

VOLUME I
Chapter 1

ASBESTOS SURVEY EXECUTIVE SUMMARY REPORT

Prepared for:

U.S. Army Soldier Systems Center
Natick, MA



U.S. Army Corps of Engineers
New England District
696 Virginia Road
Concord, Massachusetts 01742

Project No. 7056002

March 23, 2012

Prepared by:



Mabbett & Associates, Inc.
Environmental Consultants & Engineers

5 Alfred Circle
Bedford, MA 01730-2318
Telephone: (781) 275-6050
Toll Free: (800) 877-6050
Facsimile: (781) 275-5651

info@mabbett.com
www.mabbett.com

© 2012, Mabbett & Associates, Inc.

ACKNOWLEDGMENT

This Asbestos Containing Materials (ACM) Survey Executive Summary was prepared for the Department of the Army New England District Corps of Engineers and the U.S. Army Soldier Systems Center, Natick, Massachusetts, in accordance with an established scope of work as defined in Contract Number W912WJ-11-D-0003, Delivery Order Number 0003. The information presented herein is based on the facts and information conveyed to or received by Mabbett & Associates, Inc. (Mabbett) during the preparation of this report. If any of the information provided to Mabbett that was used in preparing this report is incorrect, incomplete, or subject to change, Mabbett would wish to alter its opinion(s) accordingly. In addition, the professional opinions and information contained in this report are based solely on the requirements of the applicable regulations and technical data as known to Mabbett as of the date of this report and considered applicable to this report.

This report was prepared by the following Mabbett & Associates, Inc. personnel:

MABBETT & ASSOCIATES, INC.

BY:



Michael F. Delaney
Project Manager
Massachusetts Inspector/ Management Planner MP116944
Massachusetts Project Designer PD041144

This report has been reviewed and approved by:



Robert K. McKinley, MPH, CIH, LIH
Director of Industrial Hygiene Services

TABLE OF CONTENTS

Volume I - General

Chapter 1 - Introduction and Executive Summary

Chapter 2 - Asbestos Management Plan (AMP)

Volume II – Individual Natick Center Building Reports

Individual Building Report Chapters including:

- Cover page with building number
- Building narrative summary
- Relevant asbestos findings for the building
- Abatement cost estimate
- Floor plans (historic and current)
- Relevant photos

Volume III – Individual Housing Unit Reports

Individual Housing Unit Report Chapters including:

- Cover page with unit number
- Building narrative summary
- Relevant asbestos findings for the unit
- Abatement cost estimate
- Floor plans
- Relevant photos

Volume IV – Appendices and Supporting Data

Appendix A - Asbestos Laboratory Analysis Reports and Laboratory Certifications

Appendix B - Inspector Field Data Sheets

Appendix C - Personnel Certifications & Licenses

TABLE OF CONTENTS
VOLUME I – CHAPTER 1

Description	Page
INTRODUCTION & EXECUTIVE SUMMARY	1
Executive Summary	1
Scope.....	1
Previous Report Summary	2
Asbestos Survey Summary.....	3
Abatement Cost Summary.....	7

LIST OF TABLES

Table 1	List of Surveyed Buildings
Table 2	Previous Report Summaries
Table 3A	Buildings Surveyed Where ACM was Not Identified
Table 3B	Housing Units where ACM was Not Identified
Table 4A	Buildings Surveyed Where ACM was Identified
Table 4B	Housing Units where ACM was Identified
Table 5	Summary of Damaged ACM
Table 6	Summary of ACM Abatement Costs, Including Housing Units

VOLUME I
CHAPTER 1
INTRODUCTION & EXECUTIVE SUMMARY

INTRODUCTION & EXECUTIVE SUMMARY

Executive Summary

Mabbett and Associates, Inc. (Mabbett) performed an asbestos containing materials (ACM) survey of the U.S. Army Soldier Systems Center (Center) in Natick, Massachusetts and associated housing units located in Natick, Hudson, Needham, and Wayland, MA in accordance with an established scope of work as defined in Contract Number W912WJ-11-D-0003. Site survey work was performed during November 2011 through January 2012 by appropriately credentialed personnel. During the course of the survey phase, 3,865 of the 4,466 bulk samples collected were analyzed for asbestos content. Materials consisting of multiple layers were analyzed separately.

This report, along with the individual Building Reports, Housing Unit Reports and Supporting Data is the product of the Mabbett Team's effort. The report consists of four volumes: Volume I – General, which is the Introduction, Executive Summary and the Asbestos Management Plan (AMP). Volume II - Individual Building Reports and Volume III - Individual Housing Unit Reports, which contain survey findings for the specific surveyed building, floor plans indicating sample and ACM locations and relevant photos. Volume IV – Appendices/Supporting Data, includes laboratory results and field data sheets.

Scope

The scope of the project was to review two prior Asbestos Survey Reports (Biospherics Incorporated, 1988 and ATC Environmental, Inc., 1995) update and modernize the historic asbestos survey plans by recording the abated ACM, identify the remaining ACM, and provide an updated survey with abatement cost estimates and current CADD drawings. Following the review and documentation of the previous surveys, Mabbett performed a physical U.S. Environmental Protection Agency (EPA) Asbestos Hazard and Emergency Response Act (AHERA) type inspection and sampling of suspect materials as required by Army Regulation (AR) 420-7 (3-7)(a) to identify and quantify remaining ACM in accessible areas. The following buildings listed in the table below were included in this scope of work for ACM surveys:

Table 1 - List of Surveyed Buildings	
U.S. Army Soldier Systems Center, Natick, MA	
Building No. / Address	Function Title
1	Headquarters
2	Climatic Chambers
3	Research
4	Development
5	Technology Engineering
7	Special Test Lab
8	Communications Center
14	Station Garage
15	Barracks
16	Food Service Equipment Lab
19	Boiler Plant
20	Supply
30	Health Clinic

Table 1 - List of Surveyed Buildings	
U.S. Army Soldier Systems Center, Natick, MA	
Building No. / Address	Function Title
32	Recreation
36	Food Engineering Lab / Processing Plant
38	Headquarters Company HQ
42	Environmental Med.
44	Instrumentation
45	Laboratory Support
62	Chemical Storage
63	Pump House
66	Roller Test Facility
67	Air Conditioning Plant
68	Chemical Storage
73	Insecticide Storage
77	Combustion Test Facility
78	Directors NSC
80	Conference/Training
2 and 6 Kansas Street, Natick, MA	Residences
1-3, 5, 7-25 Heritage Lane, Natick, MA	Residences
1A,1B,2,3A,3B,5A,5B,6A,6B,7 A,7B,11A,11B,13A,13B,15A,1 5B,16A,16B,17A,17B,19,20A, 20B,21A AND 21B Bruen Road, Hudson, MA	Residences
1-5 and 7 Launcher Way, Wayland, MA	Residences
88,90,92,11,102 and 104 Oxbow Road, Wayland, MA	Residences
1-12 East Militia Heights, Needham, MA	Residences

Previous Report Summary

Mabbett reviewed and documented the following previous surveys:

Table 2 - Previous Report Summary		
U.S. Army Soldier Systems Center, Natick, MA		
Date	Firm	Title
1995	ATC Environmental, Inc.	Asbestos Survey Report
1988	Biospherics Incorporated	Asbestos Survey Report

Asbestos Survey Summary

To determine the locations of suspect building materials, a visual inspection was conducted by Massachusetts Licensed Asbestos Inspectors in buildings listed in Table 1.

Only areas that were accessible during the field work phase were sampled. Areas which were inaccessible were identified in the individual building reports. Suspect ACM material that may be present within the walls, above inaccessible hard ceilings, or in other inaccessible locations, that was not sampled should be assumed to contain asbestos if discovered during any renovation process or until otherwise verified. To avoid impacting any existing roof warranties, no destructive sampling of roofing materials was included in this survey, and suspect roofing material should be assumed to be ACM until sample results prove otherwise.

Sampling and inspections were performed in general accordance with AHERA protocols. The Polarized Light Microscopy (PLM) analytical protocol requires each layer of the sample to be analyzed separately. The quantity of analyses will vary based on the number of layers in a sample and whether a "positive stop" is employed. A positive stop is used when one sample of a homogeneous area is positive, the remainder of the samples were not be analyzed because the entire homogeneous area is considered positive as indicated on the results tables and drawings.

The collected bulk samples were submitted under chain of custody procedures to ProScience Analytical Services, Inc. (ProScience) of Woburn, MA for polarized light microscopy (PLM) analysis of bulk materials using EPA Method 600/R-93/116. ProScience is accredited by the American Industrial Hygiene Association (AIHA) and the Massachusetts Department of Labor Standards and participates in the National Voluntary Laboratory Accreditation Program (NVLAP Lab Code 200090-0). Copies of the laboratory accreditations are included in Volume IV of the Comprehensive Asbestos Survey Report.

Based on the results of the surveys of accessible locations and analytical results for samples collected, the following buildings had no ACM identified. Refer to the individual building reports for specific sample locations, building drawings, and results:

Table 3A- Buildings Surveyed Where Asbestos was Not Identified	
Building 8	Building 66*
Building 15	Building 67
Building 20	Building 68
Building 38	Building 73
Building 44	Building 77*
Building 62	Building 78
Building 63	Building 80
*Building was surveyed, no suspect materials identified.	

Table 3B - Housing Units Surveyed Where Asbestos was Not Identified

1A, 1B, 2, 3A, 3B, 5A, 5B, 6A, 6B, 7A, 7B, 11A, 11B, 13A, 13B, 15A, 15B, 16A, 16B, 17A, 17B, 19, 20A, 20B, 21A AND 21B Bruen Road, Hudson, MA

Based on the analytical results provided by the laboratory the following buildings had ACM identified during the survey. Refer to the individual building reports for specific sample locations, building drawings, and results:

Table 4A- Buildings Surveyed Where ACM was Identified

Building 1	Building 16
Building 2	Building 19
Building 3	Building 30
Building 4	Building 32
Building 5	Building 36
Building 7	Building 42
Building 14	Building 45

Table 4B- Housing Units Surveyed Where ACM was Identified

2 and 6 Kansas Street, Natick, MA
1-3, 5, 7-25 Heritage Lane, Natick, MA
1-5 and 7 Launcher Way, Wayland, MA
88,90,92,11,102 and 104 Oxbow Road, Wayland, MA
1-12 East Militia Heights, Needham, MA

The Asbestos Management Plan (AMP) prepared by a Massachusetts Licensed Asbestos Management Planner found in Volume I - Chapter 2 of the Project Report satisfies the Occupational Safety and Health Administration (OSHA), AR420-70, and AR400-1 compliance requirements for employee safety and for management of asbestos identified at the facility. This AMP contains the asbestos survey results, background information on asbestos, an introduction to the Operations and Maintenance (O&M) program, information on implementing the O&M program, O&M work practices, O&M incident and emergency work practices and O&M surveillance and documentation practices. It is Mabbett's understanding that asbestos removal and replacement procedures will be performed by asbestos abatement contractors rather than training in-house personnel to perform these tasks. The AMP reflects this understanding.

During preparation for renovation activities, the Center should review the AMP and specific building reports to determine if asbestos-containing materials will be disturbed by the proposed renovations. The Center should also assume materials not previously sampled due to accessibility, etc. which will be impacted by renovation activities to be asbestos-containing

materials unless otherwise determined. If asbestos containing materials must be disturbed as a part of the renovations, ACMs must be removed by a Massachusetts Licensed Asbestos Abatement Contractor and proper notification to the Massachusetts Department of Environmental protection (MassDEP) and Division of Occupation Safety (DOS) be made as required. In the event of the disturbance of an asbestos containing material, the facility Asbestos Management Control Officer (AMCO) shall decide if the disturbance is considered an incident or an emergency and shall follow the guidelines of the attached Asbestos Management Plan, listed in Chapter 2, Section 8.0.

Continuous monitoring shall be performed by the facility Asbestos Management Control Officer or qualified representative during renovation activities and on a semi-annual basis as described in Section 9.0 of the attached Asbestos Management Plan. At a minimum, the continuous monitoring shall include a visual inspection and documentation of the asbestos containing materials to assess if the materials have become friable and/or damaged. Additionally, prior to commencing renovations, all contractors involved with the renovations should be made aware of the location and quantity of ACMs within the building in which they will be working.

If any asbestos containing material is damaged or becomes damaged it should be repaired, if possible, or removed entirely. Materials classified with a high potential for disturbance as identified in the tables should be removed or repaired immediately upon discovering damage to the material especially when located in occupied areas.

Based on the visual observations of this survey, the items listed in Table 5 below were identified as being damaged at the time of the survey:

Table 5 - Summary of Damaged ACM U.S. Army Soldier Systems Center, Natick, MA							
Bldg No.	Sample No.	ACM Location	Description of Material	Percent and Type of Asbestos	Estimated Quantity		Condition
					Amount	Units	
1	16A	Basement Corridor, 027, 036	Air Cell Pipe Insulation	30% Chrysotile	780	LF	Minor Damage
1	17A	Basement Corridor, 030, 032,	Pipe Fitting Insulation	20% Chrysotile 10% Amosite	46	EA	Minor Damage
1	16A/17A	030	Air Cell Pipe Insulation	30% Chrysotile; 20% Chrysotile 10% Amosite	30	LF	Minor Damage
2	42A	121	Duct Vibration Cloth	40% Chrysotile	24	SF	Damaged
3	22A	018A, 3rd Floor East Corridor Pipe Chases, 3rd Floor West Corridor Pipe Chases	Pipe Insulation	15% Chrysotile	240	LF	Damaged
3	25A	1st Floor East Corridor Pipe Chases, 3rd Floor East Corridor Pipe Chases; 306	Hard Pack Fitting	60% Chrysotile	9	EA	Damaged