



**DEFENSE HEALTH AGENCY**  
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FALLS CHURCH, VIRGINIA 22042-5101

*DHA-IPM 19-005*  
January 27, 2021

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY (MANPOWER AND RESERVE AFFAIRS)  
ASSISTANT SECRETARY OF THE NAVY (MANPOWER AND RESERVE AFFAIRS)  
ASSISTANT SECRETARY OF THE AIR FORCE (MANPOWER AND RESERVE AFFAIRS)  
DIRECTOR OF THE JOINT STAFF  
DEPUTY ASSISTANT SECRETARY OF DEFENSE (HEALTH READINESS POLICY AND OVERSIGHT)  
DEPUTY ASSISTANT SECRETARY OF DEFENSE (HEALTH SERVICES POLICY AND OVERSIGHT)  
DEPUTY ASSISTANT SECRETARY OF DEFENSE (HEALTH RESOURCES MANAGEMENT AND POLICY)

SUBJECT: Interim Procedures Memorandum 19-005, BUILDER™ Sustainment Management System (SMS)

References: See Attachment 1.

Purpose. This Defense Health Agency-Interim Procedures Memorandum (DHA-IPM), based on the authority of References (a) and (b), and in accordance with the guidance of References (c) through (i):

- Establishes the Defense Health Agency's (DHA) procedures for managing data in the U.S. Army Corps of Engineers BUILDER™ SMS.
- This DHA-IPM is effective immediately; it will be incorporated into a new publication. This DHA-IPM will expire effective 12 months from the date of issue.

Applicability. This DHA-IPM applies to DHA and the Military Departments.

Policy Implementation. It is DHA's policy, pursuant to References (a) through (i), that DHA provide guidance on the BUILDER™ SMS implementation and operations process. The Services retain responsibility of BUILDER™ SMS implementation for non-military medical treatment facilities and Service-specific readiness.

Responsibilities. See Attachment 2.

Procedures. See Attachment 3.

Releasability. **Cleared for public release.** This DHA-IPM is available on the Internet from the DHA SharePoint site at: <http://www.health.mil/dhapublications> and is also available to authorized users from the DHA SharePoint site at: <https://info.health.mil/cos/admin/pubs/SitePages/Home.aspx>.

/S/  
RONALD J. PLACE  
LTG, MC, USA  
Director

Attachments:  
As stated

cc:  
Under Secretary of Defense for Personnel and Readiness  
Assistant Secretary of Defense for Health Affairs  
Surgeon General of the Army  
Surgeon General of the Navy  
Surgeon General of the Air Force  
Medical Officer of the Marine Corps  
Joint Staff Surgeon  
Director of Health, Safety, and Work-Life, U.S. Coast Guard  
Surgeon General of the National Guard Bureau  
Director, National Capital Region Medical Directorate

ATTACHMENT 1

REFERENCES

- (a) DoD Directive 5136.01, “Assistant Secretary of Defense for Health Affairs (ASD(HA)),” September 30, 2013, as amended
- (b) DoD Directive 5136.13, “Defense Health Agency (DHA),” September 30, 2013
- (c) DHA-Procedural Instruction 5025.01, “Publication System,” August 24, 2018
- (d) DoD Instruction 6015.17, “Military Health System (MHS) Facility Portfolio Management,” January 13, 2012
- (e) Unified Facilities Criteria 3-701-01, “DoD Facilities Pricing Guide,” June 25, 2018, as amended
- (f) Under Secretary of Defense for Acquisition, Technology and Logistics Memorandum, “Standardizing Facility Condition Assessments,” September 10, 2013
- (g) Assistant Secretary of Defense for Health Affairs Memorandum, “Implementation of BUILDER™ SMS,” January 10, 2014
- (h) DHA BUILDER™ Implementation Resource Guide, August 8, 2013
- (i) DoD 7000.14-R, Volume 2B, Chapter 8, “Facilities Sustainment and Restoration/Modernization,” December 2010, as amended

ATTACHMENT 2  
RESPONSIBILITIES

1. DIRECTOR, DHA. The Director, DHA, will:

a. Implement policy, guidance, and instructions consistent with references established in this DHA-IPM.

b. Prepare and submit program and budget requirements for sustainment, restoration, and modernization pursuant to guidance from the Assistant Secretary of Defense for Health Affairs for the DoD Planning, Programming, Budgeting, and Execution process in accordance with Reference (b).

c. Provide programmatic oversight of the Defense Health Program Operations and Maintenance appropriations in accordance with instructions issued by the Assistant Secretary of Defense for Health Affairs, fiscal guidance issued by the Under Secretary of Defense (Comptroller)/Chief Financial Officer, and applicable law.

d. Establish data standards for effective BUILDER™ SMS management and operations.

2. SECRETARIES OF THE MILITARY DEPARTMENTS. The Secretaries of the Military Departments will:

a. Monitor and report the overall condition, readiness, utilization, and functionality of the Military Health System (MHS) facility portfolio in accordance with Reference (d).

b. Establish internal controls to ensure compliance with established medical facility data management standard.

c. Annually review the policies and standards and lock in the standard for the entire year to account for trends affecting the broader facilities, in conjunction with Chief, Facilities Division, DHA.

3. CHIEF, FACILITIES DIVISION, DHA. The Chief, Facilities Division, DHA, will:

a. Establish BUILDER™ SMS data standards for effective Computer Aided Facility Management/Computerized Maintenance Management System management and operations.

b. Monitor medical facilities' operations to ensure conformance with established standards.

c. Program and budget for BUILDER™ SMS Sustainment.

d. Develop and implement training for Services Facilities Staff on BUILDER™ SMS standards and reporting.

e. Annually review the policies and standards and lock in the standard for the entire year to account for trends affecting the broader facilities, in conjunction with Service Medical Activities (SMAs).

ATTACHMENT 3

PROCEDURES

1. BUILDER™ SMS

a. The BUILDER™ SMS is a web-based software application developed by the Engineering Research and Development Center's Construction Engineering Research Laboratory (CERL) to help civil engineers, technicians, and managers decide when, where, and how to best sustain building infrastructure. For building assets that are vast and diverse, a knowledge-based philosophy drives the BUILDER™ SMS process. The process initiates with an automated download of real property data. Subsequently, a more detailed system inventory is modeled and/or collected that identifies components and key life-cycle attributes, including the age and material type. From this inventory, the Condition Index (CI) measures, for each component, are predicted based on its expected stage in the life-cycle. The objective and repeatable inspections can then be performed on various components to verify their condition with respect to the expected life-cycle deterioration. The level of detail and frequency of these inspections are not fixed, similar to other processes. They are dependent on the knowledge of component criticality, the expected and measured condition and rate of deterioration, and the remaining maintenance and service life. This knowledge-based inspection focuses on the most critical components at the time. In addition to these condition assessments (CAs), functionality assessments can be performed to evaluate user requirement changes, compliance, and obsolescence issues. This provides a comprehensive picture of the overall performance of building assets and their key components.

b. The DHA is tasked with the integrated facilities life-cycle management process to drive efficiencies, standardization, savings, and consistent outcomes. With the current use of Defense Medical Logistics Standard Support-Facilities Management (DMLSS-FM) and the implementation of BUILDER™ SMS, DHA has a unique opportunity to merge the execution side of Operations and Maintenance in DMLSS-FM with the strategic programming side of Sustainment, Restoration, and Modernization (SRM) funding in BUILDER™ SMS. The linking of data will allow the MHS to make better informed decisions.

c. The MHS will use BUILDER™ SMS to facilitate life-cycle planning. At the beginning of the fiscal year (FY), DHA will run a 7-year, constrained by zero scenario (all work plan items are considered unfunded) to perform the following analysis:

(1) Program Obligation Memorandum (POM) Planning (Restoration, Modernization, and non-recurring Sustainment);

(2) Repair versus replace versus Stop Gap analysis;

(3) Investment strategies based on Life-Cycle Cost of each facility;

(4) Funding requirements to reduce inadequate facilities;

- (5) Investments for a critical failed system in an adequate facility;
- (6) Optimizing the current MHS footprint;
- (7) BUILDER™ SMS data trends; and
- (8) Strategic medical investments based on the National Military Strategy.

2. **PROGRAMMING FOR FACILITIES FUNDING.** The DHA SRM and Military Construction (MILCON) POM processes produce the Future Years' Defense Program. Sustainment funding is generated using the DoD facilities sustainment model with DMLSS-FM Real Property Inventory and applying the sustainment unit cost factors and area cost factors based on the physical facility location in accordance with Reference (e). The Restoration and Modernization (R&M) model utilizes the DMLSS-FM inventory and the unfunded requirements found in the Requirements Module in DMLSS-FM. Condition requirements are computed for each building and divided by the Plant Replacement Value (PRV) to generate the Facility Condition Index (FCI). The summary data is used to forecast cost to adequacy based on the DHA FCI thresholds for patient care and research, medical support, and other facilities. When a facility falls below its threshold, R&M funding is then calculated to bring the facility back to the mid-point between FCI of 100 and the threshold.

a. The R&M model for BUILDER was developed to determine MHS R&M funding needs across the portfolio based on identified requirements. By using the Requirements Module in DMLSS-FM, all identified requirements are evaluated whether identified through facilities assessments, BUILDER™ SMS assessments, or entered by the local facilities staff. The R&M model uses these requirements to calculate the FCI. DHA utilizes a version of the FCI:  $FCI = (1 - (\text{deficiencies} / \text{PRV})) * 100$ , in accordance with Reference (i).

b. Once the FCI is determined, the asset is aligned with the DHA R&M model thresholds, which are levels of risks for FCI rating applied to the facility type (category code). The R&M model uses the PRV, FCI, and R&M model thresholds for each asset in the inventory to calculate the cost to the threshold (90, 80, or 60), the cost to halfway between the threshold and 100% (95, 90, or 80), and the cost to 100% of FCI (100) for each asset. These are calculated and displayed in Figure, % of R&M required to buy down inadequate assets.

		% R&M towards condition based inadequate asset elimination						
		50	60	70	80	90	100	
# of Years to Buy off the Requirement		3	\$1,871	\$1,560	\$1,337	\$1,170	\$1,040	\$936
		4	\$1,404	\$1,170	\$1,003	\$877	\$780	\$702
		5	\$1,123	\$936	\$802	\$702	\$624	\$561
		6	\$936	\$780	\$668	\$585	\$520	\$468
		7	\$802	\$668	\$573	\$501	\$446	\$401
		8	\$702	\$585	\$501	\$439	\$390	\$351
		9	\$624	\$520	\$446	\$390	\$347	\$312
		10	\$561	\$468	\$401	\$351	\$312	\$281

**Figure: % of Restoration and Modernization Required to Buy Down Inadequate Assets**

c. The R&M model calculates the minimum, median, or full requirements to develop the R&M funding. It also considers the number of years to buy-down the facilities below their threshold and allows the organization to set the percentage of R&M funding that goes toward the facilities below their threshold. For example, DoD set 6 years as the buy-down period and the calculation for the MHS median of \$2,807 million. With 80% of the available R&M funding going towards the failing facilities, it would require \$585 million for 6 years to buy-down those facilities. The R&M model does not adjust for degrading facilities that degrade over the 6-year period, but is intended to be a snap shot in time. Each year, the R&M model will run to add the new failing facilities and will credit those that were fixed over the previous year. Due to funding variants, the R&M model can adjust for lean funding years and years with supplemental funding.

d. In accordance with Reference (f), DHA requires components to develop mitigation plans for those facilities with an FCI below 60 percent as reported in the latest annual submission to the DoD Enterprise Real Property Index. The mitigation plans will provide the recommended mitigation for repair, replace, mothball, divest, or demolish, the estimated cost of the mitigation action, and an estimated FY for funding the mitigation. The mitigation plan for repair, replace, or demolish will be reported using the DMLSS-FM requirements data until BUILDER™ SMS is fully implemented. Mitigation plans for mothball and divest will require separate reporting. The SMAs will submit proposed mitigation plans for mothball and divest annually into the DHA Facilities Division. DHA is required to submit all mitigation plans annually to the Deputy Under Secretary of Defense for Energy, Installations and Environment in conjunction with their POM submissions. As sites are accepted

under the DHA BUILDER™ SMS implementation, BUILDER™ SMS data should be used to further inform mitigation planning.

e. In BUILDER™ SMS, the FCI is determined using the same calculation as above, but the deficiencies portion of the equation requires comprehension. In BUILDER™ SMS, the deficiencies are a result of unfunded work in the current FY of a site's annual work plan. When DHA runs the annual scenario, and pushes work items into the work plans, all work items will be in an "Awaiting Funds" status contributing to deficiencies in the FCI. Later, if forecasted nonrecurring sustainment and R&M funding is provided to BUILDER™ SMS for a site, only the work falling below the funding cut line will be included in the deficiencies number. This drill is useful in helping the SMAs determine work plan priorities at any level of the organization.

f. Again, in BUILDER™ SMS, only the current FY work items are used for calculating FCI. When BUILDER™ SMS is initially implemented, the amount of work being identified in the work plan may be high, as BUILDER™ SMS is initially identifying all sections triggering work for the first time. This will eventually stabilize as work is completed and sections are updated. BUILDER™ SMS does not forecast modernization, energy, environmental compliance, historical preservation, planning and design, or capability work items and does not consider preventive maintenance work.

3. BUILDER™ SMS DATA. The MHS intends to migrate away from the R&M model and use the BUILDER™ SMS 7-year strategic scenario to generate the R&M requirements for the POM. To make this process repeatable and defensible, BUILDER™ SMS policies and standards are applied consistently across the MHS regardless of SMA. This is a key point to produce consistent and transparent facility data within the MHS.

a. DHA BUILDER™ SMS Implementation and Transition to Sustainment. DHA centrally funded the BUILDER™ SMS implementation effort to maximize consistency and uniformity across the SMAs. The DHA BUILDER™ SMS Work Group, with SMA, U.S. Army Corps of Engineers, and DHA representation managed the implementation.

(1) BUILDER™ SMS is a highly customizable and robust programming tool. The goal is for all entities MHS to be treated equitably and ensure consistent data quality. To achieve this goal, BUILDER™ SMS will be used the same way across the MHS. More specifically, the following must be managed consistently:

- (a) Asset inventory;
- (b) Sectioning;
- (c) Work Configuration;
- (d) Work Plan Prioritization;
- (e) Work Plans Management;

(f) Tracking Work Plans; and

(g) Section Updates.

(2) Another aspect of a consistent BUILDER™ SMS application is setting policies and standards in BUILDER™ SMS. As with a past practice, the SMA and DHA will annually review the polices and standards and lock in the standard for the entire year to account for trends affecting the broader facilities.

b. BUILDER™ SMS Asset Inventory. The primary determining factor for identifying which buildings are inventoried in BUILDER™ SMS is the SRM fund organization. If the SRM responsibility falls to the MHS, it is inventoried in BUILDER™ SMS. Those organizations include: DHA (53), U.S. Army Medical Command (57), U.S. Navy Bureau of Medicine and Surgery (55), and U.S. Air Force Medical Support Agency (56). In certain cases, it may be appropriate to include other buildings as well. If an MHS organization is a tenant in a building and is responsible for the R&M of the tenant space, the tenant space should only be included in the BUILDER™ SMS database. The tenant space in BUILDER™ SMS should match the User Organization data in DMLSS-FM in the asset allocation tab. An example would be a pharmacy inside the base exchange building. MHS is often responsible for the sustainment and replacement of finishes, lighting, service counters, security measures, etc., but not whole building mechanical, electrical, and plumbing. In this instance, only the systems and subsystems MHS is responsible for should be sectioned in the BUILDER™ SMS.

(1) Buildings, where an MHS organization is not responsible for any part of the SRM requirement, should not be included in the BUILDER™ SMS database. However, if inventoried, they must be setup as such so that they do not trigger any work items by setting the facility status to “Transferred” in BUILDER™ SMS.

(2) The Real Property Officer of each SMA will validate any changes to the BUILDER™ SMS inventory annually.

c. Sectioning. Sectioning will be in accordance with the CERL BUILDER™ SMS ’s User Guide (current version).

d. Section Naming. The section naming convention will consist of five sections, with the basic format (e.g., (Floor)(Item)(Year)) separated by dashes in the following order:

(1) Building Number;

(2) Nomenclature acronym found in the Real Property System Standard (e.g., AHU=Air Handling Unit);

(3) Real Property Installed Equipment Unique Identifier, “ALL” (can include additional information) (e.g., ALL 2 LAMP T12);

(4) Floor and/or Location; and

(5) Year.

(a) The maximum character length for the section name is 50.

(b) Example section name=00281-AHU-001-FLR1-2008.

**Table. Standard Location Identifiers**

LOCATION	ACRONYM	LOCATION	ACRONYM
ATTIC	A	<b>EXTERIOR</b>	EXT
BASEMENT	B	NORTH	EXT-N
CRAWLSPACE	CS	SOUTH	EXT-S
SUB-BASEMENT	SB	EAST	EXT-E
INTERSTITIAL SPACE	IS	WEST	EXT-W
MEZZANINE	M	NORTHWEST	EXT-NW
PENTHOUSE	P	NORTHEAST	EXT-NE
GROUND FLOOR	G	SOUTHWEST	EXT-SW
ALL ITEM IN NOMENCLATURE	ALL	SOUTHEAST	EXT-SE
<b>FLOOR</b>	FLR	<b>ROOF</b>	R
1 <sup>ST</sup> FLOOR	FLR-1	NORTH	R-N
2 <sup>ND</sup> FLOOR	FLR-2	SOUTH	R-S
		EAST	R-E
<b>ZONE</b>	Z	WEST	R-W
ZONE 1	Z-1	NORTHWEST	R-NW
ZONE 2	Z-2	NORTHEAST	R-NE
ZONE A	Z-A	SOUTHWEST	R-SW
ZONE AB	Z-AB	SOUTHEAST	R-SE
		<b>COMBINATION FLOOR LOCATION EXAMPLES</b>	
<b>WING</b>	W	1 <sup>ST</sup> FLOOR, WING A	FLR-1-W-A
WING A	W-A	ROOF 1, WEST SIDE OF BUILDING	R-1-W
WING B	W-B	BASEMENT, CRAWLSPACE	B-CS
WING (WEST)	W-W	2 <sup>ND</sup> FLOOR, ALL ITEM IN NOMENCLATURE	FLR2-ALL
WING (EAST)	W-E		

e. **BUILDER™ SMS Policies and Standards.** Condition standards are sets of threshold values that determine whether work is needed when applied to a component-section. Condition policies are rules that are defined by the property, which component-sections will use as condition standards. When a single component-section is covered by more than one condition policy, a policy sequence establishes the order of precedence for applying policies so that only one condition standard is chosen for each component-section. The DHA BUILDER™ SMS Work Group has developed and will continue to refine the BUILDER™ SMS policies and standards annually for approval by DHA leadership. However, the same policies and standards must be used across DHA, annually, for consistent work plans and POM planning.

e. BUILDER™ SMS Work Plan Prioritization. Details on work plan prioritization can be located in the DHA BUILDER™ SMS Implementation Resource Guide (see Reference (h)) BUILDER™ SMS.

f. DHA BUILDER™ SMS Work Configuration. Details on work plan prioritization can be located in the DHA BUILDER™ SMS Implementation Resource Guide (see Reference (h)) BUILDER™ SMS.

g. BUILDER™ SMS Work Plans. DHA intends to make the annual work plan's generation process as efficient and consistent as possible.

(1) For annual work plans, DHA will run a 3-year unconstrained scenario and push those items into each site's work plan. According to the BUILDER™ SMS FY below, this process occurs in November after the SMAs have an opportunity in October to reconcile all previous year completed work.

(2) For scenarios and specifically POM programming, DHA will run a 7-year constrained by zero scenario. This scenario is used strictly for planning and programming, and it will not be pushed into the work plan.

h. Tracking BUILDER™ SMS Work Items. Approved and funded BUILDER™ SMS work plan items will be entered in DMLSS-FM for remediation. DMLSS-FM is and will remain the execution tool for all work requests and requirements. When a requirement is completed and closed in DMLSS-FM, the work plan item should be marked completed in BUILDER™ SMS. This process allows the user to update the section data and gives the site immediate condition improvement. Ongoing reconciliation between DMLSS-FM and BUILDER™ SMS is a strongly recommended best practice. However, no less than once a year, no later than November 1st of the following FY, BUILDER™ SMS work plan items must be reconciled with DMLSS-FM closeout information. Failure to do so will result in erroneous FCI reporting to Office of the Secretary of Defense (OSD). *As a rule, activities should target at least 60% of their annual R&M budget to remediate BUILDER™ SMS work plan items.*

i. Sections Updates. Sections should be updated as requirements are remediated. At a minimum, sections with current year work plan items that have been "stop gapped," "repaired," or "replaced," per the BUILDER™ SMS definition, will be updated in BUILDER™ SMS annually, per paragraph 3.h. above. Additionally, all sections that are repaired or replaced as part of a local action, regional action, equipment replacement, or recapitalization project will also be updated even if they did not appear on the annual work plan. While these section updates may not affect the BUILDER™ SMS FCI, they will contribute to BUILDER™ SMS condition indices.

#### 4. THE BUILDER™ SMS FY

a. October–As described in paragraph 3.h. above, sites reconcile DMLSS-FM requirement and project close-out data with BUILDER™ SMS sections and work plan items. Once the work

item is completed, the status in BUILDER™ SMS should be changed to “Completed” with the requisite project data to properly update the section(s) with new material, installation dates, and equipment information.

b. November–DHA will run work plans and scenarios as described in paragraph 3.g. above. Work items will be pushed from scenario to work plans for each site as the baseline. This data will also inform the annual FCI report to OSD. The strategic 7-year scenario will inform the POM. Data will be shared with SMA for any adjustments or corrections prior to the POM lock. Inadequate asset remediation plans will be developed along with the OSD Failing Facilities Mitigation list.

(1) The future BUILDER™ SMS to DMLSS-FM interface is forecasted to include functionality that will allow an activity facility manager to import the BUILDER™ SMS annual work plan into either the Requirements or Work Request module. Otherwise, this data must be entered in DMLSS-FM manually for execution.

(2) Knowledge-Based Inspections can be imported as preventative maintenance tasks or work requests. A direct rating is sufficient for all Knowledge-Based Inspections, even if a distressed survey is prescribed.

(3) DHA will run the annual FCI report and provide a copy to the SMAs. Services will need to check their FCI data in case a site did not complete their clean-up effort before the December submission date.

c. December–DHA reports FCIs to OSD.

d. February–DHA and SMAs meet to evaluate modifications to BUILDER™ SMS policies and standards for the future years funding and/or implement any changes coming out of the DoD BUILDER™ SMS Governance Control Board.

e. June–BUILDER™ SMS data is finalized and prepared for POM lock.

f. Ongoing–BUILDER™ SMS assessments, section updates, and inventory updates.

## GLOSSARY

### PART I. ABBREVIATIONS AND ACRONYMS

CA	condition assessment
CERL	Construction Engineering Research Laboratory
CI	Condition Index
DHA	Defense Health Agency
DHA-IPM	Defense Health Agency-Interim Procedures Memorandum
DMLSS-FM	Defense Medical Logistics Standard Support-Facilities Management
FCI	Facility Condition Index
FY	fiscal year
MHS	Military Health System
MILCON	Military Construction
OSD	Office of the Secretary of Defense
POM	Program Objective Memorandum
PRV	Plant Replacement Value
R&M	Restoration and Modernization
SMA	Service Medical Activity
SMS	Sustainment Management System
SRM	Sustainment, Restoration, and Modernization

### PART II. DEFINITIONS

annual work plan. A list of work items BUILDER™ SMS identifies for a given FY based on established policies and standards.

CA. An industry term that describes the process of a qualified group of trained industry professionals performing an analysis of the condition of a group of facilities that may vary in terms of age, design, construction methods, and materials.

CERL. Directs its research efforts toward increasing the Army's ability to more efficiently design, construct, operate, and maintain its installations and contingency bases and to ensure environmental quality and safety at a reduced Life-Cycle Cost.

CI. BUILDER™ SMS 's primary condition measure. The CI for each component-section is computed from inspection data that records the type, severity, and density of each distress found.

FCI. The current maintenance, repair, and replacement deficiencies of the facility divided by the current replacement value of the facility. The higher the FCI, the better. The FCI calculation is  $(1(\text{Deferred Work}/\text{Current Replacement Value})) * 100$ .

Knowledge-Based Inspections. Designed to select from your entire inventory a subset of component-sections that should be considered for inclusion in the next round of CAs. Additionally, the feature is able to determine the type of CAs to perform.

MILCON. A list of construction projects submitted to Congress for review and approval. MILCON is defined as any construction, development, conversion, or extension of a new or existing infrastructure asset.

modernization. The alteration of facilities solely to implement new or higher standards (e.g., regulatory changes), to accommodate new functions, or to replace building components that typically last more than 50 years such as foundations and structural members, in accordance with Reference (e).

repair. A BUILDER™ SMS repair is considered significant enough to improve the CI of the asset to 95 out of 100. In addition to an improvement in condition, this results in some extended life for the asset. This additional service life, brought on by repair, defers the capital cost of replacement due from impending failure. Therefore, the monetary benefit of a repair can be calculated by taking the additional service life generated by the repair multiplied by the amortized expenditure of component replacement. This monetary benefit, divided by the cost of the repair, determined the return on the investment. The repair of a component also has benefits due to improved operational performance and reliability which are more difficult to quantify in monetary terms.

replace. To BUILDER™ SMS, replace assumes total replacement is performed for a section or multiple sections. In this case, the CI is restored to a maximum of 100, and deterioration clock is reset with an RSL equal to the original design service life. Since replacement does not defer capital expense, its return of investment ratio based on the logic described for repair is essentially 1. However, replacement of a component may involve some modernization, potentially resolving obsolescence issues. This, in turn, can lead to benefits of efficiency and lower maintenance, operations, or energy costs, which should be accounted for in any return on the investment calculation.

restoration. The restoration of real property to such a condition that it may be used for its designated purpose. Restoration requirements include repair and replacement work to restore facilities damaged by inadequate sustainment, excessive age, natural disaster, fire, accident, or other causes, in accordance with Reference (e).

scenario. Also, called a Strategic Work Plan. A BUILDER™ SMS scenario forecasts work plan data for multiple FYs, up to 10 years in the future. Budgets can be applied to scenarios to provide forecasted backlog, FCI, and portfolio condition. DHA intends to use the BUILDER™ SMS scenario function to identify POM data. Scenarios can be run independent of Work Plans and do not effect FY work plan items.

stop gap measures. Assumed to hold the condition of the asset constant for 1 year. This allows for repair or replacement to be planned in a future year without further degradation occurring. This is applicable for some components where advancing degradation is evident and measures can be taken to slow or halt this degradation for some finite amount of time. These measures are limited in scope and do not improve or restore condition, but they can prevent the component from degrading below some minimum performance requirement until a more permanent solution can be accomplished. Stop Gap repairs are usually less attractive from an economic perspective, because they do not improve condition and only defer larger major repairs or replacement for a short amount of time but may be needed due to a lack of funds for a permanent solution.

sustainment. Major repairs or replacement of facility components that are expected to occur periodically throughout the life-cycle of facilities. This work includes regular roof replacement, refinishing of wall surfaces, repair and replacement of heating and cooling systems, replacing tile and carpeting, and similar types of work, in accordance with Reference (e).