$103,200.00	\$67,185.68	\$139,354.53	Not Applicable	Pass
2	\$127,728.00	\$69,537.18	\$287,055.55	Not Applicable	Pass
3	\$151,145.64	\$71,115.67	\$443,602.95	Not Applicable	Pass
4	\$175,505.22	\$72,730.00	\$609,526.59	Not Applicable	Pass
5	\$200,836.34	\$74,380.97	\$785,388.03	Not Applicable	Pass
6	\$222,923.57	\$76,069.42	\$971,782.50	Not Applicable	Pass
7	\$250,204.98	\$77,796.19	\$1,169,340.86	Not Applicable	Pass
8	\$228,813.14	\$79,562.17	\$1,378,731.75	Not Applicable	Pass
9	\$198,207.27	\$81,368.23	\$1,600,663.87	Not Applicable	Pass
10	\$174,563.49	\$83,215.29	\$1,835,888.37	Not Applicable	Pass
11	(\$161,200.94)	\$85,104.27	\$2,085,201.38	(\$1,042,600.69)	Allowed
12	(\$299,413.03)	\$87,036.14	\$2,349,446.71	(\$1,174,723.35)	Allowed
13	(\$303,175.45)	\$89,011.86	\$2,629,518.72	(\$1,314,759.36)	Allowed
14	(\$510,329.69)	\$91,032.43	\$2,926,365.33	(\$1,463,182.66)	Allowed
15	(\$512,394.18)	\$93,098.87	\$3,240,991.23	(\$1,620,495.61)	Allowed
16	(\$599,817.98)	\$95,212.21	\$3,574,461.30	(\$1,787,230.65)	Allowed
17	(\$571,251.68)	\$97,373.53	\$3,927,904.18	(\$1,963,952.09)	Allowed
18	(\$717,235.25)	\$99,583.91	\$4,302,516.13	(\$2,151,258.06)	Allowed
19	(\$1,078,100.48)	\$101,844.46	\$4,699,565.04	(\$2,349,782.52)	Allowed
20	(\$1,232,879.78)	\$104,156.33	\$5,120,394.75	(\$2,560,197.37)	Allowed

2. RESERVE FOR REPLACEMENT(RFR) ENDING BALANCE ANALYSIS

The RfR Ending Balance Analysis shows the remaining balance in the RfR account at the end of each year throughout the 20-year CNA projection period after accounting for deposits and capital expenditures.

Estimate Period Recap 3

	Total	\$/Unit
Total Deposits [all sources] to RfR Escrow	\$858,822	\$10,224
Years in Estimate Period	20	
Initial Deposit	\$210,000	\$2,500
Total Future Annual Deposits	\$510,245	\$6,074
Total Interest Income	\$138,577	
Total Uninflated Future Needs	\$31,600	\$376
Total Inflated Future Needs [withdrawals]	\$38,182	\$455
Estimated Period Ending Balance	\$820,640	\$9,770
1st Year Annual Deposit/Unit	\$250	
Lowest RfR Balance Year	1	
Lowest RfR Balance \$/Unit	\$2,773	
Last Year Ending Balance Deficiency \$/Unit	\$0	
Suggested Add to ADRR \$/Unit	\$0	
Highest RfR Balance Year	20	
Highest RfR Balance \$/Unit	\$9,770	
Lowest Withdrawal Year	1	
Highest Withdrawal Year	17	

3. ESTIMATE PERIOD RECAP

This table contains an overall summary of RfR deposits, balances, and withdrawals for the entire estimate period, assuming that all of the physical issues of the property listed under Components, Alternatives, and Recommendations are addressed. Note that the Financial Schedule builds in interest earned in the RfR account and inflation factors.

VALIDATION VIEW — Reserve for Replacement

Assessment Entry
Validation
Print

Flags

- Severe ▲ 0
- Warnings ● 10
- Informational ● 0

Repair Needs

- Critical Repairs ● 6
- Life Safety ● 6
- Accessibility ● 0
- Non-Critical Repairs ● 17

Future Needs ● 62

Financial Sched. & Est. Period Recap

Reserve for Replacement

Reports

RESERVE FOR REPLACEMENT

Reserve for Replacement Deposit Schedule 1

Initial Deposit to the Reserve for Replacement Escrow, including any transfers (IDRR)
\$1,000,000.00

1st Year Annual Deposit to the Reserve for Replacement Escrow, Per Dwelling Unit (ADRR)
\$300.00

Number of Dwelling Units: 16 1st Year Deposit (Base Amount): \$4,800.00

	Initial Rate	Next Rate	RY of Change
% change in Annual Deposit	1.95000	1.95000	1.00

Annual Deposit Schedule 2

Relative Year	Base ADRR Amount	Adjusted ADRR Based on Rate(s) of Change	Adjusted ADRR Per Month
1	\$4,800	\$4,800	\$400.00
2	\$4,800	\$4,894	\$407.80
3	\$4,800	\$4,989	\$415.75
4	\$4,800	\$5,086	\$423.86
5	\$4,800	\$5,186	\$432.13
6	\$4,800	\$5,287	\$440.55
7	\$4,800	\$5,390	\$449.14
8	\$4,800	\$5,495	\$457.90
9	\$4,800	\$5,602	\$466.83
10	\$4,800	\$5,711	\$475.93
Total	\$48,000	\$52,439	

The ADRR may be amended in future years based on HUD review of actual repair and replacement needs and in any event ADRR will be adjusted based on a new capital needs assessment (CNA) which must be completed not later than 10 years after the date of

1 RESERVE FOR REPLACEMENT DEPOSIT SCHEDULE

2 ANNUAL DEPOSIT SCHEDULE

RESERVE FOR REPLACEMENT

Reserve for Replacement Deposit Schedule

Initial Deposit to the Reserve for Replacement Escrow, including any transfers (IDRR)

\$1,000,000.00

1st Year Annual Deposit to the Reserve for Replacement Escrow, Per Dwelling Unit (ADRR)

\$300.00

Number of Dwelling Units

16

1st Year Deposit (Base Amount)

\$4,800.00

Initial Rate

1.95000

Next Rate

1.95000

RY of Change

1.00

% change in Annual Deposit

1

1. RESERVE FOR REPLACEMENT DEPOSIT SCHEDULE

This table contains a deposit schedule of the Reserve for Replacement (RfR). The estimated funding amount is entered by the CNA submitter on the Financial Factors page.

2. ANNUAL DEPOSIT SCHEDULE

This table contains an overall ten-year annual deposit schedule. The annual deposit reserve replacement may be amended in future years based on HUD review of actual repair and replacement needs and, in any event, ADRR will be adjusted based on a new capital needs assessment (CNA) which must be completed not later than 10 years after the date of Endorsement/Final Endorsement.

Annual Deposit Schedule

Relative Year	Base ADRR Amount	Adjusted ADRR Based on Rate(s) of Change	Adjusted ADRR Per Month
1	\$4,800	\$4,800	\$400.00
2	\$4,800	\$4,894	\$407.80
3	\$4,800	\$4,989	\$415.75
4	\$4,800	\$5,086	\$423.86
5	\$4,800	\$5,186	\$432.13
6	\$4,800	\$5,287	\$440.55
7	\$4,800	\$5,390	\$449.14
8	\$4,800	\$5,495	\$457.90
9	\$4,800	\$5,602	\$466.83
10	\$4,800	\$5,711	\$475.93
Total	\$48,000	\$52,439	

2

The ADRR may be amended in future years based on HUD review of actual repair and replacement needs and in any event ADRR will be adjusted based on a new capital needs assessment (CNA) which must be completed not later than 10 years after the date of

APPENDICES

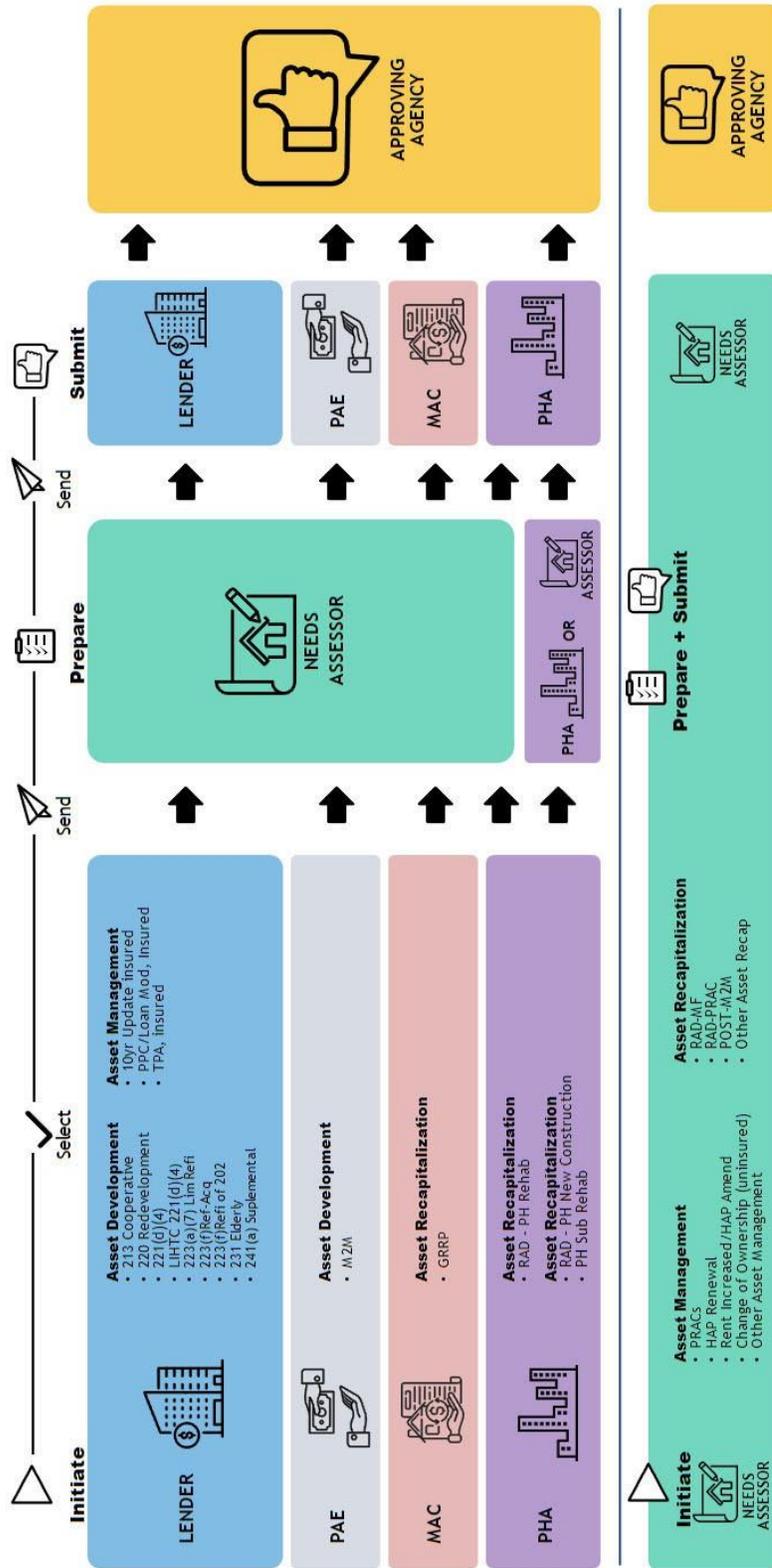


APPENDIX A

USER PATH MATRIX

The User Pathways provide a framework for anyone who touches the CNA and determines the user's responsibilities. The design of version 3.2 of CNA e-Tool is predicated on the "User Path" approach—meaning, who the user is, the CNA type, and the HUD program for which the CNA is being prepared determine the following:

- What information is requested on the screens
- What screens the user can view
- What screens users may edit and what screens require data entry from the user
- Who can submit a completed CNA to the Approving Agency

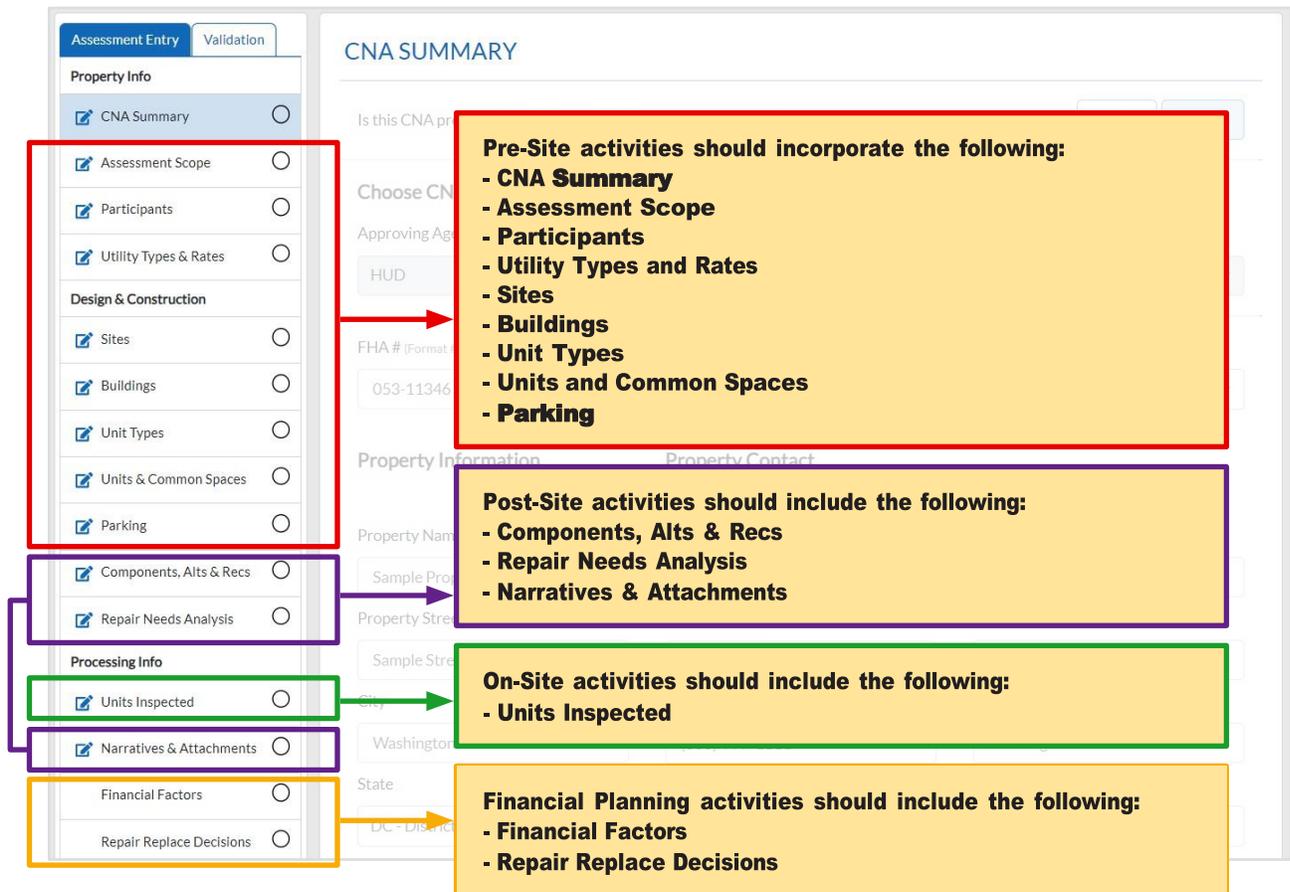


APPENDIX B

DATA ENTRY PROCESS

The process of entering data into CNA e-Tool generally occurs in phases. This section demonstrates which CNA e-Tool screens are completed during each phase for a typical CNA.

The image below shows which screens are *generally* completed during each phase of the process. These phases are merely suggestions. Different agencies may decide to use different processes.



PRE-SITE

Pre-site screens describe the property's basic characteristics. The CNA Summary screen must be completed by the **CNA Submitter**, which is generally the Lender, PAE, MAC, or PHA.

The CNA Summary screen is completed when the CNA is first initiated. The **CNA Preparer**, which is usually the Needs Assessor or PHA, generally completes the rest of the Pre-Site screens with information obtained by the property owner, property manager, and Lender.

These screens may be updated or modified based on observations made at the site throughout the process.

POST-SITE

Post-Site screens are usually completed by the **CNA Preparer** during or after the site visit. The Preparer completes the rest of their portion of the CNA and corrects any issues identified. Note that the CNA may be validated at any time during its preparation, but it must be validated during this phase.

ON-SITE

On-Site screens are usually completed by the **CNA Preparer** during the site visit.

The Preparer meets the owner and/or the Owner's designee at the site visit. Others, such as architects and engineers, may participate as well. Note that it may be possible and desirable to complete some screens and/or fields designated as On-Site prior to arrival at the site (for example, the random selection of units to be inspected should be identified in advance of the site visit).

FINANCIAL SCREENS

Financial screens, including Financial Factors and Repair Replace Decision, are usually completed by the **CNA Submitter** once the CNA is sent to the Submitter by the Preparer.

APPENDIX C

DATA ENTRY BY ROLE

This chart outlines which screens may be edited by CNA participants with specific user roles.

- **Submitter** – This can be either the Lender, PAE, MAC, or PHA
- **Preparer** – This can be either the Needs Assessor or PHA

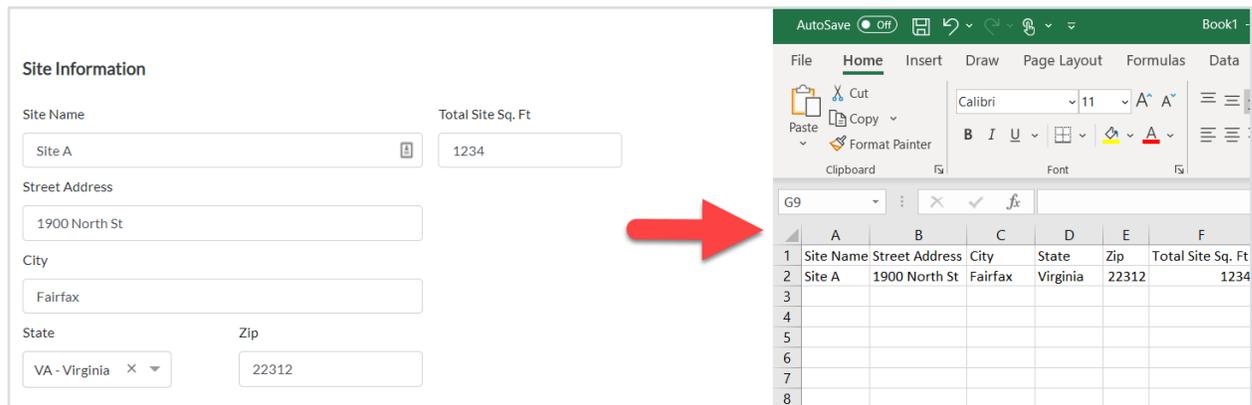
Section	Phase	Who Can Edit
CNA Summary	Pre-Site	Submitter
Assessment Scope	Pre-Site	Preparer
Participants	Pre-Site	Preparer
Utility Types and Rates	Pre-Site	Preparer
Sites	Pre-Site	Preparer
Buildings	Pre-Site	Preparer
Unit Types	Pre-Site	Preparer
Units & Common Spaces	Pre-Site	Preparer
Parking	Pre-Site	Preparer
Units Inspected	On-Site	Preparer
Components, Alts & Recs	Post-Site	Preparer
Repair Needs Analysis	Post-Site	Preparer
Narratives & Attachments	Post-Site	Preparer
Financial Factors	Financial Planning	Submitter
Repair Replace Decisions	Financial Planning	Submitter

APPENDIX D

COPY AND PASTE

CNA e-Tool v.3.2 includes Copy and Paste functions, which should improve the ease with which a user can enter large chunks of data into a CNA. The Copy and Paste functions allow you to add, edit, and delete data using Excel® or other similar spreadsheet programs. Copying data from a CNA screen will turn each data field into a cell in a spreadsheet. You can then edit, add, or delete data in the spreadsheet. Once you have made all of the edits, you can paste the data back into CNA e-Tool.

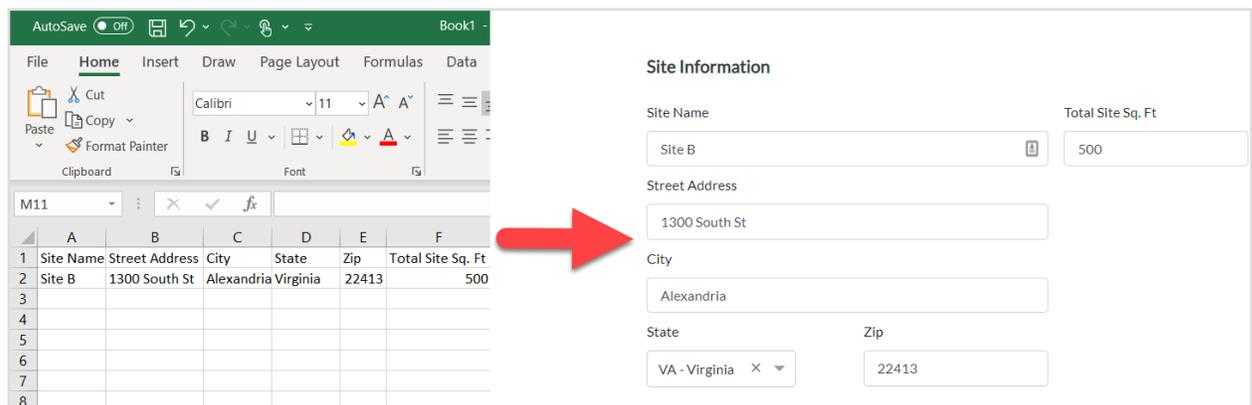
COPY DATA OUT



The screenshot shows the 'Site Information' form on the left and an Excel spreadsheet on the right. The form fields are: Site Name (Site A), Total Site Sq. Ft (1234), Street Address (1900 North St), City (Fairfax), State (VA - Virginia), and Zip (22312). The Excel spreadsheet has a table with the following data:

	A	B	C	D	E	F
1	Site Name	Street Address	City	State	Zip	Total Site Sq. Ft
2	Site A	1900 North St	Fairfax	Virginia	22312	1234
3						
4						
5						
6						
7						
8						

PASTE DATA IN



The screenshot shows the Excel spreadsheet on the left and the 'Site Information' form on the right. The spreadsheet has a table with the following data:

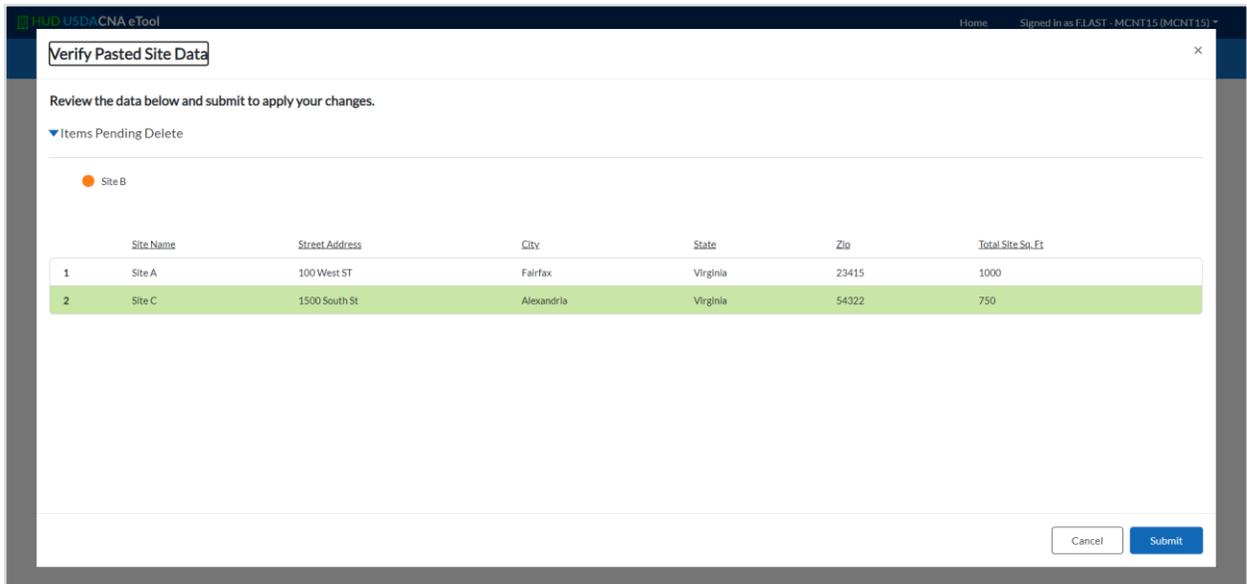
	A	B	C	D	E	F
1	Site Name	Street Address	City	State	Zip	Total Site Sq. Ft
2	Site B	1300 South St	Alexandria	Virginia	22413	500
3						
4						
5						
6						
7						
8						

The form fields are: Site Name (Site B), Total Site Sq. Ft (500), Street Address (1300 South St), City (Alexandria), State (VA - Virginia), and Zip (22413).

VERIFY PASTED DATA

When you paste data in, you will have the opportunity to review the data before saving the changes. All data will be listed in a Verify Pasted Data table:

- Deleted data will appear under “Items Pending Delete” noted by a ● symbol.
- New rows will be highlighted in green.
- Edited data within existing rows will not be highlighted, so review all data carefully.



Currently, the Copy and Paste function is available for only the following sections.

- Sites
- Buildings
- Units
- Common Spaces
- Units Inspected
- Components
- Alternatives
- Recommendations
- Narratives & Attachments

TO USE THE COPY AND PASTE FEATURE:

1. Go to the selected section, click the  icon, and select “Copy Data (Out)” to copy the section’s data into your computer’s built-in clipboard. Notification in the green box at the bottom will indicate successful copying of data into the clipboard.

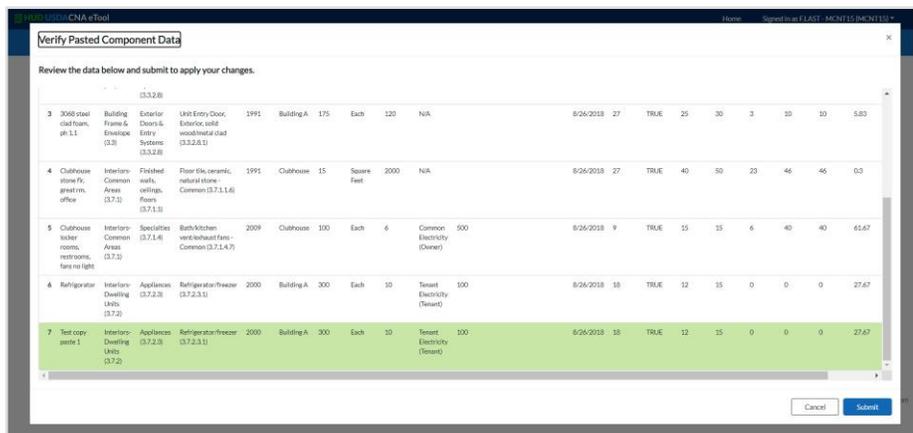


- Open the spreadsheet (e.g., Excel) and paste the data into the workbook (Ctrl-v). The pasted data will be organized into columns and rows automatically.

Successfully copied to clipboard. Ready to paste into a spreadsheet. ✕

Unit Num	Site Name	Building N:	Unit Type	Unit Floor	Ground Flc	Occupancy	Inspection	Fair Hsg Ac	Accessible	Fair Hsg Ac	Accessible	504/UFAS	Comments
1	Single site	A	2BR2ba A	1	Yes	Occupied	Inspected	N	Y	No	Yes	None	
9	Single site	A	2BR2ba A	3	No	Occupied	Inspected	N	Y	No	No	None	
7	Single site	A	2BR2ba B	2	No	Occupied	Inspected	N	Y	No	No	None	
2	Single site	B	1BR1ba	1	Yes	Occupied	Inspected	N	Y	No	Yes	None	
3	Single site	C	2BR2ba B	1	Yes	Occupied	Inspected	Y	Y	Yes	Yes	None	
11	Single site	C	2BR2ba B	3	No	Occupied	Inspected	N	Y	No	No	None	
5	Single site	C	2BR2ba A	2	No	Occupied	Inspected	N	Y	No	No	None	
10	Single site	B	1BR1ba	3	No	Occupied	Inspected	N	Y	No	No	None	
6	Single site	B	3BR2ba	2	No	Occupied	Inspected	N	Y	No	No	None	

- Add, edit, or delete data in the workbook.
 - Add** – Enter new data into the first blank row of data in the workbook.
 - Edit** – Modify data in individual cells on existing rows of data. *Note: If you modify key data fields, such as the name, CNA e-Tool will interpret this as a new row of data rather than an edit of an existing field. The key data fields are usually located in the first column of the workbook.*
 - Delete** – Delete a row of data to remove that data. *Note: Removing data may also remove dependency data. For example, deleting a site will delete all buildings associated with that site.*
- Highlight the entire workbook, including the column headers (row 1) and copy the data into your computer’s clipboard (Ctrl-c). *Note: You must highlight all data for it to be included. Any data that is not copied back into CNA e-Tool will be deleted.*
- Return to CNA e-Tool, click the  icon, and select “Paste Data (In)” to enter the data into the system.
- A “Verify Pasted Component Data” window will appear that shows all of the data being pasted in:
 - New rows of data are highlighted in green.



b. Data pending deletion will appear above the other data with a ● symbol.

Review the data below and submit to apply your changes.

▼ Items Pending Delete

● Test copy paste 1

Component Name	Need Category	Need Item	Component Type	Year Installed	Location	Original Unit Cost	Unit of Measure	Quantity	Type of Utility	Usage/Year	Assessed BIL	Assessed BIL Comments	CHS Effective Date	Assess CHS Effective Date	Eligible Indicator	Standard EUI Family	Standard EUI EUIch	Standard BIL	Standard BIL EUI	Standard BIL BIL	Assessed BIL EUI	Assessed BIL Operator	Annual Total Cost of Operator
1 5068 Battery sliding doors	Building Frame & Envelope (3.3)	Exterior Doors & Entry Systems (3.3.2.B)	Sliding Glass Doors (3.3.2.B.5)	1993	Building A	800	Each	190	N/A				8/26/2018	25	TRUE	25	30	5	17	17		26.67	
2 5068 Patio slider doors-Frak violation	Building Frame & Envelope (3.3)	Exterior Doors & Entry Systems (3.3.2.B)	Sliding Glass Doors (3.3.2.B.5)	1993	Building A	800	Each	64	N/A				8/26/2018	25	TRUE	25	30	5	17	17		26.67	
3 3068 steel clad doors	Building Frame & Envelope (3.3)	Exterior Doors & Entry Systems (3.3.2.B)	Unit Entry Door, Exterior, solid	1991	Building A	175	Each	120	N/A				8/26/2018	27	TRUE	25	30	3	10	10		5.83	

Cancel Submit

c. Existing rows of data will appear in the table without any highlights. Any edits made in individual cells of these rows will not be highlighted, so review carefully.

Review the data below and submit to apply your changes.

▼ Items Pending Delete

● Test copy paste 1

Component Name	Need Category	Need Item	Component Type	Year Installed	Location	Original Unit Cost	Unit of Measure	Quantity	Type of Utility	Usage/Year	Assessed BIL	Assessed BIL Comments	CHS Effective Date	Assess CHS Effective Date	Eligible Indicator	Standard EUI Family	Standard EUI EUIch	Standard BIL	Standard BIL EUI	Standard BIL BIL	Assessed BIL EUI	Assessed BIL Operator	Annual Total Cost of Operator
1 5068 Battery sliding doors	Building Frame & Envelope (3.3)	Exterior Doors & Entry Systems (3.3.2.B)	Sliding Glass Doors (3.3.2.B.5)	1993	Building A	800	Each	190	N/A				8/26/2018	25	TRUE	25	30	5	17	17		26.67	
2 5068 Patio slider doors-Frak violation	Building Frame & Envelope (3.3)	Exterior Doors & Entry Systems (3.3.2.B)	Sliding Glass Doors (3.3.2.B.5)	1993	Building A	800	Each	64	N/A				8/26/2018	25	TRUE	25	30	5	17	17		26.67	
3 3068 steel clad doors	Building Frame & Envelope (3.3)	Exterior Doors & Entry Systems (3.3.2.B)	Unit Entry Door, Exterior, solid	1991	Building A	175	Each	120	N/A				8/26/2018	27	TRUE	25	30	3	10	10		5.83	

Cancel Submit

d. If data is not pasted in with the correct format, it will appear as an error and will prevent the data from being pasted in. In this instance, “correct format” means the correct order of column headers as well as any required fields (fields that cannot be left blank).

Review the data below and submit to apply your changes.

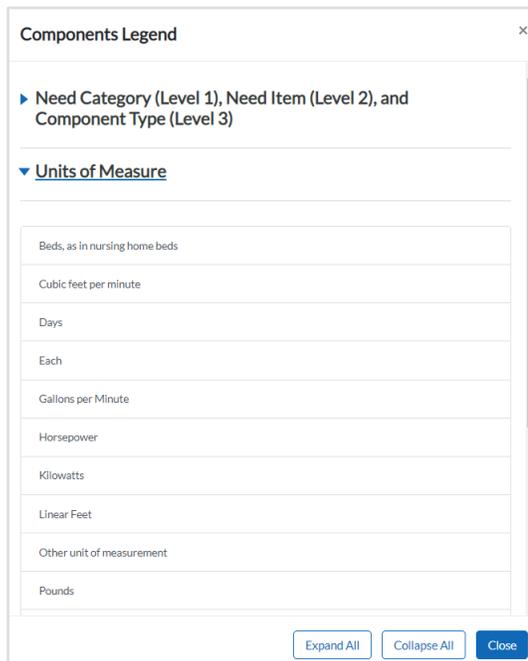
▼ Issues with pasted data

- ▲ Column 'Year Installed', Row 7: A value is required.
- ▲ Column 'Location', Row 7: A value is required.
- ▲ Column 'Original Unit Cost', Row 7: A value is required.
- ▲ Column 'Unit of Measure', Row 7: A value is required.
- ▲ Column 'Quantity', Row 7: A value is required.
- ▲ Column 'Type of Utility', Row 7: A value is required.
- ▲ Column 'Usage/Year', Row 7: A value is required.

7. If all data looks correct, click “Submit.” This will overwrite the existing data in the assessment.

TIPS FOR USING COPY AND PASTE

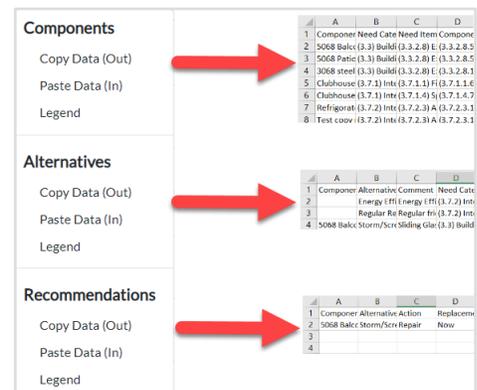
- If a row of data is deleted, all dependent data will also be deleted. For example, if Building 1 is associated to Site A, then deleting Site A will delete all the data entered for Building 1.
- When editing the data in a spreadsheet, do not add to or remove from the default columns/headers created when the data was first pasted in from CNA e-Tool.
- In many instances, the data in each cell must be in the correct format with the correct wording. This is true for data fields with dropdown options in CNA e-Tool. Use the “Legend” feature to copy a specific dropdown selection in the correct format. To do this:
 1. Click the  icon and select “Legend.”
 2. Click on the dropdown field you want to select from—this will expand to show all possible dropdown selections for that field.
 3. Click on a specific selection to copy that to your computer’s clipboard.



- All required fields must be filled in for each row.
- Modifying key data fields, such as the name, will cause CNA e-Tool to interpret this as a new row of data rather than an edit to an existing field.

COMPONENTS, ALTERNATIVES, AND RECOMMENDATIONS

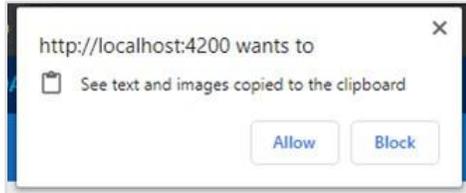
Components, Alternatives, and Recommendations each have their own copy and paste functions. In other words, each of these three sections should be treated separately when using copy and paste. Each section should be copied and pasted into its own Excel workbook. When using copy and paste for Components, Alternatives, and Recommendations, be mindful of the dependencies among those three sections. Each Recommendation must be linked to an Alternative, and each Alternative must be linked to a Component.



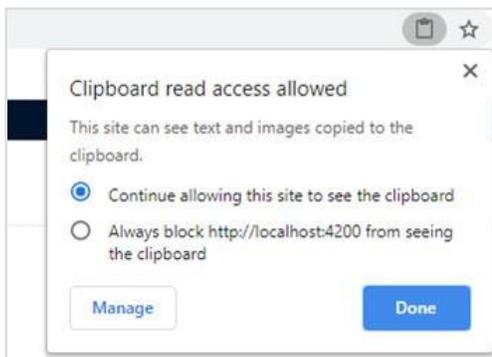
IMPORTANT NOTE ABOUT ENABLING THE CLIPBOARD FEATURE IN CHROME

In order to use the Paste feature in CNA e-Tool v.3.2, you need to ensure that the clipboard is enabled in Chrome.

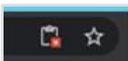
1. The first time you use the Paste function, a pop-up will appear, as shown below, in which Chrome will ask your permission to use the clipboard feature.
 - a. Click “Allow” to use this feature.
 - b. Chrome will then always allow this function for CNA v.3.2 going forward.



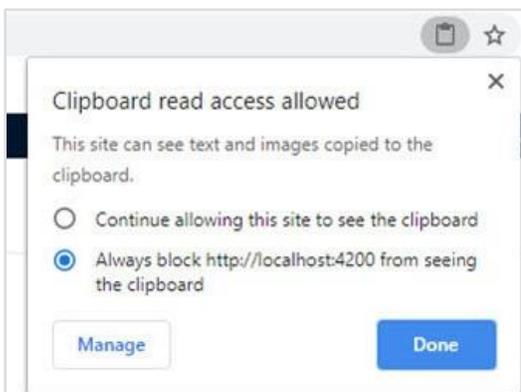
2. When logged into CNA e-Tool, you can check to ensure that the tool has access to the clipboard. To do this, after you click the Paste function, look at the right side of the URL bar. You should see a  icon.
 - a. FYI: Clicking the  icon also gives you the ability to turn off access to the clipboard for CNA v.3.2. **Do not do this!**



3. However, if you blocked the clipboard read access or accidentally turned it off, when you click on the Paste function, you will see this icon:



4. Click the icon to turn clipboard access back on.



APPENDIX E

HOW TO EDIT RETURNED CNAs

When a CNA is returned by HUD in CNA e-Tool, the returned CNA and its data become a permanent record in the database. Practically speaking, that means that a returned version (indicated by the CNA's particular Assessment ID) cannot be edited. In order to make any revisions or edits, a new version of the CNA must be created.

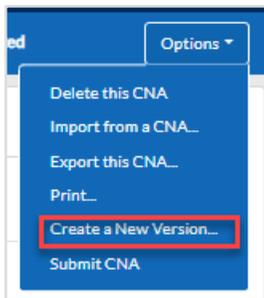
WHERE TO FIND RETURNED CNAs

A "Returned" CNA is sent to the original Submitter and will appear in the Submitter's Dashboard, "My Desk". It will be marked with the red warning icon [⚠️].

HOW TO EDIT RETURNED CNAs

A returned CNA cannot be edited directly. A new version of it must be created in order to edit the data.

1. Go to "Options" and select "Create a New Version."

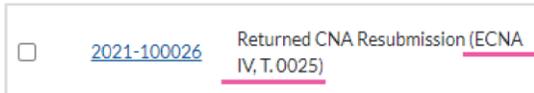


2. A prompt will come up, asking if you would like to copy all the existing attachment files into the new version. Copying all the attachments will take longer, but you will retain all the uploaded files from the original returned CNA.



3. Once confirmed, take note of the Assignment ID and locate the duplicated CNA in your Dashboard under “My Desk.”

Note: The Property Name is auto-appended with “...(Last Name, First Initial, last 4 digits of the original CNA Assessment ID).” This is to help you keep track of different versions of the CNA created on your Dashboard. Don’t forget to delete this appended text from the Property Name prior to submitting it to HUD.



WHO CAN EDIT THE CNA?

A newly created version of a returned CNA will retain the same Submitter and Preparer partnership. The CNA can only be sent to the original Preparer who prepared it for editing the data.

DO FLAG COMMENTS NEED TO BE RE-ENTERED?

No, new versions of CNAs will retain all the previously entered flag response comments so long as the corresponding flags remain after the revision. If there are new flags generated with the edited data, new flag comments must be entered.

APPENDIX F

DATA FIELDS BY USER PATH

Some input fields will vary depending on the program, CNA type, agency, and Submitter. The tables below display which data fields appear for a given CNA. Each row represents a different “user pathway” (i.e., a program, CNA type, agency, and user) and each column represents a different data field. There are separate tables for the following input screens (all other input screens are identical for all user pathways):

- CNA Summary
- Assessment Scope
- Participants

To find the data fields that will show for your CNA, find the row for your HUD or USDA program on the leftmost column in the tables below.

LEGEND

n/a	Data item or query is not applicable to the user on this path. These queries may not appear in the User Interface (UI) for a user on this path.
o	Optional, value may be entered but is not required.
x	Data entry or user response needed and "correct" response is not predetermined by path, e.g., an ID # is required, but the particular sequence of numbers or characters is not known.
s	Data item mandatory at submission, but not prior to submission.
Condition = True, then x	Data item response required conditioned on response to prior query; e.g., if Intrusive Test = Yes, then type of test and name of provider.
Response supplied, e.g., "Yes"	Data entry is required but the value to be entered is known because of the path chosen and is therefore supplied. These queries may not appear in the UI for a user on this path.
Auto Fill	Data entry is needed but is auto-calculated by the user's prior entries, usually arithmetic calculations.

CNA SUMMARY

PROGRAM/PATH	CNA TYPE	AGENCY SUBMITTE	Associated Agency	Property ID #	FHA #	AMAS #	RAD PIC #	Prop Name	Street	City	State	Zip
213 Cooperative	AD	HUD Lender		n/a	x	n/a	n/a	x	x	x	x	x
220-Redevelopment	AD	HUD Lender		o	s	n/a	n/a	x	x	x	x	x
221(d)(4)	AD	HUD Lender		o	s	n/a	n/a	x	x	x	x	x
LIHTC 221(d)(4) Pilot	AD	HUD Lender		o	s	n/a	n/a	x	x	x	x	x
223(a)(7) Limited Refi	AD	HUD Lender		x	s	n/a	n/a	x	x	x	x	x
223(f) Refi-Acq	AD	HUD Lender		o	s	n/a	n/a	x	x	x	x	x
223(f) refi of 202	AD	HUD Lender		x	s	n/a	n/a	x	x	x	x	x
231 Elderly	AD	HUD Lender		n/a	s	n/a	n/a	x	x	x	x	x
241(a) Supplemental	AD	HUD Lender		x	s	n/a	n/a	x	x	x	x	x
10 yr update, insured mtg	AM	HUD Lender		x	o	n/a	n/a	x	x	x	x	x
PPCLoan Mod, insured mtg	AM	HUD Lender		x	o	n/a	n/a	x	x	x	x	x
TPA, assumption of insured mtg	AM	HUD Lender		x	o	n/a	n/a	x	x	x	x	x
M2M	AR	HUD PAF		x	n/a	n/a	n/a	x	x	x	x	x
RAD-PH New Construction	AR	HUD PHA		n/a	n/a	n/a	x	x	x	x	x	x
RAD-PH Sub Rehab	AR	HUD PHA		n/a	n/a	n/a	x	x	x	x	x	x
RAD - PH Rehab	AR	HUD PHA		n/a	n/a	n/a	x	x	x	x	x	x
PRACs	AM	HUD Assessor		x	n/a	n/a	n/a	x	x	x	x	x
HAP Renew al	AM	HUD Assessor		x	n/a	n/a	n/a	x	x	x	x	x
Rent Increase/HAP amendmer	AM	HUD Assessor		x	n/a	n/a	n/a	x	x	x	x	x
Change of Ownership Uninsure	AM	HUD Assessor		x	n/a	n/a	n/a	x	x	x	x	x
Other Asset Management	AM	HUD Assessor		x	n/a	n/a	n/a	x	x	x	x	x
RAD - MF	AR	HUD Assessor		x	n/a	n/a	n/a	x	x	x	x	x
RAD - PRAC	AR	HUD Assessor		x	n/a	n/a	n/a	x	x	x	x	x
Post-M2M	AR	HUD Assessor		x	n/a	n/a	n/a	x	x	x	x	x
Other Asset Recapitalization	AR	HUD Assessor		x	n/a	n/a	n/a	x	x	x	x	x
As - Is	USDA	USDA Assessor		n/a	n/a	x	n/a	x	x	x	x	x
As - Improved	USDA	USDA Assessor		n/a	n/a	x	n/a	x	x	x	x	x
Post Rehab	USDA	USDA Assessor		n/a	n/a	x	n/a	x	x	x	x	x
Construction	CN	USDA Assessor		n/a	n/a	x	n/a	x	x	x	x	x
NONE	NONE	NONE		n/a	n/a	n/a	n/a	x	x	x	x	x

CNA SUMMARY (CONTINUED)

PROGRAM/PATH	CNA TYPE	AGENCY	SUBMITTE	Contact Name	Contact Street	Contact City	Contact St	Contact Zip	Contact Person	Contact Phone	Contact E-mail	Role/Type e only	Owner	Borrower or Applicant	Elderly/Fam	First Assisted	Hire & Needs Assessor	Send Assessor
213 Cooperative	AD	HUD	Lender	x	x	x	x	x	x	x	x	x	x	x	x	Yes		Send
220-Redevelopment	AD	HUD	Lender	x	x	x	x	x	x	x	x	x	x	x	x	Yes		Send
221(d)(4)	AD	HUD	Lender	x	x	x	x	x	x	x	x	x	x	x	x	Yes		Send
LHTC 221(d)(4) Pilot	AD	HUD	Lender	x	x	x	x	x	x	x	x	x	x	x	x	Yes		Send
223(a)(7) Limited Refi	AD	HUD	Lender	x	x	x	x	x	x	x	x	x	x	x	x	Yes		Send
223(f) Refi-Acq	AD	HUD	Lender	x	x	x	x	x	x	x	x	x	x	x	x	Yes		Send
223(f) refi of 202	AD	HUD	Lender	x	x	x	x	x	x	x	x	x			Yes		Send	
231 Elderly	AD	HUD	Lender	x	x	x	x	x	x	x	x			Elderly	Yes	Yes		Send
241(a) Supplemental	AD	HUD	Lender	x	x	x	x	x	x	x	x				Yes	Yes		Send
10 yr update, insured mtg	AM	HUD	Lender	x	x	x	x	x	x	x	x				Yes	Yes		Send
PPC/Loan Mod, insured mtg	AM	HUD	Lender	x	x	x	x	x	x	x	x				Yes	Yes		Send
TPA, assumption of insured mtg	AM	HUD	Lender	x	x	x	x	x	x	x	x				Yes	Yes		Send
M2M	AR	HUD	PAE	x	x	x	x	x	x	x	x				Yes	Yes		Send
RAD-PH New Construction	AR	HUD	PHA	x	x	x	x	x	x	x	x				Yes	x		Send if AA32=Yes, or n/a if no
RAD-PH Sub Rehab	AR	HUD	PHA	x	x	x	x	x	x	x	x				Yes	x		Send if AA33=Yes, or n/a if no
RAD - PH Rehab	AR	HUD	PHA	x	x	x	x	x	x	x	x				Yes	Yes		Send
PRACs	AM	HUD	Assessor	x	x	x	x	x	x	x	x				Yes	n/a		n/a
HAP Renewal	AM	HUD	Assessor	x	x	x	x	x	x	x	x				Yes	n/a		n/a
Rent Increase/HAP amendm	AM	HUD	Assessor	x	x	x	x	x	x	x	x				Yes	n/a		n/a
Change of Ownership Uninsure	AM	HUD	Assessor	x	x	x	x	x	x	x	x				Yes	n/a		n/a
Other Asset Management	AM	HUD	Assessor	x	x	x	x	x	x	x	x				x	n/a		n/a
RAD - MF	AR	HUD	Assessor	x	x	x	x	x	x	x	x				Yes	n/a		n/a
RAD - PRAC	AR	HUD	Assessor	x	x	x	x	x	x	x	x				Yes	n/a		n/a
Post-M2M	AR	HUD	Assessor	x	x	x	x	x	x	x	x				Yes	n/a		n/a
Other Asset Recapitalization	AR	HUD	Assessor	x	x	x	x	x	x	x	x				Yes	n/a		n/a
As - Is	USDA	Assessor	x	x	x	x	x	x	x	x	x				Yes	n/a		n/a
As - Improved	USDA	Assessor	x	x	x	x	x	x	x	x	x				Yes	n/a		n/a
Post Rehab	USDA	Assessor	x	x	x	x	x	x	x	x	x				Yes	n/a		n/a
Construction CN	USDA	Assessor	x	x	x	x	x	x	x	x	x				Yes	n/a		n/a
NONE	NONE	NONE	NONE	x	x	x	x	x	x	x	x				x	n/a		n/a

ASSESSMENT SCOPE

PROGRAM/PATH	CNA TYPE	AGENCY	SUBMITTER	MSA-non MSA	Inspection or Construction Completion Date	# Vacants	Unit Sample %	Intrusive Tests	Test & Tester	Estimate Prd # Yr (max 20)	Energy Audit Green Build?	Energy Pro Name & Quals	Seismic Thresholds
213 Cooperative	AD	HUD	Lender	x	x	n/a	n/a	n/a	n/a	20	x	If Col L=Yes, then x; If Col L=No, then n/a	x
220-Redevelopment	AD	HUD	Lender	x	x	n/a	n/a	n/a	n/a	20	x	If Col L=Yes, then x; If Col L=No, then n/a	x
221(d)(4)	AD	HUD	Lender	x	x	n/a	n/a	n/a	n/a	20	x	If Col L=Yes, then x; If Col L=No, then n/a	x
LIHTC 221 (d)(4) Pilot	AD	HUD	Lender	x	x	n/a	n/a	n/a	n/a	20	x	If Col L=Yes, then x; If Col L=No, then n/a	x
223(a)(7) Limited Refi	AD	HUD	Lender	x	x	x	x	x	If Col I=Yes, then x; If Col I=No, then n/a	x	x	If Col L=Yes, then x; If Col L=No, then n/a	x
223(f) Refi-Acq	AD	HUD	Lender	x	x	x	x	x	If Col I=Yes, then x; If Col I=No, then n/a	20	x	If Col L=Yes, then x; If Col L=No, then n/a	x
223(f) refi of 202	AD	HUD	Lender	x	x	x	x	x	If Col I=Yes, then x; If Col I=No, then n/a	20	x	If Col L=Yes, then x; If Col L=No, then n/a	x
231 Elderly	AD	HUD	Lender	x	x	n/a	n/a	n/a	n/a	20	x	If Col L=Yes, then x; If Col L=No, then n/a	x
241(a) Supplemental	AD	HUD	Lender	x	x	x	x	x	If Col I=Yes, then x; If Col I=No, then n/a	x	x	If Col L=Yes, then x; If Col L=No, then n/a	x
10 yr update, insured mtg	AM	HUD	Lender	x	x	x	x	x	If Col I=Yes, then x; If Col I=No, then n/a	x	No	n/a	x
PPC/Loan Mod, insured mtg	AM	HUD	Lender	x	x	x	x	x	If Col I=Yes, then x; If Col I=No, then n/a	x	No	n/a	x
TPA, assumption of insured mtg	AM	HUD	Lender	x	x	x	x	x	If Col I=Yes, then x; If Col I=No, then n/a	x	No	n/a	x
M2M	AR	HUD	PAE	x	x	x	x	x	If Col I=Yes, then x; If Col I=No, then n/a	20	Yes	x	x
RAD-PH New Construction	AR	HUD	PHA	x	x	n/a	n/a	n/a	n/a	20	Yes	x	x
RAD-PH Sub Rehab	AR	HUD	PHA	x	x	n/a	n/a	n/a	n/a	20	Yes	x	x
RAD - PH Rehab	AR	HUD	PHA	x	x	x	x	x	If Col I=Yes, then x; If Col I=No, then n/a	20	Yes	x	x
PRACs	AM	HUD	Assessor	x	x	x	x	x	If Col I=Yes, then x; If Col I=No, then n/a	20	x	If Col L=Yes, then x; If Col L=No, then n/a	x
Post-M2M	AR	HUD	Assessor	x	x	x	x	x	If Col I=Yes, then x; If Col I=No, then n/a	20	Yes	x	x
Other Asset Recapitalization	AR	HUD	Assessor	x	x	x	x	x	If Col I=Yes, then x; If Col I=No, then n/a	20	Yes	x	x
	As - Is	USDA	Assessor	x	x	x	x	x	If Col I=Yes, then x; If Col I=No, then n/a	20	n/a	n/a	n/a
	As - Improved	USDA	Assessor	x	x	x	x	x	If Col I=Yes, then x; If Col I=No, then n/a	20	n/a	n/a	n/a
	Post Rehab Construction CNA	USDA	Assessor	x	x	x	x	x	If Col I=Yes, then x; If Col I=No, then n/a	20	n/a	n/a	n/a
NONE	NONE	NONE	NONE	o	x	o	x	o	n/a	20	n/a	n/a	n/a
				o	x	o	x	o		x	x	If Col L=Yes, then x; If Col L=No, then n/a	o

APPENDIX G

CNA E-TOOL FIELD CHARACTER LIMITS

The table below includes the character limits of all user input fields in CNA e-Tool. It also includes the minimum and maximum values and decimal places allowed, where applicable.

Assessment Section	Subsection (If Applicable)	User Input Field	Character Limit (Includes Decimal)	Minimum Value	Maximum Value	Decimal Places
CNA Summary		Property Name	100			
CNA Summary		FHA Number	9			
CNA Summary		USDA AMAS ID	9			
CNA Summary		RAD PIC Number	50			
CNA Summary		Property ID	9			
CNA Summary		Property Street Address	100			
CNA Summary		City	100			
CNA Summary		Zip	10			
CNA Summary		Firm Name	100			
CNA Summary		Firm Street Address	100			
CNA Summary		City	100			
CNA Summary		Zip	10			
CNA Summary		Contact Name	100			
CNA Summary		Firm Contact Phone	100			
CNA Summary		Firm Contact Email	100			
Participant		Firm Name	100			
Participant		Street Address	100			
Participant		City	100			
Participant		Zip	10			
Participant		Contact Name	100			
Participant		Phone	100			
Participant		Email	100			
Assessment Scope		Seismic SXS	17	0	9999999999999999	3
Assessment Scope		Seismic SX1	17	0	9999999999999999	3
Assessment Scope		Sample Percentage Question	8	0	100	4
Assessment Scope		Estimate Period Question	2	1	20	
Assessment Scope		Test Descriptions and Third Party Name/ Credentials	2000			
Assessment Scope		Enter Energy Professional's Firm & Personal Name(s) and Credentials	100			

Assessment Section	Subsection (If Applicable)	User Input Field	Character Limit (Includes Decimal)	Minimum Value	Maximum Value	Decimal Places
Assessment Scope		Reviewer Comments	2000			
Assessment Scope		MSA Question	1			
Assessment Scope		Vacant Units Question	10	0	2147483647	
Site		Site Name	200			
Site		Street Address	100			
Site		City	100			
Site		Zip	10			
Site		Total Site Sq. Ft	17	0	999999999999999	2
Site		Total Buildings	16	0	9999999999999999	
Unit Type		Unit Type Name	200			
Unit Type		Sq. Ft	17	0	999999999999999	2
Unit Type		Bedrooms	5	0	32767	
Unit Type		Bathrooms	5	0	99	2
Unit Type		Shower Heads	5	0	32767	
Unit Type		Sinks/Laundry Hookups	5	0	32767	
Unit Type		Toilets	8	0	99999	2
Component, Alts & Recs	Component	Assessed RUL	4	-499	499	
Component, Alts & Recs	Component	Explain Assessed RUL, Existing Condition	2000			
Component, Alts & Recs	Component	Component Name	200			
Component, Alts & Recs	Component	Location	200			
Component, Alts & Recs	Component	Quantity	9	0	999999	2
Component, Alts & Recs	Component	Unit Cost	17	0	9999999999	6
Component, Alts & Recs	Component	Usage/Year	17	0	999999999999999	
Component, Alts & Recs	Component	Year Installed	4	0	9999	
Component, Alts & Recs	Component	Std EUL		-50	150	
Parking		Improved Vehicular Surface Area (Sq. Ft)	13	0	9999999999	2
Parking		Open Spaces (inc. # Accessible)	10	0	2147483647	
Parking		Accessible Open Spaces	10	0	2147483647	
Parking		Carport Spaces (inc. # Accessible)	10	0	2147483647	
Parking		Accessible Carport Spaces	10	0	2147483647	

Assessment Section	Subsection (If Applicable)	User Input Field	Character Limit (Includes Decimal)	Minimum Value	Maximum Value	Decimal Places
Units & Common Spaces	Unit	Total Number of Units	5	1	32767	
Units & Common Spaces	Unit	Mobility-Impaired Units	5	0	32767	
Units & Common Spaces	Unit	Sensory-Impaired Units	5	0	32767	
Units & Common Spaces	Unit	Spaces Per Unit (inc. # Accessible)	5	0	32767	
Units & Common Spaces	Unit	Accessible Spaces Per Unit	5	0	32767	
Units & Common Spaces	Common Space	Common Space Name	100			
Units & Common Spaces	Common Space	Sq. Ft.	13	0	9999999999	2
Units & Common Spaces	Common Space	Shower Heads	5	0	32767	
Units & Common Spaces	Common Space	Toilets	5	0	32767	
Units & Common Spaces	Common Space	Faucets/Hookups	5	0	32767	
Units & Common Spaces	Common Space	Common Space Comments	2000			
Units & Common Spaces	Common Space	Spaces (inc. # Accessible)	5	0	32767	
Units & Common Spaces	Common Space	Accessible Spaces	5	0	32767	
Unit Inspected	Common Space	Unit Number	100			
Unit Inspected	Common Space	Comments	2000			
Utility Type and Rate		Utility Provider Name	100			
Utility Type and Rate		Utility Rate Per Unit	10	0	9999	5
Utility Type and Rate		As of Date	10			
Utility Type and Rate		Comments	2000			
Financial Factor		Initial Deposit to RfR	15	0	99999999999999	2
Financial Factor		Yr-1 Annual Deposit Per Unit	15	0	99999999999999	2
Financial Factor		Initial Rate	8	0	200	5
Financial Factor		Next Rate	8	0	200	5
Financial Factor		RY of Change	7	0	9999	2
Financial Factor		Submitter's comments RfR Funding Plan	2000			
Component, Alts & Recs	Recommendation	Months to Complete	5	0	32767	
Component, Alts & Recs	Recommendation	Duration	5	0	32767	

Assessment Section	Subsection (If Applicable)	User Input Field	Character Limit (Includes Decimal)	Minimum Value	Maximum Value	Decimal Places
Component, Alts & Recs	Recommendation	Location	200			
Component, Alts & Recs	Recommendation	Scope of Accessibility Compliance	100			
Component, Alts & Recs	Recommendation	Class of Work (Scope)	100			
Component, Alts & Recs	Recommendation	Detailed Comments	2000			
Decision		Months to Complete	5	0	32767	
Decision		Duration	5	0	32767	
Decision		Location	200			
Decision		Scope of Accessibility Compliance	100			
Decision		Class of Work (Scope)	100			
Decision		Detailed Comments	2000			
Component, Alts & Recs	Alternative	Alternative Name	200			
Component, Alts & Recs	Alternative	EUL Standard	5	1	32767	
Component, Alts & Recs	Alternative	Comments or explain changed component type and/or EUL	2000			
Component, Alts & Recs	Alternative	Quantity	10	0	2147483647	
Component, Alts & Recs	Alternative	Unit Cost	17	0	9999999999	6
Component, Alts & Recs	Alternative	Usage/Year	17	0	999999999999	4
Flag		Submitter Response	2000	0		
Flag		Reviewer Response	200	0		
Building		Building Name/ Address	100			
Building		Year Built	4	0	9999	
Building		Year of Rehab	4	0	9999	
Building		Replace Cost of Building per Sq. Ft.	17	0	9999999999	6
Building		Source of Replacement Cost Data	100			
Building		Stories Above Grade	8	0	99999	2
Building		Stories Below Grade	8	0	99999	2
Building		Number of Elevators	5	0	32767	
Building		Foundation Comments	2000			
Building		Construction Type Comments	2000			

Assessment Section	Subsection (If Applicable)	User Input Field	Character Limit (Includes Decimal)	Minimum Value	Maximum Value	Decimal Places
Financial Factors		Loan Amount	N/A	0		2
Financial Factors		Loan Annual Interest Rate	N/A	0		5
Financial Factors		Amortization Period in Years	N/A	0	50	5
Financial Factors		Amortization Start Date	10			
Financial Factors		% of Cumulative Principal Paid ROR Deficit Allowance	N/A	0		5
CompsAltsRecs		Green House Gas Emissions Total (Metric Tons CO ²)	9	-999999.99	999999.99	2
Owner Assignment		First Name	N/A			22
Owner Assignment		Last Name	N/A			2
Owner Assignment		User ID	50			
Owner Assignment		Email Address	N/A			
Assessment Scope		National Risk Index Score	10	-999999.999	-999999.999	3

APPENDIX H

CNA E-TOOL FLAGS AND THEIR CAUSE NOTES

The table below includes all of the flags that could appear for a CNA. For each flag, the table outlines its severity, description, the cause note template, flag occurrence criteria, and data mapping.

Flag ID	Severity	Description	Cause Note Template	Flag Occurrence Criteria	Data Mapping
AA-002	Warning	Utility Data Report Not Attached	The EPA Portfolio Manager Report (SEDI or SEP) was not attached to the Assessment	Flag occurs if EPA Portfolio Manager SEP Rpt not attached to CNA	Attachments
AA-013	Warning	The assessment submitted to HUD for review is more than 6 months old	More than 6 months have passed between when the CNA was submitted to HUD for review and when the assessment was completed	Flag occurs if Primary Agency field is "HUD" and Date of Site Visit field in Assessment Scope is over 6 months ago from current date	Property section -> HUD and Date of Site Visit fields
DA-004	Warning	Accessible Unit not on an accessible path	Inspected Accessible Unit not on an accessible path; see Site: <SiteID/>, Building: <BuildingID/>, Unit Type: <UnitType/>	Flag occurs if Accessible Path Needed field is "Yes" AND the Accessible Path Exists field is "No" in the Inspection Samples section, for any inspected unit	Inspection Samples section -> Accessible Path Needed and Accessible Path Exists fields
DA-005	Warning	Fair Housing Act Covered Unit not in compliance	Compliance requirements not met for Fair Housing Act Covered Unit; Site: <SiteID/>, Building: <BuildingID/>, Unit Type: <UnitType/>, Unit Number: <UnitNumber/>	Flag occurs if Fair Hsg Act Covered Unit field is "YES" AND Fair Hsg Act Compliant field is "No" in Inspection Samples section, for any inspected unit	Inspection Samples section -> Fair Hsg Act Covered Unit and Fair Hsg Act Compliant fields
DA-006	Warning	Public space does not meet Americans with Disabilities Act (ADA)	Public space does not meet Americans with Disabilities Act (ADA) requirements; see Site: <SiteID/>, Building: <BuildingID/>, Common Space: <CommonSpace/>	Flag occurs if Compliance Required field is "Yes" AND the Compliance Exists field is selected "No" in the Common Spaces section, for any common space	Common Spaces section -> Compliance Required and Compliance Exists fields
DA-009	Warning	No Fair Housing Act Covered Units inspected for Unit Type	No Fair Housing Act Covered Units inspected on Unit Type; see Site: <SiteID/>, Building: <BuildingID/>, Unit Type: <UnitType/>	Flag occurs if Fair Housing Act Applies field is "Yes" in the Buildings section AND the Fair Hsg Act Covered Unit field is "No" in the Inspection Samples section, for any inspected unit	Buildings section -> Fair Housing Act Applies field Inspection Samples section -> Fair Hsg Act Covered Unit field
DA-012	Warning	Occupancy and/or Building Permit Missing	Building was built between 1990 and 1992 and the Occupancy Permit Date and/or Building Permit Date field is blank; see Site: <SiteID/>, Building: <BuildingID/>	Flag occurs if Year Built field is between 1990–1992 AND the Occupancy Permit Date field OR Building Permit Date field is NULL, for any building	Buildings section -> Year Built, Occupancy Permit Date, and Building Permit Date fields
DA-013	Warning	504 UFAS Full Accessible Unit with no path	The inspected unit was identified as a 504 UFAS Fully Accessible Unit and did not have an identified Accessible Path; see Site: <SiteID/>, Building: <BuildingID/>, Unit Type: <UnitType/>, Unit Number: <UnitNumber/>	Flag occurs if Accessible Path Exists field is "No" and 504/UFAS Compliance field is either "Mobility" or "Sensory" in the Inspection Samples section, for any inspected unit	Inspection Samples section -> Accessible Path Exists and 504/UFAS Compliance fields
DU-001	Warning	Minimum percentage of Units not Inspected for a Building	The minimum number of units were not inspected for a Building; see Site: <SiteID/>, Building: <BuildingID/>	Flag occurs if the percentage of the number of inspected sample units in the Inspection Samples section out of the total number of units for the building is less than the Minimum Sample % field in the Property section, for any building If there are no Units assigned to a Building (e.g., Maintenance Office) where the Unit count in that Building (Units & Common Spaces Tab) is "0", meaning, no Unit Type is assigned to that building and/or the count is "0", this flag DU-001 should not apply to all	Inspection Samples section -> # of Inspected Sample units Property section -> Minimum Sample % field

Flag ID	Severity	Description	Cause Note Template	Flag Occurrence Criteria	Data Mapping
DU-002	Warning	Insufficient Vacant Units Inspected	An insufficient number of vacant units were inspected	Flag occurs if the total number of inspected sample units is less than the number of inspected sample units with Unit Status of "Vacant"	Units section -> Total # of units Inspection Samples section -> Unit Status field
DU-003	Severe	Number of Vacant Units greater than the Number of Units	The number of vacant units cannot be greater than the total number of units on property	Flag occurs if the total number of units on the property is LESS than the number of inspected sample units with Unit Status of "Vacant"	Units section -> Total # of units Inspection Samples section -> Unit Status field
DU-004	Severe	Total Mobility Impaired Units cannot be greater than Total Units	The total number of Mobility Impaired Units cannot be greater than the total number units for a Unit Type; see Site: <SiteID/>, Building: <BuildingID/>, Unit Type: <UnitType/>	Flag occurs if the Total Mobility Impaired Units entered for a selected Unit Type ID is greater than the Number of Units field for the same Unit Type ID of that selected building in the Units section	Units section -> Total Mobility Impaired Units and Number of Units fields
DU-005	Severe	Total Sensory Impaired Units cannot be greater than Total Units	The total number of Sensory Impaired Units cannot be greater than the total number units for a Unit Type; see Site: <SiteID/>, Building: <BuildingID/>, Unit Type: <UnitType/>	Flag occurs if the Total Sensory Impaired Units entered for a selected Unit Type ID is greater than the Number of Units field for the same Unit Type ID of that selected building in the Units section	Units section -> Total Sensory Impaired Units and Number of Units field
DU-006	Warning	A minimum of 2% of the units (or at least one unit, whichever is greater) must be for residents with sensory disabilities	This property is federally assisted. Total unit(s) on property is <#>. Minimum sensory impaired units should be <#> (# or 2% of the units, whichever is greater, must be sensory impaired)	Flag occurs if the Federally Assisted field in the Property section is YES AND the total of Sensory Impaired Units at the property is less than 2% of the grand total number of units at the property (total # of sensory impaired units/total unit count <2%)	Property section -> Federally Assisted field Units section -> Total Sensory Impaired Units
DU-008	Warning	A minimum of 5% of the units (or at least one unit, whichever is greater) must be for residents with mobility disabilities	This property is federally assisted. Total unit(s) on property is <#>. Minimum mobility impaired units should be <#> (# or 5% of the units, whichever is greater, must be mobility impaired)	Flag occurs if the Federally Assisted field in the Property section is YES AND the total of Mobility Impaired Units at the property is less than 5% of the grand total number of units at the property (total # of mobility impaired units/total unit count < 5%)	Property section -> Federally Assisted field Units section -> Total Mobility Impaired Units field
DU-009	Warning	Minimum percentage of Units not Inspected for Unit Type	The minimum number of Units were not inspected for a Unit Type; see Unit Type: <UnitType/>	Flag occurs if the percentage of the number of Inspected Sample units in the Inspection Samples section for each Unit Type (as defined in the Unit Type Definition section) is less than the Minimum Sample % field in the Property section	Inspection Samples section -> # of Inspected Sample units Property section -> Minimum Sample % field
DV-022	Warning	Number of Bedrooms is "0" on Unit Type	Number of Bedrooms field has been left blank or contains an invalid value for a Unit Type; see Unit Type: <UnitType/>	Flag occurs if Bedroom field in the Units section is ZERO for any Unit Type ID of any building	Units section -> Bedroom field
DV-023	Warning	Number of Bathrooms is "0" on Unit Type	Number of Bathrooms field has been left blank or contains an invalid value for a Unit Type; see Unit Type: <UnitType/>	Flag occurs if Bathroom field in the Units section is ZERO for any Unit Type ID of any building	Units section -> Bathroom field
DV-024	Warning	Number of Sinks is "0" on Unit Type	Number of Sinks field has been left blank or contains an invalid value for a Unit Type; see Unit Type: <UnitType/>	Flag occurs if Faucets/Hookups field in the Units section is ZERO for any Unit Type ID of any building	Units section -> Faucets/Hookups field
DV-025	Warning	Number of Toilets is "0" on Unit Type	Number of Toilets field has been left blank or contains an invalid value for a Unit Type; see Unit Type: <UnitType/>	Flag occurs if Toilets field in the Units section is ZERO for any Unit Type ID of any building	Units section -> Toilets field

Flag ID	Severity	Description	Cause Note Template	Flag Occurrence Criteria	Data Mapping
DV-038	Severe	Quantity is "0" for Components	Quantity is "0" or contains an invalid value on a Component; see Component Type: <ComponentType/>, Component: <Component/>	Flag occurs if Quantity field in the Components section is "0", for any component	Components section -> Quantity field
DV-087	Warning	Please explain "0" Utility Usage (consumption) for this Component or Alternative	Please explain "0" Utility Usage for Component or Alternative: <Component/> (or) <Alternative/>: <TypeOfUtility/>	Flag occurs if for any Component or Alternative, the Type of Utility is selected but the Usage/Year is "0" (NULL is not allowed by UI, but "0" is allowed)	Utility Type Usage section -> Comments field
DV-126	Warning	Attachment Topic Section and Type undefined	There are files attached in the Attachments section that do not have Narrative Topic Section or Attachment Type Name selected: <Attachment/>	Flag occurs if the Narrative Topic Section or Attachment Type Name is NULL (unselected)	Attachments -> Comments field
DV-223	Severe	Common Space Comments field left blank for "Other" Common Space Type selected	The Comments field has been left blank or contains an invalid value on a Common Space identified as Common Area Type = "Other"; see Site: <SiteID/>, Building: <BuildingID/>, CommonSpace: <CommonSpace/>	Flag occurs if Type of Common Space Type field is "Other" AND Common Space Comments field is NULL from Common Spaces section, for any common space	Common Spaces section -> Type of Common Space and Comments field
DV-284	Severe	For this Program Type, Date of Site Visit (i.e. CNA Effective Date) cannot be in the future.	For this Program Type, Date of Site Visit (i.e. CNA Effective Date) cannot be in the future	Flag occurs when: CNA Program/ Event is one of the following: 223(a)(7) Limited Refi; 223(f) Refi-Acq; 223(f) Refi of 202, AND the CNA Effective Date is greater than current calendar date	
FN-002	Warning	Annual Ending Balance falls below Allowable Minimum Balance	Annual Ending Balance per Unit falls below Allowable Minimum Balance in year <RelativeYear/>	Flag occurs if an Ending Balance field is less than the Required Minimum RfR Balance field in the Financial Schedule Report, for any year, for Asset Management CNAs	CNA Type (Asset Management) -> Financial Schedule Report -> Ending Balancer per Unit and Require Minimum RfR Balance per Year fields
FN-003	Warning	Annual Ending Balance falls below Allowable Minimum Balance	Annual Ending Balance per Unit falls below Allowable Minimum Balance in year <RelativeYear/>	Flag occurs if an Ending Balance field is less than the Required Minimum RfR Balance field in the Financial Schedule Report, for years 03 to 10, for Asset Dev and Asset Recap CNAs	CNA Type (Asset Development & Asset Recap) -> Financial Schedule Report -> Ending Balancer per Unit and Require Minimum RfR Balance per Year fields
GS-002	Warning	Seismic Hazard Analysis Report is required	Seismic rating SX1 and/or SXS indicates Seismic Hazard Analysis Report is required	Flag occurs if all the following are true: <ul style="list-style-type: none"> • Either Seismic - SXS field is greater than or equal to 0.330 OR Seismic - SX1 field is greater than or equal to 0.133 • There is no "Seismic Hazard Analysis Report" attachment type in the Attachments with the CNA 	Property section -> Seismic - SXS, Seismic SX1, and Agency Program fields Attachments section -> Attachment Type
OC-001	Severe	Occupancy Permit Date cannot be earlier than Year Built	Date of Occupancy Permit cannot be before the Year built date on a Building; see Site: <SiteID/>, Building: <BuildingID/>	Flag occurs if Occupancy Permit Date field has a date less than (before) Year Built field from Buildings section, for any building	Buildings section -> Occupancy Permit Date and Year Built fields
OC-002	Severe	Occupancy Permit Date cannot be earlier than Building Permit Date	Date of Occupancy Permit cannot be before the Building Permit date on a Building; see Site: <SiteID/>, Building: <BuildingID/>	Flag occurs if Occupancy Permit Date field has a date less than (before) Building Permit Date field from Buildings section, for any building	Buildings section -> Occupancy Permit Date and Building Permit Date fields
OC-003	Severe	Building Permit Date cannot be later than Year Built	Date of Building Permit cannot be later than the Year Built date on a Building; see Site: <SiteID/>, Building: <BuildingID/>	Flag occurs if Building Permit Date field has a date greater than (later) Year Built field from Buildings section, for any building	Buildings section -> Building Permit Date and Year Built fields

Flag ID	Severity	Description	Cause Note Template	Flag Occurrence Criteria	Data Mapping
PB-001	Warning	Utility Rate cannot be Zero	The Utility Rate cannot be "0"; see Utility Type: <TypeOfUtility/>	Flag occurs if Utility Rate per Unit field is "0" for any utility entered in the Utility Type Usage section	Utility Type Usage section -> Utility Rate per Unit field
PB-002	Warning	The Standard Estimated Useful Life (EUL) differs from the default EUL for a component	The standard EUL value has been modified from xx to yy, see Component Type: <ComponentType/>	Flag occurs if Standard Estimated Useful Life field in the Components section differs from the default Estimated Useful Life, for any component	Components section -> Standard Estimated Useful Life field
PB-003	Warning	The Standard Estimated Useful Life (EUL) is 0 and differs from the default EUL for a component.	Estimated Useful Life is "0" on a Component; see Component Type: <ComponentType/>, Component: <Component/>	Flag occurs if Standard Estimated Useful Life field in the Components section is 0 and differs from the default Estimated Useful Life, for any component	Components section -> Standard Estimated Useful Life field
PI-003	Warning	Elevators Required for 2-5 Story Building	Number of Elevators cannot be "0" for 2-5 Story Buildings; see Site: <SiteID/>, Building: <BuildingID/>	Flag occurs if Building Types field selection starts with "2-5 Story..." AND the Number of Elevators field is "0" from the Buildings section, for any building	Buildings section -> Building Types and Number of Elevators fields
PI-005	Warning	Elevators Required for High-rise Building	Number of Elevators cannot be "0" for High-rise Buildings; see Site: <SiteID/>, Building: <BuildingID/>	Flag occurs if Building Type field is "High Rise" AND the Number of Elevators field is "0" from the Buildings section, for any building	Buildings section -> Building Types and Number of Elevators fields
PI-008	Warning	Accessible Parking Spaces needed for Commercial/Public Accommodation spaces identified on Common Space	Common Public Space identified as Leasing/Marketing or Rentable Commercial Space. Check Parking for Accessible Parking Spaces; see Site: <SiteID/>, Building: <BuildingID/>, Common Space: <CommonSpace/>	Flag occurs if Commercial/Public Accommodation field is "Yes" AND Type of Common Space field selection is "Rentable Commercial Space" OR "Leasing/Marketing" from Common Spaces section, for any common space, AND the count is "0" for all Accessible Open Spaces, Accessible Carport Spaces, and Accessible Spaces (Common Garage Parking Spaces)	Common Spaces section -> Commercial/Public Accommodation and Type of Common Space fields
PI-009	Informational	Fair Housing Act covered Building	<BuildingID/> on <SiteID/> must comply with the design and construction requirements of the Fair Housing Act	Flag occurs if all the following are true: <ul style="list-style-type: none"> • Occupancy Permit Date is greater than (after) 03/13/1991 • Building Permit Date is greater than (after) 06/15/1990 • Year Built field is greater than (after) or equal to 1990 	Buildings section -> Occupancy Permit Date, Building Permit Date, and Year Built fields
PI-010	Warning	Replacement Cost of Building per SQ left blank too low	The Replacement Cost of Building per SQ is less than \$1 per SQ; see Site: <SiteID/>, Building: <BuildingID/>	Flag occurs if Replacement Cost of Building per SF field in the Buildings section is less than 1, for any building	Buildings section -> Replacement Cost of Building per SF field
PI-011	Severe	Year of Rehab cannot be prior to Year Built	Year of Rehab cannot be before than Year Built; see Site: <SiteID/>, Building: <BuildingID/>	Flag occurs if Year of Rehab field is less than (before) Year Built field in the Buildings section, for any building	Buildings section -> Year of Rehab and Year Built fields
PI-015	Warning	Total Accessible Garage Parking is greater than the total Garage Parking spaces	Total Accessible Garage Parking spaces is greater than the total # of Garage Parking spaces; see Site: <SiteID/>	Flag occurs when the # of Accessible Garage Parking Spaces is greater than the total # of Garage Parking Spaces	
PI-016	Warning	Total Accessible Surface Parking is greater than the total Surface Parking spaces	Total Accessible Surface Parking is greater than the total # of Surface Parking spaces; see Site: <SiteID/>	Flag occurs when the # of Accessible Surface Parking Spaces is greater than the total # of Surface Parking Spaces	
PI-017	Warning	Total Accessible Carport Parking is greater than the total Covered Parking spaces	Total Accessible Carport Parking is greater than the total # of Carport Parking spaces; see Site: <SiteID/>	Flag occurs when the # of Accessible Carport Parking Spaces is greater than the total # of Carport Parking Spaces	

PI-018	Warning	Total In-Unit Accessible Garage Parking is greater than the total In-Unit-Garage Parking spaces.	Total In-Unit Accessible Parking is greater than the total In-Unit-Garage Parking spaces; see Site: <SiteID/>, Building: <BuildingID/>, Unit Type: <UnitType/>	Flag occurs when the # of Accessible In-Unit Parking Spaces is greater than the total # of In-Unit Parking Spaces
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Flag ID	Severity	Description	Cause Note Template	Flag Occurrence Criteria	Data Mapping
PV-001	Warning	Total Accessible Surface parking is less than 2% of Total Surface Parking	Total Accessible Surface Parking is less than 2% of Total Surface Parking; see Site: <SiteID/>	[total # of accessible Garage spaces] divided by [total Garage parking spaces], PER SITE. This should only apply to SITES with at least one BUILDING with the indicator, "Fair Housing Act?" = YES Flag occurs if Total Surface Spaces field is greater than 0 AND the result of Accessible Surface Spaces field divided by Total Surface Spaces field is less than 0.02, for any site. This should only apply to SITES with at least one BUILDING with the indicator, "Fair Housing Act?" = YES	Sites section -> Total Surface Spaces and Accessible Surface Spaces fields PER SITE
PV-002	Warning	Total Accessible Covered parking is less than 2% of Total Covered Parking	Total Accessible Covered Parking is less than 2% of Total Covered Parking; see Site: <SiteID/>	Flag occurs if Total Covered Surface Spaces field is greater than 0 AND the result of Accessible Covered Surface Spaces field divided by Total Covered Surface Spaces field is less than 0.02, PER SITE. This should only apply to SITES with at least one BUILDING with the indicator, "Fair Housing Act?" = YES	Sites section -> Total Covered Surface Spaces and Accessible Covered Surface Spaces fields PER SITE
PV-003	Warning	Total Accessible Garage parking is less than 2% of Total Garage Parking	Total Accessible Garage Parking is less than 2% of Total Garage Parking; see Site: <SiteID/>	Flag occurs if Total Common Garage Spaces field is greater than 0 AND the result of Accessible Common Garage Spaces field divided by Total Common Garage Spaces field is less than 0.02, PER SITE. This should only apply to SITES with at least one BUILDING with the indicator, "Fair Housing Act?" = YES	Sites section -> Total Common Garage Spaces and Accessible Common Garage Spaces fields PER SITE
PV-004	Warning	At least one space of each Parking Type at the Site (e.g., Surface Open, Carport, Garage) must be Accessible.	The following Parking Type at <SiteID> requires at least one Accessible parking space: <ParkingTypeID>; <ParkingTypeID>; ...	Flag occurs if the Total Parking Spaces count is greater than 0, AND the total Accessible Parking Space count is less than 1, for each of the Parking Type at the Site	Sites section -> Total Surface Spaces and Accessible Surface Spaces fields; Total Covered Surface Spaces and Accessible Covered Surface Spaces fields; Total Common Garage Spaces and Accessible Common Garage Spaces fields; Total In-Unit Garage Spaces and Accessible In-Unit Garage Spaces fields
PV-005	Warning	Property total In-Unit Accessible Garage Parking count is less than 2% of Property total In-Unit Garage Parking spaces	Total of In-Unit Accessible Garage Parking count is less than 2% of the total In-Unit Garage Parking spaces at the Property	Flag occurs if the Property Total (Parking Section) of "Garage Parking - In-Unit" Percent Accessible is less than 2%. This should only apply to SITES with at least one BUILDING with the indicator, "Fair Housing Act?" = YES	Units section -> Total Unit Garage Spaces and Accessible Garage Spaces fields
PV-100	Severe		There is missing or invalid data entry for one or more required fields.	There is missing or invalid data entry for one or more required fields. See: <Assessment Entry Screen/>	Flag occurs when there's one or more missing/invalid data (basically any fields that turn 'Red') on any of the Assessment Entry Screens.
RR-004	Informational	Decision Timing does not match Recommendation Timing	Decision Timing does not match the Assessor chosen Recommendation Timing; see Component: <Component/>, Alternative: <Alternative/>	Flag occurs if the When field from Repair Replace Recommendation section does not match the When field in the Repair Replace Decision section, for any decision	Repair Replace Recommendation section -> When field Repair Replace Decision section -> When field

Flag ID	Severity	Description	Cause Note Template	Flag Occurrence Criteria	Data Mapping
RR-005	Warning	"One-time Repair" chosen for an End of Cycle Action	The Repair/Replacement "Action" type "One-time Repair" cannot be scheduled for "End of Cycle"; see Recommendation/Decision for Component: <Component/>, Alternative: <Alternative/>	Flag occurs if Action field is "One-Time Repair" AND When field is "End of Cycle" in the Repair Replace Recommendation and Decision sections, for any recommendation or decision	Repair Replace Recommendation section -> Action and When fields Repair Replace Decision section -> Action and When fields
RR-006	Informational	"Repair" chosen for an End of Cycle Action	The Repair/Replacement "Action" type "Repair" has been scheduled for "End of Cycle"; see Recommendation/Decision for Component: <Component/>, Alternative: <Alternative/>	Flag occurs if Action field is "Repair" AND When field is "End of Cycle" in the Repair Replace Recommendation and Decision sections, for any recommendation or decision	Repair Replace Recommendation section -> Action and When fields Repair Replace Decision section -> Action and When fields
RR-008	Severe	"End of Cycle" timing chosen for a Life Safety or Accessibility Recommendation/Decision	A Recommendation/Decision indicated as either Life Safety or Accessibility cannot have an "End of Cycle" timing; see Component: <Component/>, Alternative: <Alternative/>	Flag occurs if When field is "End of Cycle" AND either Accessibility Indicator field is "Yes" OR Life Safety Indicator field is "Yes" in the Repair Replace Recommendation and Decision sections, for any recommendation or decision	Repair Replace Recommendation section -> When, Accessibility Indicator, and Life Safety Indicator fields Repair Replace Decision section -> When, Accessibility Indicator, and Life Safety Indicator fields
RR-009	Warning	Estimated Useful Life for a Repair is less than Remaining Useful Life	The indicated "Estimated Useful Life" of a repair is less than the "Remaining Useful Life" on the component being repaired; see Component: <Component/>, Alternative: <Alternative/>	Flag occurs if "Action" field in Repair Replace Recommendation or Decision section is "Repair" AND the EUL field in the Alternatives section is less than the Assessed Remaining Useful Life field in the Components section for the corresponding recommendation/decision	Repair Replace Recommendation section -> Action field Repair Replace Decision section -> Action field Alternatives section -> EUL field Components section -> Assessed Remaining Useful Life field
UL-002	Warning	Remaining Useful Life Less Than 10%	End of Cycle chosen for Component with less than 10% life remaining; see Component: <Component/>, Alternative: <Alternative/>	Flag occurs if "When" field from Repair Replace Recommendation or Decision section is "End of Cycle" AND the Percent Recommended Remaining Useful Life field in the Components section for the corresponding component is less than 10, for any recommendation or decision	Repair Replace Recommendation section -> When field Repair Replace Decision section -> When field Components section -> Percent Recommended Remaining Useful Life field
UL-003	Warning	This Component may need to be replaced as Non-Critical Repair.	This Component is scheduled to be replaced with its Alternative in 2 years or less. This Component may need to be replaced as Non-Critical Repair now; see Component: <Component/>, Alternative: <Alternative/>	Flag occurs when: <ul style="list-style-type: none"> The Component's Standard RUL is less than 3; AND the Alternative is Recommended with "When" = "End of Cycle" 	