



Is a New Approach Needed for ESMS Training?

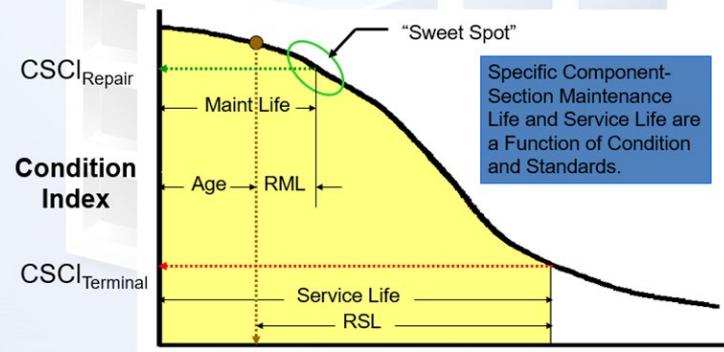
Presenters Kurt Sorensen
Paul Schowalter
DIGON Systems

The background features a dark grey surface with a large, thin black geometric shape resembling a stylized 'X' or a four-pointed star. This shape is partially obscured by a bright green diagonal band that runs from the bottom left to the top right. In the bottom right corner, there is a solid blue triangular shape. The overall composition is minimalist and modern.

Why are we here?

15 Years of BUILDER SMS Training

Recall, Condition/Maintenance Life/RML/ Service Life/RSL Relationships



Source: D.R. Uzarski, Ph.D., P.E.



But are they effective?

Are agencies confident that employees and consultants are well-trained?

The discussion is about how agencies are planning to support ESMS knowledge needs.



Presentation Flow | Objectives

- » Classroom Training Events
- » Static Training Guides, Process Documentation, & User Guides
- » Training Videos
- » Learning Management System (LMS)
- » Online Knowledge Management

Classroom Training Events



- **Are you using classroom training?**
- **Is it effective?**
- **Who is your primary audience?**
- **Do you want more?**
- **Have you found virtual training more or less useful compared to in-person training?**
- **Do you have a plan for ESMS classroom events?**

Static Training Guides, Process Documentation, & User Guides

USCG Training Guide



 Sustainment Management System

United States Coast Guard
BUILDER™ SMS
Inventory and Assessment Guide

INTRODUCTION
SAFETY AND PREPARATION
BUSINESS RULES
INVENTORY
INSPECTIONS AND REINSPECTIONS
ADDITIONAL INFORMATION
INDIVIDUAL SYSTEMS:
A10 FOUNDATIONS
A20 BASEMENT CONSTRUCTION
B10 SUPERSTRUCTURE
B20 EXTERIOR ENCLOSURE
B30 ROOFING
C10 INTERIOR CONSTRUCTION
C20 STAIRS
C30 INTERIOR FINISHES
D10 CONVEYING
D20 PLUMBING
D30 HVAC
D40 FIRE PROTECTION
D50 ELECTRICAL
E10 EQUIPMENT
F10 SPECIAL CONSTRUCTION

SEPTEMBER 2023

United States Coast Guard



B10 Superstructure

General
The B10 Superstructure system includes:
• B1070 BUILDING CONSTRUCTION

Inventory and Assessment Guidance

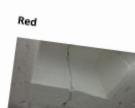
B107010 FRAME, FLOORS, AND ROOF

Component Type	Design SF	UDM	Group	Major	Inventory	Age Based	Sectioning
Building Frame, Floors, and Roof	200 SF	Y	N	N	Y	Building	Building
PEMB	50 SF	Y	N	N	Y	Building	Building
Roof Superstructure	50 SF	Y	N	N	Y	Building	Building

Condition Rating Examples

Green 

Amber 

Red 

Specific Business Rules/Lessons Learned

- The subtype of Building Frame, Floors, and Roof will encompass all types of structural frame and includes all columns, beams, girders, joists, and roof and floor decks. Canopies and other open-air structures with columns and/or framing would be sectioned under B204001.
- If building frame distresses are visible, provide a direct condition rating and do not age-base the Section.
- If a building is a pre-engineered metal building, use the PEMB subtype.
- If a building has exterior bearing walls holding up a roof without any other visible support, use the Roof Superstructure subtype.
- Use the total square footage of the building for the quantity.

Section Names

- If the superstructure is all from one year, the Section Name should be N/A regardless of the number of floors in the building.

10 Superstructure

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Static Training Guides, Process Documentation, & User Guides

NOAA Training Guide

United States Coast Guard BUILDER™ SMS Inventory and Assessment Guide

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Sustainment Management System

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- **Are you using static documents?**
- **Are they effective?**
- **Who is your primary audience?**
- **Do you want more?**
- **Do you have a plan for ESMS documentation?**

Training Videos

Army
Reassessment

A10 SystemsTraining HD

SUSTAINMENT MANAGEMENT
TCX SYSTEM

Army BUILDING

0:01 / 5:34

A10 SystemsTraining HD

STANDARD FOUNDATIONS

- Foundation Walls A101001
- Grade Beams A101001
- Strip Footings A101001
- Spread Footings A101002

Play (k)

0:16 / 5:34

A10 FOUNDATIONS

DIGON

Training Videos

USCG
Training

The image shows a screenshot of a USCG training video. The video player interface includes a play bar at the bottom with a play button, a progress bar showing 0:00 / 17:33, and a red 'WORKING IN BUILDER' banner at the bottom right. The main content is a reliability matrix titled 'USCG 2 Working In BUILDER'. The matrix is organized into three columns representing risk levels: 'LOW RISK OF FAILURE', 'MEDIUM RISK OF FAILURE', and 'HIGH RISK OF FAILURE'. Each column contains three rows of data, each with a CI value and a color-coded status (Green, Amber, or Red). The matrix also includes descriptive text for each status.

LOW RISK OF FAILURE		MEDIUM RISK OF FAILURE		HIGH RISK OF FAILURE	
CI 100	GREEN +	CI 80	AMBER +	CI 50	RED +
CI 95	GREEN	CI 71	AMBER	CI 30	RED
CI 88	GREEN -	CI 61	AMBER -	CI 10	RED -

LOW RISK OF FAILURE

- CI 100, GREEN +: New. No action needed.
- CI 95, GREEN: Slight degradation or loss of reliability. Preventative maintenance needed.
- CI 88, GREEN -: Minor degradation or loss of reliability. Corrective maintenance needed.

MEDIUM RISK OF FAILURE

- CI 80, AMBER +: Moderate degradation or loss of reliability. Minor repair needed.
- CI 71, AMBER: Significant degradation or loss of reliability. Moderate repair needed.
- CI 61, AMBER -: Major degradation or loss of reliability. Major repair needed.

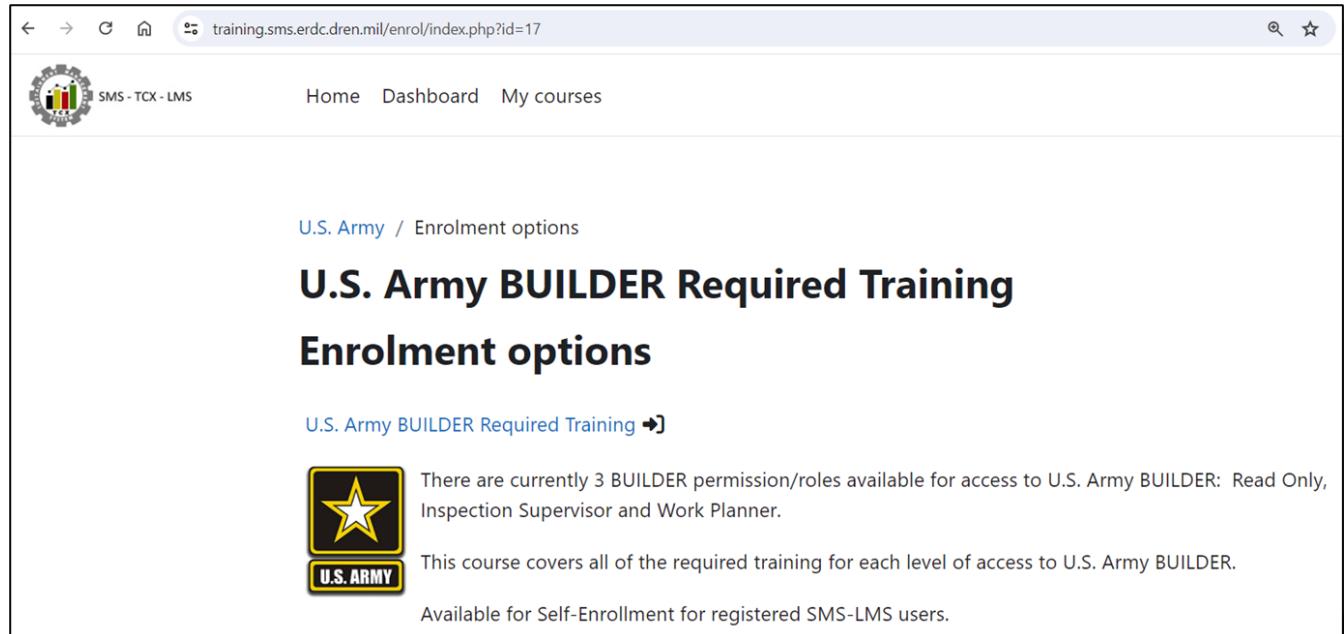
HIGH RISK OF FAILURE

- CI 50, RED +: Severe degradation or loss of reliability. Rehabilitation needed.
- CI 30, RED: Total degradation or loss of reliability. Partial replacement needed.
- CI 10, RED -: Inoperable. Replacement needed.

- **Are you using videos?**
- **Are they effective?**
- **Who is your primary audience?**
- **Do you want more?**
- **Do you have a plan for ESMS training videos?**

Learning Management System (LMS)

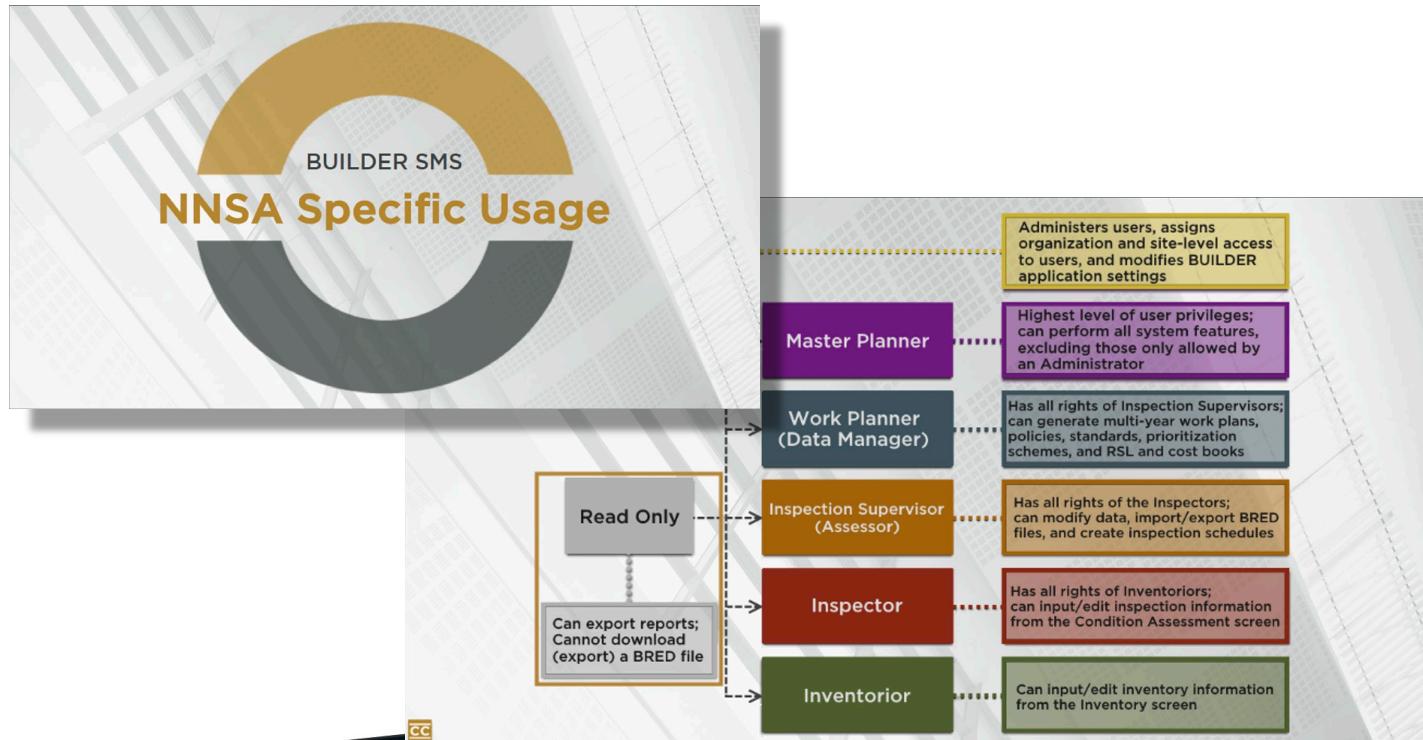
SMS
TCX Training



The screenshot shows a web browser window with the URL training.sms.erdc.dren.mil/enrol/index.php?id=17. The page is titled "U.S. Army / Enrolment options". The main content is titled "U.S. Army BUILDER Required Training" and "Enrolment options". A blue link "U.S. Army BUILDER Required Training" is present. Below it is a yellow box containing a yellow star and the text "U.S. ARMY". To the right of the box, text states: "There are currently 3 BUILDER permission/roles available for access to U.S. Army BUILDER: Read Only, Inspection Supervisor and Work Planner." Further down, it says: "This course covers all of the required training for each level of access to U.S. Army BUILDER." At the bottom, it says: "Available for Self-Enrollment for registered SMS-LMS users."

Learning Management System (LMS)

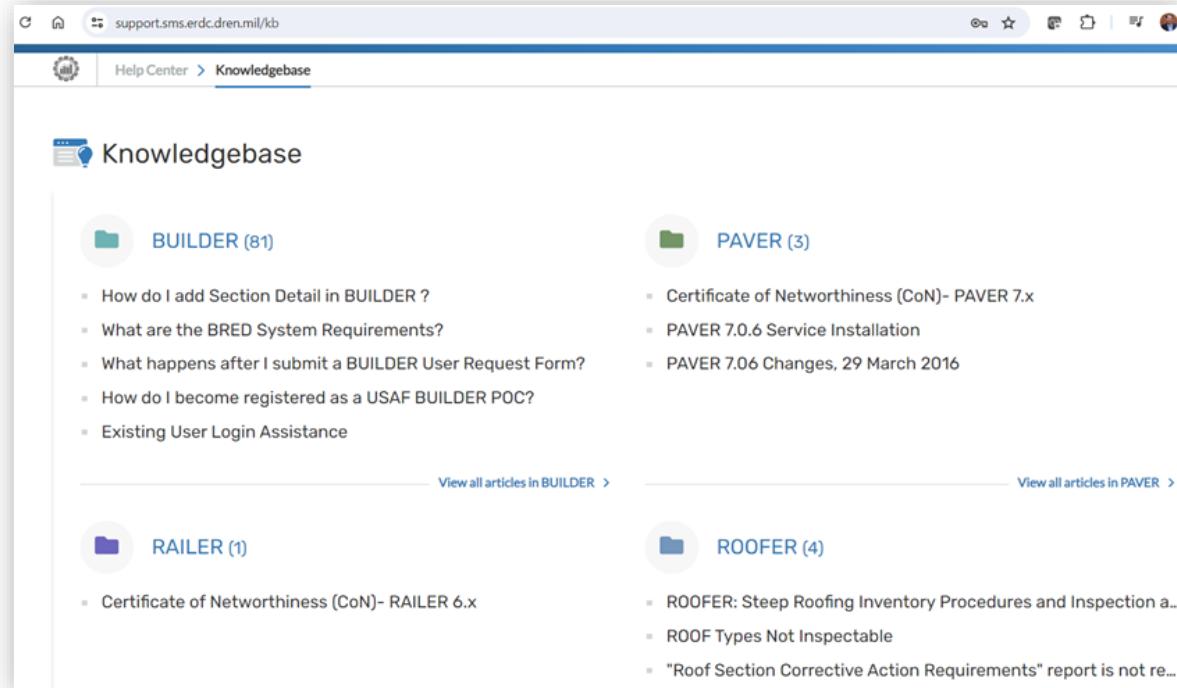
NNSA
Online
Training



- **Are you using an LMS?**
- **Is it effective?**
- **Who is your primary audience?**
- **Do you want more?**
- **Do you have a plan for an ESMS LMS?**

Knowledge Management System

SMS TCX
Support Site



The screenshot shows a web browser displaying the SMS TCX Knowledgebase. The URL in the address bar is support.sms.erdc.dren.mil/kb. The page title is "Help Center > Knowledgebase". The main content area is titled "Knowledgebase" with a blue icon. It lists four categories with their respective article counts and a "View all articles" link for each:

- BUILDER (81)**
 - How do I add Section Detail in BUILDER ?
 - What are the BRED System Requirements?
 - What happens after I submit a BUILDER User Request Form?
 - How do I become registered as a USAF BUILDER POC?
 - Existing User Login Assistance[View all articles in BUILDER >](#)
- PAVER (3)**
 - Certificate of Networthiness (CoN)- PAVER 7.x
 - PAVER 7.0.6 Service Installation
 - PAVER 7.06 Changes, 29 March 2016[View all articles in PAVER >](#)
- RAILER (1)**
 - Certificate of Networthiness (CoN)- RAILER 6.x
- ROOFER (4)**
 - ROOFER: Steep Roofing Inventory Procedures and Inspection a...
 - ROOF Types Not Inspectable
 - "Roof Section Corrective Action Requirements" report is not re...

Knowledge Management System

NNSA Online Training

THE 'YEAR ESTIMATED' CHECKBOX (Cont.) BUILDER™ Q&A LIBRARY 1.1

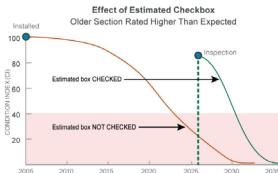
EXAMPLE

Let's say you have a 17-year-old water heater. That is 17% of its 10-year Design Life. You inspect it and give it a Green Minus rating, which is a CI of 88. If the Estimated box is not checked, BUILDER lowers the Current Estimated CI to 38 to account for the higher risk of failure on a Section that old.

BUILDER will then draw a new Lifecycle Curve, starting from 38. If the Estimated box is checked, BUILDER puts more weight on your rating and keeps the CI of 88 as the Current Estimated CI, and a new Lifecycle Curve is drawn from there.

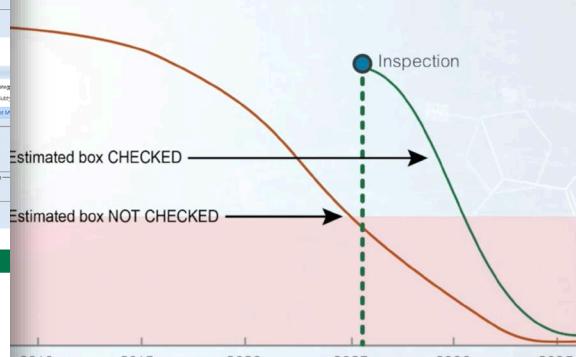
If you do not want BUILDER to make a large adjustment to the Current Estimated CI on a Section past its Design Life, you may check the Estimated box (even if you know the actual year) and BUILDER will rely more heavily on the assessor's rating.

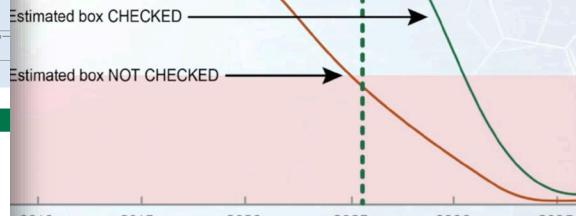
Effect of Estimated Checkbox
Older Section Rated Higher Than Expected



SUMMARY

- There is an Estimated box to check if the year of a Section is unknown.
- That box changes the way BUILDER calculates the Current Estimated CI on older Sections.
- If not checked and BUILDER considers a rating too high based on age, the Current Estimated CI will be adjusted down.
- If checked, BUILDER puts more weight on the assessor's rating for the Current Estimated CI.

Estimated box CHECKED → 

Estimated box NOT CHECKED → 

Inspection

YEAR

2010 2015 2020 2025 2030 2035

Checkbox BUILDER™ Q&A Library 1.1 NNSA National Nuclear Security Administration

- **Are you using knowledge management?**
- **Is it effective?**
- **Who is your primary audience?**
- **Do you want more?**
- **Do you have a plan for ESMS knowledge management?**

Domain or System Specific?



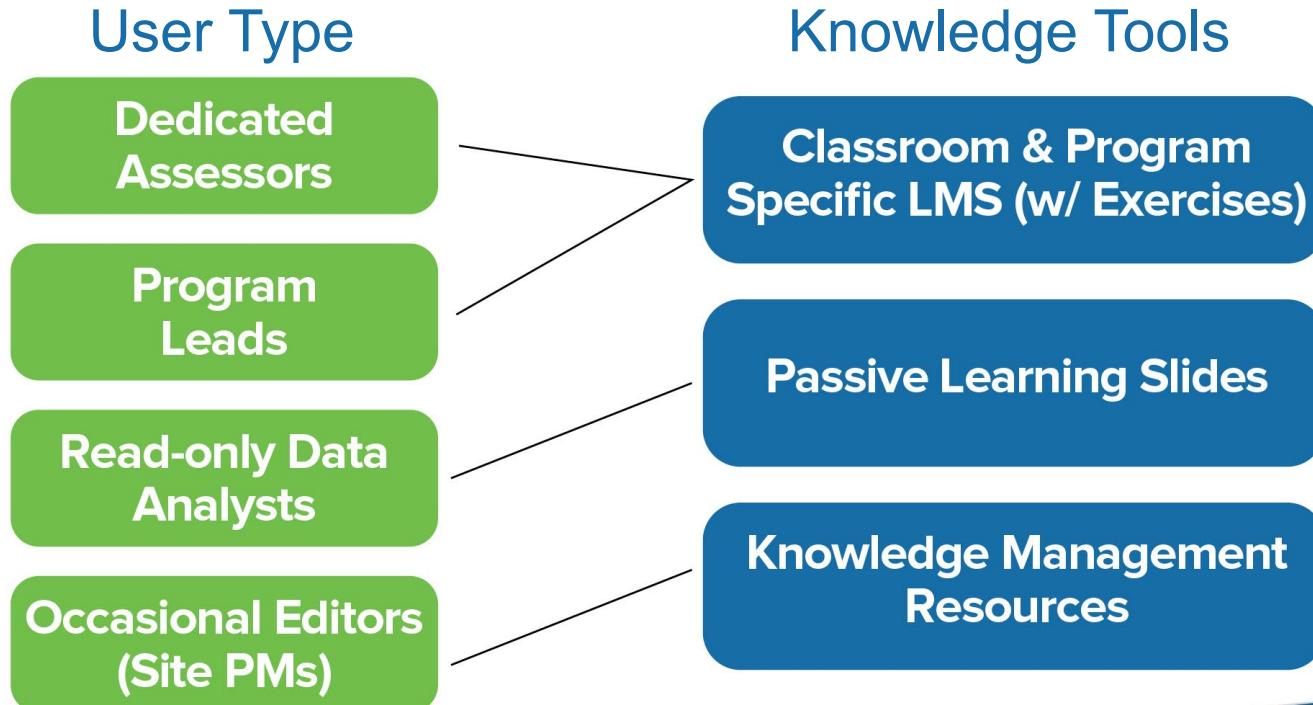
- Do you see value in Domain-specific training?
- Do you see value in System-specific training?

Certification usage in your program?



Value-based Suggestion

Conclusion: Match the tool to the need



RPA

**Real Property Asset
A S S O C I A T I O N**

The core function....

of the Real Property Asset Association is to hold a single, unbiased repository for education resources, continuing education, and learning group events (SMS Summit) in one location for all tenants actively working with real property assets.



APRIL 22-24, 2025
SAN ANTONIO, TEXAS



THANK YOU

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Paul Schowalter : paul@digonsystems.com