

## **Study Template Agenda**

- Important Dates
- Study Requirements and Purpose
- What's New and Updated
- Energy Additions Resilience Checklist
- Study Sections
- Accessibility Requirements
- New Forms
- Questions



## **Important Dates**

**September 27, 2022** 

Webinar training and posting of recording, new template, and instructions on DCAMM Deferred Maintenance webpage.

Distribution of study template to House Doctors and Agencies.

**November 1, 2022** 

All studies <u>must use</u> new study template when requesting certification from DCAMM Commissioner



#### Why Do You Need A Study?

Required BY LAW in accordance with M.G.L. c. 7C § 59 for Deferred Maintenance (DM) projects with an Estimated Construction Cost (ECC) between \$300,000 and \$5 Million (\$10 Million for UMass)



#### Some Basic Requirements: Is a Study Required?

Projects that are Horizontal Construction of any size

Any project with an ECC of less than \$300,000



Formal Study not required by DCAMM but recommended

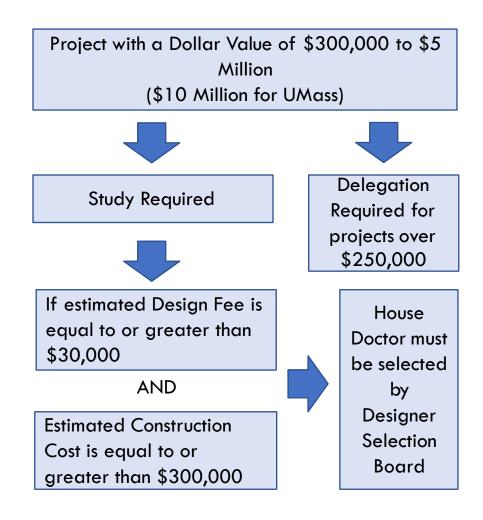


Complete:

**PROJECT FACT SHEET**( for

Non-certifiable Projects)

Attach form to project request in CAMIS





## Q: Why an *UPDATED* Template? A: Get a Study Certified *FASTER* and Address Important State Goals!



- All DM Studies should have the same organization and content to expedite review by DCAMM and speed up certification
- Sections where Studies were often incomplete have been revised with more guidance (see Codes and Accessibility)
- Additional energy information added to address Governor's Executive Order 594:
   Leading by Example: Decarbonizing and Minimizing Environmental Impacts of State Government
- Where applicable, a Climate-Resiliency-Assessment Form to assist our facilities in determining their current vulnerabilities and suggest methods to mitigate these issues
- Instructions have been written to assist Facility Managers and House Doctors (and others?) in understanding statutory requirements (e.g. Designer Selection Board) and requirements for completing necessary steps (e.g. documenting existing conditions)





Step-by-step instructions for Vendors, FM staff, and new House Doctors who may not have developed a DM Study before

#### **2022** Template & Instructions





If the Template is used electronically, recommended text reduces writing time and checklists can be filled in



By completing all sections of the Template, the Study will be certified by DCAMM quicker



The complex Accessibility requirements require less code knowledge and compliance can be quickly established by completing DCAMM Accessibility Forms.



#### What's NEW and UPDATED

- **NEW** Energy Considerations (E.O. 594) and Resiliency Checklist
- UPDATED format & layout of template
- **UPDATED** Instructions packet for a clear explanation of requirements
- **UPDATED** Designer Fee Guidelines 2022
- **UPDATED** 2022 Scoping Form for MAAB Compliance

 REMINDER — Facilities Managers are responsible for reviewing the study and all documents submitted to DCAMM for certification



#### **Energy Scope Additions**

<u>Executive Order 594: Leading by Example: Decarbonizing</u> and Minimizing Environmental Impacts of State Government....

See Executive Order Guidance for Existing Buildings

EO 594 is most applicable to HVAC and envelope improvements. In a Deferred Maintenance Study, the scope of work should include:

- 1. Identify and quantify energy efficiency opportunities.
- 2. Specify highest efficiency equipment.
- 3. Identify the applicable utility providers.
- 4. Identify available utility rebates (see <a href="www.masssave.com">www.masssave.com</a>).
- 5. Eliminate heating oil if possible. If not possible, transition to burn at least 10% biodiesel fuel oil (Executive Order requirements).



#### **Energy Scope Additions**

#### In addition, the House Doctor shall identify:

- 1. Training of facility staff that will be required to ensure operation of the new equipment. Verify training requirements with the manufacturer.
- 2. Existing maintenance contracts that will be affected, or new maintenance contracts that will be required.
- 3. If the project location susceptible to flooding or stormwater and how the proposed work will address it.





https://www.mass.gov/service-details/deferred-maintenance



#### **Contents**

Section 1 Study Summary

Section 2 Existing Conditions Investigation

Section 3 Code Summary

Section 4 Options and Proposed Solution

Section 5 Cost Estimate

Section 6 Proposed Schedule

Section 7 Appendices

Appendix A: MAAB Scoping Form and Checklist

Appendix B: Title of Document

Appendix C: Title of Document



## Section 1 STUDY SUMMARY

- Keep the Study Summary to 1 page if possible
- Indicate how long the information in the study will remain accurate and any factors that will necessitate updating
- Describe the Need, Findings, and Recommendations
- Include Agency Point Person in Acknowledgements
- Be sure that Agency Point Person has signed the Acknowledgement at bottom of page

the User Agency for accuracy including invest	by the House Doctor in this Study has been reviewed and approved by igation of existing conditions, applicability of building code and ion cost, and schedule for design and construction.
Phone Number: Click or tap here to enter text.	E-mail Address: Click or tap here to enter text.



## **Section 2 Existing Conditions Investigation**

- Identify conditions that must be further investigated during design that will require additional services.
   Ex: Surveying, test pits, materials testing
- Include photos with labels that give location and explain what is illustrated by the photo
- Reference prior studies addressing same issue or area of facility
- List of dates and expenses for maintaining equipment or systems
- Potential consequences if issue not addressed



Photo 221 – Deteriorated flashing and parapet connections at west stair tower are typical.



## **Section 3 Code Summary**

- Use checklist in template to determine all relevant codes are addressed
- If a Code Consultant is used, MUST summarize findings in this section and attach full report in Appendices
- ALL studies MUST complete the Scoping Form for MAAB
   Compliance and, when applicable, Accessibility Checklist (see page 12 of instructions for further details) and Resiliency Checklist
- Be sure to identify the Chapter 34 Alteration Level for the proposed scope of work



## **Section 3 Code Summary Checklist**

Building Code 780 CMR 34.00 (2015)	☐ Applicable	☐ Not Applicable
Fire Protection	☐ Applicable	☐ Not Applicable
Plumbing	☐ Applicable	☐ Not Applicable
Electrical	☐ Applicable	☐ Not Applicable
Mechanical	☐ Applicable	☐ Not Applicable
Elevator	☐ Applicable	☐ Not Applicable
Hazardous Materials	☐ Applicable	☐ Not Applicable
Energy	☐ Applicable	☐ Not Applicable
Accessibility	☐ Applicable	☐ Not Applicable
Historic Preservation	☐ Applicable	☐ Not Applicable
Executive Order 594	☐ Applicable	☐ Not Applicable



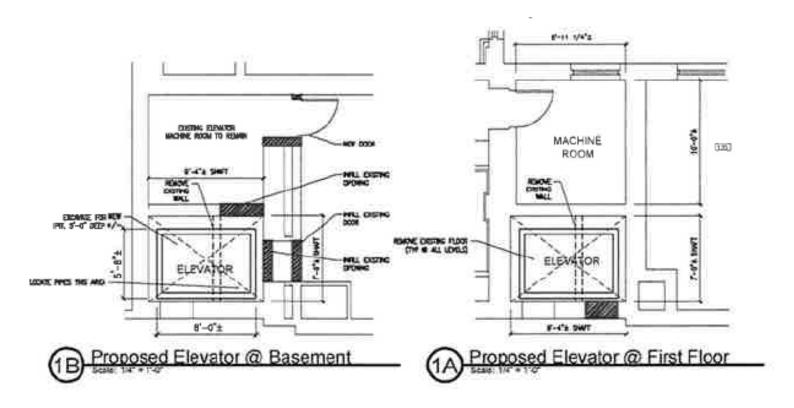
## Section 4 Options and Proposed Solution

- Describe possible options and/or solutions for issue at hand such as repair vs. replacement
- MUST include Schematic Design or its equivalent
- Provide an estimated schedule for Design and Construction



## **Section 4 Options and Proposed Solution**

Sample of Schematic Design:





## **Section 4 Options and Proposed Solution**

If HVAC, mechanical, plumbing, or electrical work is included in the Preferred Solution:

- Identify and quantify energy efficiency opportunities.
- Specify equipment with the highest level of efficiency.
- Identify the applicable utility providers.
- Identify available utility incentives.
- Eliminate heating oil, if possible, or transition to burn at least 10% biodiesel fuel oil. (Executive Order 594 requirement)



## Section 5 Cost Estimate

# Use the format in the Study Template for a Summary Cost Estimate



#### Section 5 - Cost Estimate

TOTAL PROJECT COST (TPC)

Stı	udy Costs	
	Total Consultant Study Fees:	\$
	2. Total Consultant Reimbursable not included in study fee:	\$
	Total study cost	\$
De	esign and Construction Cost Estimate (prepared by: [enter name of cost es	stimator]
[If	a detailed cost estimate is prepared by a consultant, enter the name of the	e firm and the date of the
esi	timate report and attach it as an Appendix.]	
lde	entify cost estimator's assumptions and exclusions	
Α.	Estimated Construction Cost (ECC) based on this Study	\$
	1. ECC date (mo/yr):	
	<ol><li>Projected construction midpoint (mo/yr):</li></ol>	
	<ol> <li>Months elapsed from ECC date to construction midpoint:</li> </ol>	
	<ol> <li>Cost escalation rate (3% per year x ECC):</li> </ol>	\$
	5. Escalated Estimated Construction Cost (ECC x Escalation Rate):	\$
в.	Change Order Contingency (10% of Escalated ECC)	\$
c.	Final Designer's Fee	
	<ol> <li>Fee Rate (%) per Inspector General's guideline:</li> </ol>	
	2. Designer's Fee (Escalated ECC x Fee Rate)	\$
D.	Other Designer Related Expenses not included in design fee	\$
	(e.g. permitting fees, testing, etc.)	
E.	Advertising and Printing (0.1% of Escalated ECC)	\$
F.	Construction Administration/Resident Engineer:	
	<ol> <li>Period of time (weeks):</li> </ol>	
	2. Rate (\$/week):	\$
	3. Reimbursable expenses:	\$
	4. Resident Engineer costs:	\$
G.	Furnishings and/or Equipment	\$



## **Section 6 Proposed Schedule**

- Be sure to use the correct time frames for bidding Ch 149 vs. Ch 30
- Provide time frame in number of weeks, not actual dates
   Example:

Design Development	Six Weeks
DD Review	One Week
90% Construction Documents	Six Weeks
90% CD Review	One Week
100% Construction Documents	Two Weeks
Bid Period	Eight Weeks
Award Contract	Two Weeks
Construction Duration	Forty-Four Weeks



## Section 6 cont. Questions to Consider

- Are variances required?
- Multiple phases to complete construction?
- Operations and Programmatic Needs?
- Long-lead times to purchase equipment or systems?
- Seasonal considerations?



## Section 7 Appendices

- Include the following AT MINIMUM:
  - Completed accessibility Scoping Form and Accessibility Checklist (if applicable)
  - Full Cost Report
  - Schematic Design
  - DCAMM Specification matching the scope of work
  - Resiliency Checklist (if applicable)
- Include the following IF AVAILABLE:
  - Code analysis reports
  - Testing analysis information
  - Cutsheets and other equipment information
  - Quotes for equipment and materials
  - Incident reports



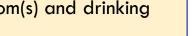
Every DM project must complete the **Scoping Form for MAAB Compliance** 



All elements in the Scope of Work must comply, if applicable. No additional compliance required as part of the project.

OR

All elements in the Scope of Work must comply, if applicable. And there must be a fully accessible entrance, toilet room(s) and drinking fountain.



**ACCESSIBILITY** 

A step-by-step guide to determining whether a DM project triggers accessibility compliance

**AUDIT** 



Complete the **Accessibility Checklist for MAAB Triggered Buildings\*** 

OR

The entire building must be made compliant.

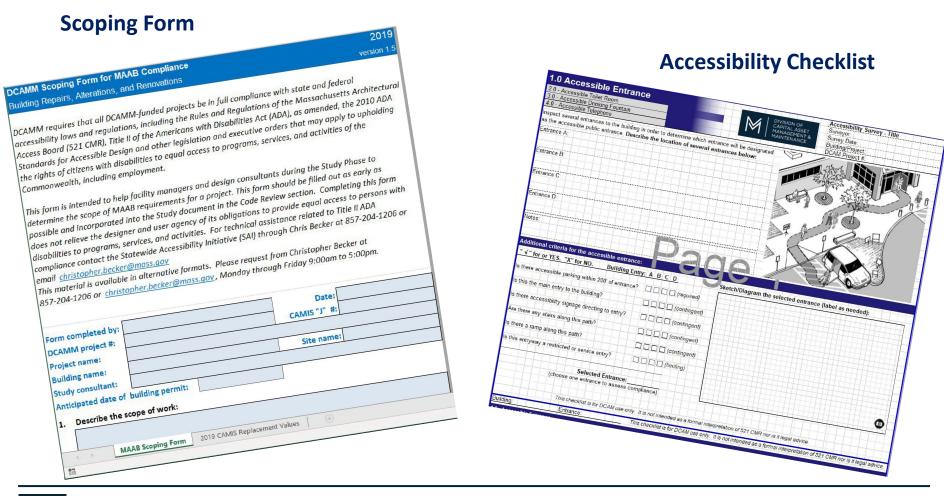


Request an Accessibility Consultant from DCAMM to conduct a full Access Audit

<sup>\*</sup>House Doctors are encouraged to contact the DCAMM Statewide Accessibility Initiative first to find out whether an Accessibility Audit is available before doing a field audit themselves. [https://www.mass.gov/dcamm-statewide-accessibility-initiative)



## **Accessibility Tools for Deferred Maintenance Studies**





#### 3 DOCUMENT in Study Template Section 3

- Accessibility Scope of Work Required by MAAB
- Use the outcome of the Scoping Form to select the applicable paragraph(s) in the Template.
- Use the completed Checklist to describe the required accessibility work in enough detail to be able to estimate its cost.
- If MAAB variances exist or whether a MAAB variance will be needed
- Review the <u>2010 ADA Standards</u> requirements differ for any element
- Identify whether there is additional accessibility work needed based on the ADA requirements for <u>Alterations to Primary Function Areas</u>



### **NEW AND UPDATED FORMS**

RESILIENCE CHECKLIST

2022 SCOPING FOR MAAB COMPILANCE

VERIFICATION DM PROJECT FORM

REQUEST FOR STUDY CERTIFICATION

APPROVED STUDY CERTIFICATION LETTER



## Resilience Checklist

#### III. Climate Resilience Design Standards Tool

RMAT Tool - Asset Risk Ratings

Instructions: Please use the RMAT Climate Resilience Design Standards Tool (see link below) and use the result to complete the following section and return the completed RMAT report with study

https://uatclimatechange.org/rmat\_home/designstandards

Extreme Precipitation - Urban Sea -Level Rise / Storm Surge: (select)

Extreme Precipitation - Riverine Flooding (select)

Extreme Heat (select)

DCAMM Climate-Resilience Checklist.xlsm



## Request for Study Certification

Form for Deferred Maintenance Projects with an Estimated Construction Cost of \$300,000 to \$5 Million (\$10 Million for UMass)

https://www.mass.gov/service-details/deferred-maintenance

#### REQUEST FOR STUDY CERTIFICATION

For Deferred Maintenance Projects with a Dollar Value of \$300,000 to \$5 Million (\$10 Million for UMass system)

Information provided in this transmittal must match information in the attached study.

Incomplete studies will be returned to the requesting agency for further development and resubmittal.

State Project Number: click or tap here to enter text.	Phase #: FT1 □ FT2 □ FT0 □		
Project Title: Click or tap here to enter text.			
Facility Name: Click or tap here to enter text.			
Facility Location: Click or tap here to enter text. CAMIS J Number: Click or tap to enter a date.			
Study Prepared by: Click or tap here to enter text.			
Estimated Construction Cost (ECC):Click or tap here to enter text. Date of Study: Click or tap to enter a date.			
Total Project Cost (TPC): click or tap here to enter text. Date of Revision, if any: click or tap to enter			

M.G.L. Ch. 29, S. 7K states no provider of design services for any building project for which a state agency is the using agency shall be selected, and no design services shall be performed, unless and until the study, program or where appropriate both have been satisfactorily completed and the following certifications have taken place.

#### State Operating Agency, Judiciary or County

The following individuals are designated by the agency to certify that the study, program, or where appropriate both, corresponds to the agency's current needs, including its current long-term capital facilities development plan:

Signature:	Date: Click or tap to enter a date.
Name: Click or tap here to enter text.	Title: Click or tap here to enter text.
Signature:	Date: Click or tap to enter a date.
Name: Click or tap here to enter text.	Title: Click or tap here to enter text.
Signature:	Date: Click or tap to enter a date.
Name: Click or tap here to enter text.	Title: Click or tap here to enter text.

#### Division of Capital Asset Management and Maintenance

I hereby certify that the study, program or where appropriate both, reflects the agency needs as stated; that they provide accurate estimates of the project requirements, cost and schedule; that the project can be accomplished within the appropriation, or authorization for that project; and that I recommend proceeding with design, construction, or where appropriate both.

	Date:
Hone Davis	

Deputy Commissioner, Office of Facilities Management and Maintenance, DCAMM

I hereby certify that the study, program or where appropriate both, are in conformity with the scope and purpose of the appropriation or authorization for the project, and legislative intent regarding the long-range capital facility plans for the using agency, and I approve proceeding with design, construction, or where appropriate, both.

	Date:
Carol W. Gladstone	
Commissioner, DCAMM	

Original signatures are required on the form submitted to DCAMM

Certification valid for two years from date of DCAMM Commissioner's signature

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#### **Approved Study Certification Letter**



#### The Commonwealth of Massachusetts Executive Office for Administration and Finance

Division of Capital Asset Management and Maintenance One Ashburton Place Boston, Massachusetts 02108

> MICHAEL J. HEFFERNAN SECRETARY ADMINISTRATION & PINANCE

CAROL W. GLADSTONE

Tel: (617) 727-4050 Fax: (617) 727-5363

CHARLES D. BAKER GOVERNOR

KARYN E. POLITO LIEUTENANT GOVERNOR

09.01.2021

Mr. Michael Heffernan, Secretary Administration and Finance State House - Room 373 Boston, MA 02133

RE: Certification of Study for Building Project
MA State Project No: DMH2251 FT1
Title: Dr. Harry Solomon Mental Health Center Replace Roof
Location: 391 Varnum Avenue Lowell, MA 01854

Dear Secretary Heffernan:

This letter serves as notification that certification for certain project(s) identified in the study of current and future deferred maintenance projects has been completed as summarized below.

M.G.L. Chapter 7C, Section 59 requires that a study or program (including schematic design) for a building project be prepared and that the below certifications are made in advance of contracting for or performing design or construction. As part of the required certifications, the Commissioner of the Division of Capital Asset Management and Maintenance must certify to the Secretary of Administration and Finance that the study and/or program, including schematic design, for a building project is in conformity with the scope and purpose of the appropriation or authorization for the project and legislative intent in regard to long range capital facility plans for the using agency, and approve proceeding with design, construction, or where appropriate both

In accordance with M.G.L. Chapter 7C, Section 59, the user agency responsible for the facility has certified in writing to DCAMM that the study or program, including schematic design, or, if appropriate, both, correspond to the current needs of that agency, including this agency's current long-term capital facilities development plan. See attached.

If there are questions on this matter, please call Hope Davis, Deputy Commissioner.

DIVISION OF CAPITAL ASSET MANAGEMENT AND MAINTENANCE STUDY CERTIFICATION For Deferred Maintenance Projects with an ECC of \$300,000 to \$5 Million (\$10 Million for UMass system)

#### SCOPE ITEMS Breakdown

CAMIS "J" Number	Scope Name	Description	Estimated Construction Cost (ECC)	Total Project Cost (TPC)	Fiscal Year Start (FYxxxx)	Certification Requested?
J235682-1	DMH Solomon Fuller Mental Health Center Roof Replacement	The DMH Facilities personnel has endorsed the use of a 30-year 90-mil adhered EPDM membrane for the flat roofs as a replacement for the flat roofs as a replacement for the current roof. The current roof is beyond its useful life but, given the amount of snow received in a typical winter and the periodic need for maintenance staff to be on the roof to clear drains, service equipment or remove snow The EPDM helps accelerate snow melt and is much less expensive than all of the other options reviewed, and	953809	1057515	FY2022	Yes, Certified

#### **Division of Capital Asset Management and Maintenance**

I hereby certify that the study, program or where appropriate both, reflects the agency needs as stated; that they provide accurate estimates of the project requirements, cost and schedule; that the project can be accomplished within the appropriation, or authorization for that project; and that I recommend proceeding with design, construction, or, where appropriate, both.

Hope Davis Date: 09.01.2021

Deputy Commissioner, Office of Facilities Management and Maintenance, DCAMM

I hereby certify that the study (including schematic design), program or, where appropriate, both, are in conformity with the scope and purpose of the appropriation or authorization for the project, and legislative intent regarding the long-range capital facility plans for the using agency, I approve proceeding with regard to long-range capital facility plans for the using agency, and I approve proceeding with design, construction, or, where appropriate, both.

Francis T. Tagan on behalf of Commissioner

Date: 09.01.2021

Commissioner, DCAMM

Enclosure: User agency certification

Final Document issued via E-Builder with study submission

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## Verification Of Deferred Maintenance Project

Form for projects that do not require Certification by DCAMM but must be entered into CAMIS

https://www.mass.gov/service-details/deferred-maintenance

#### VERIFICATION OF DEFERRED MAINTENANCE PROJECT For Non-certifiable Projects

The following Deferred Maintenance projects are not required to be certified before the agency can contract for final design and construction services; however, agencies are encouraged to verify them with DCAMM:

- Public building construction projects (a.k.a. vertical construction, Chapter <u>149/149A</u> projects) with an Estimated Construction Cost less than \$300,000. OR
- Public works projects (a.k.a. horizontal construction, Chapter 30 projects, "non-building" construction), such as parking lot/roadway paving, underground utilities, etc., of any dollar value.

This Fact Sheet should be entered into CAMIS to identify the proposed Deferred Maintenance project:

Requesting Agency: Click or tap here to enter text.

Project Title: Click or tap here to enter text.

Facility Name: Click or tap here to enter text.

Facility Location: Click or tap here to enter text.

CAMIS Site Code and/or Building Number: Click or tap here to enter text.

Agency Point of Contact: Click or tap here to enter text.

Phone Number: Click or tap here to enter text. E-mail Address: Click or tap here to enter text.

Date submitted: Click or tap here to enter text.

Provide a brief answer to each of the following questions:

- 1. What are the conditions that have prompted the development of this project?
- 2. How was the scope of this project determined?
- 3. What is the proposed solution/action?
- 4. Does the scope of this project provide a complete solution? Yes □ No □ Deferred Maintenance projects valued at less than \$300,000 must not be dependent on future Deferred Maintenance funds for completion.
- 5. DCAMM's <u>Scoping Form for MAAB Compliance</u> has been completed and is attached to this document. If the project triggers accessibility compliance of a building and/or site, does the project scope and budget include accessibility compliance?
- What is the Estimated Construction Cost (ECC)? Attach quotes, if available.

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#### **Deferred Maintenance Liaisons**

**Scott Calisti** – DHE Liaison

scott.calisti@mass.gov

Michael Arcadipane – Community Colleges Liaison

michael.Arcadipane@mass.gov

Michele Davis – EOPSS, Sheriff's Office Liaison

michele.davis@mass.gov

**Tan Nguyen** – EOHHS, EOEEA, EOLWD, MA SEC, UMass Campuses Liaison tan.nguyen@mass.gov

**Azinga Ming** – Trial Courts, State Universities Liaison <u>azinga.ming@mass.gov</u>

**Tom Tagan** - Director of Facility Resources <a href="mailto:francis.tagan@mass.gov">francis.tagan@mass.gov</a>



#### **Contacts**

Christopher Becker - Statewide Accessibility Initiative christopher.becker@mass.gov;

**Robbie Brown** - CAMIS System Analyst / Coordinator robbie.w.brown@mass.gov;

**Scott Calisti** – Study Certification Coordinator <a href="mass.gov"><u>scott.calisti@mass.gov</u></a>

Michele Davis – Study Certification Coordinator michele.davis@mass.gov;

DSB Liaison/House Doctor Coordinator - Contact your Liaison for further information



## DCAMM Website Page and Study Documents

## **Study Instructions link**

**Deferred Maintenance - New Study Instructions** 

### **Study Template Link**

Deferred Maintenance - New Study Template

**Request for Certification Document Link** 

<u>Deferred Maintenance - New Request for Study</u>
Certification



# PLEASE CONTACT YOUR LIAISON WITH ANY QUESTIONS



