8225

Final

Environmental Baseline Survey for Proposed Lease and/or Transfer Fort Devens - Basewide

Volume II of II

U.S. Army Environmental Center

Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts

DISTRIBUTION STATEMENT A
Approved for Public Release
Distribution Unlimited

Prepared for:

U.S. ARMY ENVIRONMENTAL CENTER
ABERDEEN PROVING GROUND, MARYLAND 21010

Prepared by:

ARTHUR D. LITTLE, INC.
25 Acorn Park
Cambridge, Massachusetts 02140-2390

~~Requests for this document must be referred to:~~
~~Commander, U.S. Army Environmental Center~~
~~Aberdeen Proving Ground, Maryland 21010~~

March 1996

AEC Form 45, 1 Feb 93 replaces THAMA Form 45 which is obsolete.

Environmental Baseline Survey

Proposed Lease Parcel
Building P-5
Fort Devens, Massachusetts

November 1995

Environmental Baseline Survey
Proposed Lease Parcel, Building P-5
Fort Devens, Massachusetts

Executive Summary

An Environmental Baseline Survey (EBS) was undertaken to make a determination of the suitability to lease Building P-5 at Fort Devens, Massachusetts. The proposed lease is for the period of one year to the Massachusetts Government Land Bank. Building P-5 consists of two floors (approximately 9,217 square feet of space). The first floor will be occupied by the by the Massachusetts Government Landbank and used for administrative purposes. The second floor will be subleased to a Native American organization to function as the United Native American Cultural Center.

The EBS followed the protocols outlined in current Department of Defense (DoD) Guidance. This included records review, review of aerial photographs, and a physical inspection of the proposed lease parcel and adjacent areas. Sampling was conducted for asbestos containing materials only in the proposed lease parcel. Other environmental sampling was not deemed necessary for this parcel. This EBS is a supplement to the Final Community Environmental Response Facilitation Act (CERFA) Report for the Fort Devens Facility, Fort Devens, Massachusetts, April 1994.

The only known environmental conditions of potential concern identified on the proposed lease parcel were asbestos containing materials (ACM) and lead-based paint (LBP). The following materials located in Building P-5 were assumed to contain asbestos: fire doors, floor tiles, and associated mastic. Other suspect ACM that were sampled in Building P-5 did not contain asbestos. Possible exposure to proposed lease parcel workers was determined to be minimal due to the location and condition of assumed ACM. No data on LBP exists for Building P-5, but due to the age of the building, there is a possibility of LBP. Possible threat to the proposed lease parcel workers was minimal due to the good condition of the paint. Although the paint was noted to be in good condition, there is a potential for children and adolescents who visit the Cultural Center to be exposed to LBP. Petroleum products were determined to be stored on, but not released on the proposed lease parcel.

The proposed lease parcel for Building P-5 is within a parcel identified as being disqualified as a potential clean parcel in the CERFA, April 1994. Disqualification of the 4 acre CERFA parcel (Parcel number 151) containing the proposed lease parcel was for petroleum storage and possible release. There is one 2,000 gallon fuel oil UST located at Building P-5. There have been no documented releases at this UST. The U.S. Army Center for Health Promotion and Preventative Medicine (USACHPPM) conducted a radiological survey of Building P-5 during the Spring of 1995. The survey concluded that the building did not contain radiological contamination levels above normal radiation background levels and therefore met the requirements for release for unrestricted use.

Based upon the above factors, the proposed lease parcel is recommended for classification as suitable for lease. It is further recommended that, in accordance with DoD guidance, a hazardous substance notice is needed because hazardous substances or petroleum products were stored for one year or more, or known to have been released, treated or disposed on the proposed lease parcel. The hazardous notice should be given due to the fuel oil UST located outside Building P-5. A notice should also be given for the potential presence of asbestos and LBP within the lease parcel. Storage or releases on adjacent property are unlikely to impact the lease parcel.

1.0 Introduction

This Environmental Baseline Survey (EBS) is being undertaken in accordance with current Department of Defense (DoD) guidance in order to make a determination of the suitability to lease Building P-5 at Fort Devens, Massachusetts. This EBS is a supplement to the Final Community Environmental Response Facilitation Act (CERFA) Report for the Fort Devens Facility, Fort Devens, Massachusetts, April 1994. The CERFA Report was prepared in accordance with the DoD policy on the environmental review process to reach a Finding of Suitability to Lease (FOSL).

The proposed lease consists of approximately 9,217 square feet of space and will function as the Landbank Commerce Center and United Native American Cultural Center.

2.0 Site Description

2.1 Proposed Lease Parcel

The proposed lease parcel consists of approximately 9,217 square feet of space (Building P-5). Building P-5 was built in 1930 for use as a stable, and later converted to a museum and administrative offices. The building is of permanent brick construction and is U.S. Government property under the jurisdiction of the Installation Commander, Fort Devens, Massachusetts. Building P-5 is within a parcel identified as being disqualified from being a clean parcel in the CERFA Report, April 1994 (Parcel 151). CERFA parcel number 151 was disqualified for reasons referenced in the CERFA Report (Table 5.1-1: Parcel Descriptions, Fort Devens Facility). In general, this 4 acre CERFA parcel was disqualified because petroleum may have been stored and/or released on the parcel.

2.2 Surrounding Property

The surrounding areas to CERFA parcel number 151 are shown in Figure 5.1-1 in the CERFA Report, April 1994.

3.0 Survey Methodology

This EBS is a supplement to the Final CERFA Report for the Fort Devens Facility, Fort Devens, Massachusetts, April 1994. This EBS was conducted in accordance with DoD guidance.

3.1 Records Search - Lease Parcel

A detailed records review was conducted as part of the CERFA Report (refer to Section 2.0 - Scope of Investigation).

3.2 Records Search - Adjacent Facilities

A detailed records review was conducted as part of the CERFA Report (refer to Section 2.0 - Scope of Investigation).

3.3 Aerial Photograph Review

An aerial photograph review was conducted as part of the Installation Assessment for Fort Devens by the Environmental Monitoring Systems Laboratory for USAEC during September 1991. This aerial photograph assessment was reviewed as part of the records review in the CERFA Report (refer to Section 2.0 - Scope of Investigation).

3.4 Interviews

Interviews were conducted as part of the records review in the CERFA Report (refer to Section 2.0 - Scope of Investigation).

3.5 Visual Inspections

Visual inspections of the proposed lease parcel were conducted during the CERFA report preparation and in July 1994 by representatives of the Fort Devens BRAC Environmental Coordinator's office and the United States Army Environmental Center (USAEC).

3.6 Identification of Sources of Contamination on Adjacent Property

Potential sources of contamination on adjacent property and their potential impacts were identified during the various studies and in the CERFA Report.

3.7 Ongoing Response Actions

There are no ongoing response actions taking place in the lease parcel. There are no ongoing response actions taking place in the adjacent parcels.

3.8 Physical Inspections - Adjacent Areas

Physical inspections of the area adjacent to the proposed lease parcel were conducted in July 1994 by representatives of the Fort Devens BRAC Environmental Coordinator's office and the United States Army Environmental Center (USAEC).

3.9 Sampling

Asbestos and radon samples were collected in building P-5 to determine the presence of Asbestos Containing Materials (ACM) and radon. The building was also surveyed for radiological contamination. The survey concluded that the building did not contain radiological contamination levels above normal radiation background levels and therefore met the requirements for release for unrestricted use.

4.0 Relevant Information Gained During Records Search

A detailed records review was conducted as part of the CERFA Report (refer to Section 2.0 - Scope of Investigation).

5.0 Title Search

A title search was conducted as part of the CERFA Report (refer to Section 2.5 - Title Documents).

6.0 Description of Activities

6.1 Proposed Lease Parcel

Building P-5 was built in 1930 for use as a stable. It was later converted to a museum and administrative offices. The building currently remains vacant.

6.2 Adjacent Areas

The adjacent areas to CERFA parcel number 151 are shown in Figure 5.1-1 in the CERFA Report, April 1994.

7.0 Hazardous Substances and Petroleum Products Management Practices and Potential Impacts

7.1 Proposed Lease Parcel

There is one 2,000 gallon fuel oil UST located at Building P-5. There have been no documented releases at this UST.

7.2 Asbestos Containing Material (ACM)

The following materials located in Building P-5 were assumed to contain asbestos: fire doors, and various floor tiles and associated mastic. The suspect ACM that were sampled in Building P-5 after analysis were found not to contain asbestos. Possible exposure to proposed lease parcel workers was determined to be minimal due to location and condition of assumed ACM.

7.3 Lead-Based Paint

No data on LBP exists for Building P-5, but due to the age of the building, there is a possibility of the presence of LBP. Although the paint was noted to be in good condition, there is a potential threat of LBP exposure to children and adolescents who visit the United Native American Cultural Center.

7.4 Radon

Detected levels of radon were below 4.0 picoCuries per Liter (pCi/L) in Building P-5, which is below the EPA and Army Regulation 200-1 action level of 10 pCi/L. Consequently, there is no adverse impact from radon anticipated within the proposed lease parcel.

7.5 Adjacent Areas

Building P-4 is located 500 feet from Building P-5. Building P-4 has a 2,000 gallon fuel oil UST and a 275 gallon oil above-ground storage tank (AST). Both of these tanks have not had any documented releases. This site would not affect the proposed lease parcel.

8.0 Relevant Information From Records Review, Interviews, and Aerial Photograph Review

A detailed records review was conducted as part of the CERFA Report (refer to Section 2.0 - Scope of Investigation). No new areas of concern were identified either within the proposed lease parcel or in adjacent areas as a result of the aerial photograph review.

9.0 Ongoing Response Actions

There are no ongoing or completed response actions within or adjacent to the proposed lease parcel.

10.0 Recommendation as to Suitability to Lease

After inspection of the proposed lease parcel and adjacent areas and review of the documentation of adjacent areas, as well as review of the anticipated activities within the proposed lease parcel, it is recommended that the parcels be found suitable to lease to the Massachusetts Government Landbank for the proposed activities. The adjacent areas are not expected to have any impact on the proposed lease parcel. The only potential environmental concerns within the proposed lease parcel are possible ACM in certain building materials, and potential LBP on walls and structures within the building. The possible ACM is in good condition and the Massachusetts Government Landbank's activities are not anticipated to affect the ACM material.

Hazards from LBP are minimal due to the good condition of the painted surfaces within the Building P-5. Due to the possibility for children and adolescents to visit the United Native American Cultural Center, a hazardous substance notice should be given for the potential exposure to asbestos and LBP within the lease parcel.

It is also recommended that, in accordance with DoD guidance, a hazardous substance notice is needed because hazardous substances or petroleum products were stored for one year or more, or known to have been released, treated or disposed on the proposed lease parcel. The hazardous notice should be given due to the fuel oil UST located outside Building P-5. Storage or releases on adjacent property are unlikely to impact upon the lease parcel.

11.0 References

USAEC, April 1994, *Final Community Environmental Response Facilitation Act (CERFA), Fort Devens Facility, Fort Devens, Massachusetts*, prepared by Arthur D. Little, Inc., Cambridge, MA, submitted to the U.S. Army Environmental Center, Aberdeen Proving Ground, MD.

US Army Environmental Center. 1995. *Final Asbestos [AREE 65], Report, Fort Devens, Massachusetts,* prepared by Arthur D. Little, Inc., Cambridge, MA, submitted to U.S. Army Environmental Center, Aberdeen Proving Ground, MD. May.

U.S. Army Environmental Center. 1993. *Final Radon Survey Report (AREE 67) Report, Base Realignment and Closure Environmental Evaluation (BRAC EE), Fort Devens, Massachusetts*, prepared by Arthur D. Little, Inc., Cambridge, MA, submitted to the U.S. Army Environmental Center, Aberdeen Proving Ground, MD. November.

Finding of Suitability to Lease (FOSL)

Fort Devens
(Building P-5)

Fort Devens, Massachusetts

November 1995

1.0 Purpose and Finding

a. The purpose of this FOSL is to document a decision made pursuant to Department of Defense (DoD) FOSL Guidance that property is suitable to lease.

b. Based on results detailed in the Environmental Baseline Survey (EBS), I have determined that Building P-5 is suitable for lease for a period of one year to be used by the Massachusetts Government Land Bank, identified as the Devens Marketing Center, for administrative purposes and by a Native American organization for use as the United Native American Cultural Center.

2.0 Property Description

The lease parcel, Building P-5, consists of approximately 9,217 square feet. Building P-5 was constructed in 1930 for use as a stable and later converted to a museum and administrative offices. The building is of permanent brick construction and is United States Government property under the jurisdiction of the Installation Commander, Fort Devens, Massachusetts.

The lease parcel is located on Antietam Street. Directly north of the parcel is open grass fields and further north is Verbeck Gate. To the east is a parking lot and additional grass fields. The parking lot is not included in the lease. Antietam Street is south of the parcel and Building P-4 is southwest of the parcel. West of the parcel are grass fields and Sherman Avenue.

3.0 Environmental Condition of Property

An analysis of the environmental condition of the site proposed for lease has been made by the United States Army Environmental Center (USAEC) in the form of an EBS for Building P-5. The EBS was conducted in accordance with the requirements of the DoD FOSL guidance for conducting an EBS.

Finding of Suitability to Lease (FOSL)

Fort Devens
(Building P-5)

The only known environmental conditions of potential concern identified on the proposed lease parcel were asbestos-containing materials (ACM) and lead-based paint (LBP). The following materials located within Building P-5 were assumed to contain asbestos: fire doors, and floor tiles and associated mastic. Other suspect ACM were analyzed and found not to contain asbestos. Possible exposure to proposed lease parcel workers was determined to be minimal due to the location and condition of assumed ACM. No data on LBP exists for Building P-5, but due to the age of the building, there is a possibility of LBP. The paint is in good condition; there is a minimal potential for children and adolescents who visit the Cultural Center to be exposed to LBP. Petroleum products were determined to be stored, but not released, on the proposed lease parcel. A 2,000 gallon No. 2 underground fuel oil storage tank (UST) exists outside Building P-5 and there have been no documented releases at this UST. The building was tested for radon. Detected levels were below 4.0 picoCuries per liter; consequently, no adverse impacts are anticipated. The building was also surveyed to determine whether radiological contamination was present. The survey indicated there were no radiological contamination levels above the normal background levels and, therefore, the building met the requirements for release for unrestricted use.

Based upon the EBS and the references cited therein, the proposed lease parcel is suitable for lease for its intended purpose because although the property contains hazardous substances or petroleum products, it can nevertheless be used pursuant to the proposed lease. A hazardous substance notice will be given for the 2,000 gallon underground No. 2 fuel oil storage tank, and for the potential presence of asbestos and LBP within the proposed lease parcel.

There have been no reported historical releases on adjacent properties and storage or release on adjacent properties would be unlikely to impact the lease parcel and, therefore these properties pose no unacceptable risk to human health or the environment. Adjacent properties include the parking lot just east of the proposed lease parcel.

3.1 Regulatory Comment

Regulatory agencies were notified at the initiation of the EBS and FOSL. Regulatory comments received during the development of these documents were reviewed and incorporated, as appropriate.

3.2 Lease Provisions

a. Hazardous substance or petroleum product notices, as provided in Section 3.0, will be given.

b. Provisions will be included in the lease to ensure that the requirements of Section IV (E) and (G) of the DoD FOSL policy are met.

c. The model lease provisions attached to the DoD FOSL policy will be included in the lease.

d. A notice will also be given for the potential presence of asbestos and lead-based paint within the proposed lease parcel. This notice will include a statement about the responsibilities of the lessee if the intended use of the lease parcel changes to a residential property, school, or daycare center.

e. The Army shall have access to the property in any case in which a response action or corrective action is found to be necessary after date of the property lease, or such access is necessary to carry out a response action or corrective action on adjacent property.

f. When the property is transferred, it will be transferred in accordance with Section 37 of the Fort Devens Federal Facility Agreement.

4.0 Conclusion

Based on the above information, I conclude that the DoD requirements to reach a Finding of Suitability to Lease (FOSL) have been met and therefore, this parcel, Building P-5, can be used pursuant to the proposed lease. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 120 (h) (1) notice requirements and the lease restriction discussed above must be placed in the lease.

ARTHUR T. DEAN
Major General, USA
Deputy Chief of Staff for
Personnel and Installation
Management

Comment and Response Package

USEPA New England Division Comments on the Draft Environmental Baseline Survey, Building P-5

Submitted to Fort Devens Base Realignment and Closure Division, Environmental Management Office

Prepared for:

U.S. ARMY ENVIRONMENTAL CENTER
ABERDEEN PROVING GROUND, MARYLAND 21010

Requests for this document must be referred to:
Commander, U.S. Army Environmental Center
Aberdeen Proving Ground, Maryland 21010

NOVEMBER 1995

Response to USEPA New England Division Comments
Draft Environmental Baseline Survey, Building P-5

General Comment

It is recommended that the Army attach the 9 September 1993 DoD Guidance concerning EBSs and FOSLs to the EBS in an Appendix.

Response

Comment may be taken into consideration for future EBSs and FOSLs.

Specific Comments

Comment

1. **Page 1, Introduction:** A sentence should be added describing what the use of the space for a "cultural center" consists of. Will it be a museum, etc.? Also, please include a current building plan.

Response

1. The entire building is being leased to the Massachusetts Government Land Bank (MGLB). The first floor of Building P-5 will be identified as the Devens Marketing Center and will be used for administrative purposes. The second floor will be subleased to a Native American organization and will function as the United Native American Cultural Center (UNACC). This has been noted in the EBS and FOSL. The Army has not been provided with specific plans for use of the UNACC; accordingly, notice of use restrictions will be included in the lease.

Comment

2. **Page 3, Section 7, Paragraph a.:** There is the mention of a 2,000-gallon fuel oil UST associated with P-5. Who will have the responsibility for overseeing the regulatory compliance and release cleanup programs?

Response

2. The MGLB is responsible for overseeing new regulatory compliance and release cleanup programs for the existing 2,000-gallon No.2 fuel oil storage tank. Because there were no documented releases, the Army is not currently involved in a cleanup program; thus, the Army's responsibility for this tank will end with the execution of this lease.

Comment

3. **Page 3, Section 7, Paragraph b.:** With regard to ACM, is the required plan in place to monitor and maintain the condition of the identified ACM? Whose responsibility will it be to implement this plan in the leased parcel? This should be set forth in the lease use restrictions and referenced in paragraph seven of the FOSL.

Response

3. The lessee will be responsible for monitoring and maintaining the condition of identified ACM.

Comment

4. **Page 3, Section 7, Paragraph c.: a.** The EBS states that no data exist on lead-based paint, yet it also mentions that the paint is in good condition. How was this conclusion reached? **b.** There should be an explanation of why there will be a lack of children and adolescents in the building, especially if it is to be used as a cultural center. Will this be a use limitation in the lease? **c.** If children will not be restricted from using the leased premises, will there be a plan to monitor and maintain the condition of the paint? This should be set forth in the lease use restrictions and described in new paragraph seven of the FOSL.

Response

4. The visual inspection discussed in Section 3.5 of the EBS revealed the condition of the paint. The EBS and FOSL have been updated to state that there is a potential for children and adolescents to visit the cultural center. The lease will include a provision regarding the potential presence of lead based paint. Further monitoring of LBP will be the responsibility of the lessee.

Comment

5. **Page 3, Section 7, Paragraph d.:** Will radon surveys be performed periodically? If so, whose responsibility will it be?

Response

5. The existing Army policy does not require further radon testing. The lessee may conduct future radon surveys as appropriate.

Response to USEPA New England Division comments
Draft Finding of Suitability to Lease, Building P-5

Specific Comments

Comment

1. **First Paragraph: a.** The date and title of the EBS should be included. **b.** Since the lease is not attached, the words "with use restrictions specified in the attached lease provisions" should be revised to read "with the use restriction specified below." See comment 4 below. **c.** A sentence should be added describing what the use of the space for a "cultural center" consists of.

Response

1. Comments noted. The FOSL wording has been changed to reflect comment (a) and (b). The FOSL wording has been changed to reflect all restrictions and descriptions of space. The Army has not been provided with specific plans for use of the UNACC; accordingly, notice of use restrictions will be included in the lease.

Comment

2. **Second Paragraph:** Since the environmental condition of the leased premises is contained in both the CERFA Report and the EBS, the EBS should be added to this paragraph. Also, the date of the CERFA Report should be included.

Response

2. The FOSL has been updated.

Comment

3. **Third Paragraph:** A second sentence should be added which states where the leased premises are in the building, or if they constitute the whole building.

Response

3. Comment noted; the entire building is being leased to the Massachusetts Government Land Bank who in turn is subleasing the second floor to a Native American Organization for use as the United Native American Cultural Center.

Comment

4. **Fourth Paragraph: a.** There should be an explanation of why there will be a lack of children and adolescents in the building, especially if it is to be used as a cultural center. Will this be a use limitation in the lease? **b.** If not, will the lease provide for monitoring of the lead paint to ensure that it remains in good condition?

Response

4. The EBS and FOSL have been updated to state that there is a potential for children and adolescents to visit the Cultural Center. Future monitoring of LBP will be the responsibility of the lessee.

Comment

5. A new seventh paragraph should be added which states as follows: The following use restrictions will be set forth in the lease [insert description of the use restrictions pertaining to asbestos and lead paint, including monitoring and maintenance responsibilities.]

Response

5. Comment noted; use restrictions are included in the FOSL. Delineation of monitoring and maintenance responsibilities is beyond the scope of the FOSL document; they will be discussed in the lease agreement.

Environmental Baseline Survey

Proposed Lease Parcel
Building P-12
Fort Devens, Massachusetts

July 1995

Environmental Baseline Survey
Proposed Lease Parcel, Building P-12
Fort Devens, Massachusetts

Executive Summary

An Environmental Baseline Survey (EBS) was undertaken to make a determination of the suitability to lease Building P-12 at Fort Devens, Massachusetts. The proposed lease consists of approximately 111,141 square feet of space to be used by the Massachusetts Government Landbank for administration purposes for a period of one year.

The EBS followed the protocols outlined in current Department of Defense (DoD) guidance. This included records review, review of aerial photographs, and a physical inspection of the proposed lease parcel and adjacent areas. Sampling was conducted for asbestos containing materials only in the proposed lease parcel. Other environmental sampling was not deemed necessary for this parcel. This EBS is a supplement to the *Final Community Environmental Response Facilitation Act (CERFA) Report for the Fort Devens Facility, Fort Devens, Massachusetts*, April 1994.

The only known environmental conditions of potential concern identified on the proposed lease parcel were asbestos containing materials (ACM), lead-based paint (LBP), and radon. The following materials, located in the P-12, were sampled and found to contain asbestos: insulation on pipes, ceiling tile, various floor tiles and associated mastic, and various linoleum and associated mastic. Some materials were not sampled and were assumed to contain asbestos, such as, transite, gaskets, fire doors, and the built-up roof. Possible exposure to proposed lease parcel workers was determined to be minimal due to the location and condition of ACM. No data on LBP exists for Building P-12, but, due to the age of the building, there is a possibility of LBP. Possible threat to the proposed lease parcel workers was minimal due to the good condition of the paint and lack of the highest risk population for LBP, children and adolescents, within the proposed lease parcel. A radon survey identified high radon concentrations in a room in the basement of Building P-12. The radon level exceeded the Environmental Protection Agency's (EPA's) annual average action level of 4 picoCuries per liter (pCi/L). A second radon level taken in the military police logistics location did not exceed the EPAs action level. Hazardous materials or petroleum products were determined to be stored on but not released on the proposed lease parcel.

The proposed lease parcel for Building P-12 is within a parcel identified as being disqualified as a potential clean parcel in the CERFA, April 1994. Disqualification of the 11 acre CERFA parcel (Parcel number 147) containing the proposed lease parcel was for hazardous materials and petroleum release and storage. As stated above, no releases were identified within the proposed lease parcel within Building P-12.

Review of records identified two areas requiring environmental evaluation (AREE), and one underground storage tanks (UST) immediately adjacent to Building P-12. The potential impacts from the AREEs and USTs was found to be highly unlikely since there is no contamination at these sites.

Based upon the above factors, the proposed lease parcel is recommended for classification as suitable for lease. It is further recommended that, in accordance with DoD guidance, a hazardous substance notice is needed because hazardous substances or petroleum products were stored for one year or more, or known to have been released, treated, or disposed on the proposed lease parcel. The hazardous notice should be given due to the historical storage of chemicals such as electrostatic solution, blank roller solvent, and deglazing solvent in the defense printing service (AREE 61AK) located inside the Intelligence School's General Instruction Building (P-12) and the 10,000-gallon No. 2 fuel oil UST. A notice should also be given for the presence of asbestos and radon and the possible presence of LBP within the proposed lease parcel. Storage or releases on adjacent property are unlikely to impact the proposed lease parcel.

1.0 Introduction

This EBS is being undertaken in accordance with current DoD guidance in order to make a determination of the suitability to lease portions of Building P-12 at Fort Devens, Massachusetts. This EBS is a supplement to the Final CERFA Report for the Fort Devens Facility, Fort Devens, Massachusetts, April 1994. The CERFA Report was prepared in accordance with the DoD policy on the environmental review process to reach a Finding of Suitability to Lease (FOSL).

The proposed lease consists of approximately 111,141 square feet of space in Building P-12 to be used by the Massachusetts Government Landbank as the Fort Devens Re-Use Center for a period of one year. This space will be used for administrative purposes by the Re-Use Center. The lease is renewable after one year.

2.0 Site Description

2.1 Proposed Lease Parcel

The proposed lease parcel, Building P-12, consists of approximately 111,141 square feet. Building P-12 was built in 1929 for use as an Infantry Battalion barracks and later converted to administrative and academic offices of the United States Army Intelligence School. The building is of permanent brick construction and is U.S. Government property under the jurisdiction of the Installation Commander, Fort Devens, Massachusetts. Building P-12 is within a parcel identified as disqualified from being a clean parcel in the CERFA Report, April 1994 (Parcel 147). CERFA parcel number 147 was disqualified for reasons referenced in the CERFA Report

(Table 5.1-1: Parcel Descriptions, Fort Devens Facility). In general, this 11 acre CERFA parcel was disqualified because hazardous materials and petroleum may have been stored or released on the parcel.

2.2 Surrounding Property

The surrounding areas to CERFA parcel number 147 are shown in Figure 5.1-1 in the CERFA Report, April 1994.

3.0 Survey Methodology

This EBS is a supplement to the Final CERFA Report for the Fort Devens Facility, Fort Devens, Massachusetts, April 1994. This EBS was conducted in accordance with DoD guidance.

3.1 Records Search - Lease Parcel

A detailed records review was conducted as part of the CERFA Report (refer to Section 2.0 - Scope of Investigation).

3.2 Records Search - Adjacent Facilities

A detailed records review was conducted as part of the CERFA Report (refer to Section 2.0 - Scope of Investigation).

3.3 Aerial Photograph Review

An aerial photograph review was conducted as part of the Installation Assessment for Fort Devens by the Environmental Monitoring Systems Laboratory for the U.S. Army Environmental Center (USAEC) during September 1991. This aerial photograph assessment was reviewed as part of the records review in the CERFA Report (refer to Section 2.0 - Scope of Investigation).

3.4 Interviews

Interviews were conducted as part of the records review in the CERFA Report (refer to Section 2.0 - Scope of Investigation).

3.5 Visual Inspections

Visual inspections of the proposed lease parcel were conducted during the CERFA report preparation and in July 1994 by representatives of the Fort Devens Base Realignment and Closure (BRAC) Environmental Coordinator's office and the USAEC.

3.6 Identification of Sources of Contamination on Adjacent Property

Potential sources of contamination on adjacent property and their potential impacts were identified during the various studies and in the CERFA Report.

3.7 Ongoing Response Actions

There are no ongoing response actions taking place in the proposed lease parcel. There are no ongoing response actions taking place in the adjacent parcels.

3.8 Physical Inspections - Adjacent Areas

Physical inspections of the area adjacent to the proposed lease parcel were conducted in July 1994 by representatives of the Fort Devens BRAC Environmental Coordinator's office and the USAEC.

3.9 Sampling

Asbestos and radon samples were collected in Building P-12 to determine the presence of ACM and radon. Other environmental sampling was not deemed necessary for this parcel.

4.0 Relevant Information Gained During Records Search

A detailed records review was conducted as part of the CERFA Report (refer to Section 2.0 - Scope of Investigation).

5.0 Title Search

A title search was conducted as part of the CERFA Report (refer to Section 2.5 - Title Documents).

6.0 Description of Activities

6.1 Proposed Lease Parcel

Building P-12 was built in 1929 for use as an Infantry Battalion barracks. It was later converted to administrative and academic offices of the United States Army Intelligence School. As of 1995, the Intelligence School vacated Building P-12.

6.2 Adjacent Areas

The adjacent areas to CERFA parcel number 147 are shown in Figure 5.1-1 in the CERFA Report, April 1994.

7.0 Hazardous Substances and Petroleum Products Management Practices and Potential Impacts

7.1 Proposed Lease Parcel

The defense printing service (AREE 61AK) was located inside the Intelligence School's General Instruction Building (P-12) on Buena Vista Street. The area was

considered a hazardous waste satellite accumulation area because the printing system generated hazardous wastes. The system used chemicals such as electrostatic solution, blank roller solvent, and deglazing solvent. As of April 1993, the printing service converted to a new copying system that used a high speed duplicator and toner and no hazardous chemicals, allowing the defense printing service to cease collecting hazardous waste. There was no indication of any historical releases from AREE 61AK and the area no longer generates hazardous wastes. AREE 61AK was recommended for no further action and approved by the EPA, Region I and the Massachusetts Department of Environmental Protection (MADEP). There is one 10,000-gallon fuel oil UST located at Building P-12. There have been no documented releases at this UST and any contamination from this UST would not affect the proposed lease parcel.

7.2 Asbestos Containing Material

The following materials were sampled and contain ACM in Building P-12: insulation on pipes, ceiling tile, various floor tiles and associated mastic, and various linoleum and associated mastic. Certain materials were not sampled and assumed to contain asbestos, such as, transite, gaskets, fire doors, and the built-up roof. All ACM and assumed ACM were found to be in good condition. Possible exposure to proposed lease parcel workers was determined to be minimal due to location and condition of ACM.

7.3 Lead-Based Paint

No data on LBP exists for Building P-12, but due to the age of the building, there is a possibility of LBP. Possible threat to the proposed lease parcel workers was minimal due to the good condition of the paint and lack of the highest risk population for LBP, children and adolescents, within the proposed lease parcel.

7.4 Radon

The Final Radon Survey Report (AREE 67) identified two radon tests taken in the proposed lease parcel (Arthur D. Little, 1995). The year long surveys were conducted in 1990 and radon concentrations in Building P-12 were 11.6 and 1.8 pCi/L. The 11.6 pCi/L level detected in the basement of the building, Room 27, exceeds the EPAs annual average action level of 4 pCi/L and Army Regulation 200-1 action level of 10 pCi/L. The second radon sample did not exceed the EPAs action level.

7.5 Adjacent Areas

AREE 61AL, an adjacent area, consisted of the computer room inside the Intelligence School's Post Headquarters, Building P-3. Since there was no indication of any historical releases from AREE 61AL and the area no longer generates hazardous wastes, AREE 61AL was recommended for no further action and approved by the EPA and the MADEP. This site would not affect the proposed lease parcel.

8.0 Relevant Information From Records Review, Interviews, and Aerial Photograph Review

A detailed records review was conducted as part of the CERFA Report (refer to Section 2.0 - Scope of Investigation). No new areas of concern were identified either within the proposed lease parcel or in adjacent areas as a result of the aerial photograph review.

9.0 Ongoing Response Actions

There are no ongoing or completed response actions within or adjacent to the proposed lease parcel.

10.0 Recommendation as to Suitability to Lease

After inspection of the proposed lease parcel and adjacent areas and review of the documentation of adjacent areas, as well as review of the anticipated activities within the proposed lease parcel, it is recommended that the parcel be found suitable to lease to the Massachusetts Government Landbank for the proposed activities. The adjacent areas are not expected to have any impact on the proposed lease parcel. The only potential environmental concerns within the proposed lease area are ACM in certain building materials, radon, and LBP on walls and structures within the building. The ACM is in good condition and the Massachusetts Government Landbank's activities are not anticipated to affect the ACM material. Hazards from LBP are minimal to non-existent due to the good condition of the painted surfaces within the Building P-12. Because LBP presents the greatest danger to children and adolescents, neither of which are anticipated to be exposed to such dangers within building, LBP does not present a foreseeable threat. A hazardous substance notice should be given for the presence of asbestos and radon and potential presence of LBP within the proposed lease parcel.

It is further recommended that, in accordance with DoD guidance, a hazardous substance notice is needed because hazardous substances or petroleum products were stored for one year or more, or known to have been released, treated, or disposed of on the proposed lease parcel. The hazardous notice should be given due to the historical storage of chemicals such as electrostatic solution, blank roller solvent, and deglazing solvent in the defense printing service (AREE 61AK) located inside the Intelligence School's General Instruction Building (P-12) and the 10,000-gallon UST. Storage or releases on adjacent property are unlikely to impact upon the proposed lease parcel.

11.0 References

Arthur D. Little, Inc. 1994. *Final Community Environmental Response Facilitation Act (CERFA), Fort Devens Facility, Fort Devens, Massachusetts*. Submitted to the U.S. Army Environmental Center, Aberdeen Proving Ground, MD. April.

Arthur D. Little, Inc. 1995. *Final Asbestos [AREE 65] Report, Fort Devens, Massachusetts*. Submitted to U.S. Army Environmental Center, Aberdeen Proving Ground, MD. May.

Arthur D. Little, Inc. 1995. *Final Maintenance and Waste Accumulation Areas (AREE 61) Report, Base Realignment and Closure Environmental Evaluation (BRAC EE), Fort Devens, Massachusetts*. Submitted to the U.S. Army Environmental Center, Aberdeen Proving Ground, MD. June.

Arthur D. Little, Inc. 1995. *Final Radon Survey Report (AREE 67) Report, Base Realignment and Closure Environmental Evaluation (BRAC EE), Fort Devens, Massachusetts*. Submitted to the U.S. Army Environmental Center, Aberdeen Proving Ground, MD. May.

Finding of Suitability to Lease (FOSL)

Fort Devens
(Building P-12)

Fort Devens, Massachusetts

August 1995

1.0 Purpose and Finding

a. The purpose of this FOSL is to document a decision made pursuant to Department of Defense (DoD) FOSL guidance that property is suitable to lease.

b. Based on results detailed in the Environmental Baseline Survey (EBS), I have determined that Building P-12 is suitable for lease for a period of one year to be used by the Massachusetts Government Landbank as the Fort Devens Re-Use Center. The lease is renewable after one year.

2.0 Property Description

The proposed lease parcel, Building P-12, consists of approximately 111,141 square feet. Building P-12 was constructed in 1929 for use as an Infantry Battalion barracks. It was later converted to administrative and academic offices of the U.S. Army Intelligence School. The building is of permanent brick construction and is U.S. Government property under the jurisdiction of the Installation Commander, Fort Devens, Massachusetts.

The proposed lease parcel is located on Buena Vista Street with the parade grounds directly south of Building P-12. A parking lot, shared by four buildings, P-12, P-11, P-13, and P-3, is located just north of the proposed lease parcel. Building P-11 is located east of Building P-12 and Building P-3 is located west of Building P-12. Sherman Avenue is further west of Building P-3.

3.0 Environmental Condition of Property

An analysis of the environmental condition of the proposed lease parcel has been made by the U.S. Army Environmental Center (USAEC) in the form of an EBS for Building P-12. The EBS was conducted in accordance with the requirements of the DoD FOSL guidance for conducting an EBS.

The only environmental conditions of potential concern identified on the proposed lease parcel were asbestos containing materials (ACM), lead-based paint (LBP), and radon. The following ACM were identified in Building P-12: insulation on pipes, ceiling tile,

various floor tiles and associated mastic, and various linoleum and associated mastic. Certain materials were not sampled and assumed to contain asbestos, such as, transite, gaskets, fire doors, and the built-up roof. Possible exposure to proposed lease parcel workers was determined minimal due to the location and condition of ACM. Documentation on LBP within Building P-12 was not available, however, due to the age of the building, there is a possibility of LBP. Possible exposure to proposed lease parcel workers was determined minimal due to the good condition of the paint. Children and adolescents will not occupy the proposed lease parcel. A radon survey identified high radon concentrations within one room in the basement of the building. The radon level exceeded the U.S. Environmental Protection Agency's (EPA's) annual average action level of 4 picoCuries/liter. A second radon level taken in a second location of the building did not exceed the EPA's action level.

Hazardous materials are not currently stored on the proposed lease parcel and there was no documentation or evidence through visual inspection that releases of hazardous materials occurred in the proposed lease parcel or onto adjacent property. A 10,000-gallon No. 2 fuel oil underground storage tank (UST) exists outside Building P-12 and there have been no documented releases at this UST.

Based upon the EBS and the references cited therein, the proposed lease parcel is suitable for lease for its intended purpose because although hazardous substances and petroleum products were stored for a year or more on the parcel, there is no evidence of a release or disposal of such substances; and the property is not now contaminated with hazardous substances or petroleum products. In accordance with the DoD FOSL guidance and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 120(h), a hazardous substance notice will be given for historical chemical storage, such as electrostatic solution, blank roller solvent and deglazing solvent, the 10,000-gallon No. 2 fuel oil UST, and the presence of asbestos and potential presence of LBP within the proposed lease parcel. It should be noted that construction or modifications to building structures by the Lessee that would involve cutting or the potential abrasion of ACM must be performed in a manner to minimize exposure to asbestos containing dust and ensure proper clean-up and disposal of post-construction debris.

Adjacent properties do not pose a risk to human health or the environment on the proposed lease parcel because although hazardous substances and/or petroleum products were stored for a year or more on the adjacent properties, there is no evidence of a release or disposal of such substances. Adjacent properties include the parking lot just north of the proposed lease parcel and the sidewalks surrounding Building P-12.

Fort Devens
(Building P-12)

3.1 Regulatory Comment

Regulatory agencies were notified at the initiation of the EBS and FOSL. Regulatory comments received during the development of these documents were reviewed and incorporated.

3.2 Lease Provisions

a. Hazardous substance or petroleum product notices, as provided in Section 3.0, will be given.

b. Provisions will be included in the lease to ensure that the requirements of Section IV (E) and (G) of the DoD FOSL Policy are met.

c. The model lease provisions attached to the DoD FOSL Policy will be included in the lease.

d. A notice will also be given for the potential of asbestos, radon, and LBP within the proposed lease parcel. This notice will include a statement about the responsibilities of the Lessee if the use of the proposed lease parcel changes to a residential property.

e. The Army shall have access to the property in any case in which a response action or corrective action is found to be necessary after date of property lease, or such access is necessary to carry out a response action or corrective action on adjacent property.

4.0 Conclusion

Based on the above information, I conclude that the DoD requirements to reach a Finding of Suitability to Lease have been met and therefore this parcel, Building P-12, can be used pursuant to the proposed lease. The CERCLA 120(h) (l) notice requirements and the lease restrictions discussed above must be placed in the lease.

FRANK R. FINCH, P.E.
Colonel, GS
Director, Environmental Programs

Comment and Response Package

USEPA New England Division Comments on the Draft Environmental Baseline Survey, Building P-12

Submitted to Fort Devens Base Realignment and Closure Division, Environmental Management Office

Prepared for:

U.S. ARMY ENVIRONMENTAL CENTER
ABERDEEN PROVING GROUND, MARYLAND 21010

Requests for this document must be referred to:
Commander, U.S. Army Environmental Center
Aberdeen Proving Ground, Maryland 21010

JULY 1995

Response to USEPA New England Division Comments
Draft Environmental Baseline Survey, Building P-12

General Comment

It is recommended that the Army attach the 9 September 1993 DoD Guidance concerning EBSs and FOSLs to the EBS in an Appendix.

Response

Comment may be taken into consideration for future EBSs and FOSLs.

Specific Comments

Comment

1. **Page 1, Section 1, Introduction**: A sentence should be added which states where the leased premises are in the building. It is recommended that a building plan showing the location of the leased premises should also accompany this EBS. Additionally, a sentence should be added describing the use of the space (e.g. -- The building will be used for office purposes.)

Response

1. The EBS has been changed to indicate that the proposed lease parcel, Building P-12, now consists of the entire building. The space will e used as office space for personnel. A map will be included with future EBSs indicating the proposed parcel.

Comment

2. **Page 3, Section 7, Paragraph a.**: Do you anticipate the lessee generating any hazardous substances on the leased parcel?

Response

2. It is not anticipated that the lessee will generate any hazardous substances.

Comment

3. **Page 3, Section 7, Paragraph a.**: There is the mention of a 10,000-gallon fuel oil underground storage tank (UST) associated with P-12. Who will have the responsibility for overseeing the regulatory compliance and release cleanup programs?

Response

3. The Fort Devens Environmental Management Office (EMO) will be responsible for this UST, not the Re-Use Center personnel.

Comment

4. **Page 3, Section 7, Paragraph b.**: With regard to asbestos containing material (ACM), is the required plan in place to monitor and maintain the condition of the identified ACM? Whose responsibility will it be to implement this plan in the leased parcel? This should be set forth in the lease use restrictions and referenced in new paragraph seven of the FOSL.

Response

4. The ACM is monitored and maintained by the EMO and the Directorate of Public Works (DPW) at Fort Devens. The EMO is responsible for implementing the ACM monitoring and maintenance plan.

Comment

5. **Page 4, Section 7, Paragraph c.**: The EBS states that no data exist on lead-based paint, yet it also mentions that the paint is in good condition. How was this conclusion reached? There should be an explanation of why there will be a lack of children and adolescents in the building. Will this be a use limitation in the lease? If children will not be restricted from using the leased premises, will there be a plan to monitor and maintain the condition of the paint? This should be set forth in the lease use restrictions and described in paragraph seven of the FOSL.

Response

5. A visual inspection was done as part of the EBS. The condition of the painted surfaces is one area that is looked at during these site inspections. There will be no children and/or adolescents living in the leased area of Building P-12. There may be use limitations in the lease referring to the use of this leased area for residential purposes. However, "residential use" is not the intended use for this leased area of Building P-12.

Comment

6. **Page 4, Section 7, Paragraph d.**: With regard to radon, the EBS states that detected levels of radon were below 4 pCi/L. After reviewing the final CERFA Report (April 1994), specifically Table 5.1-1, pg. 64, it indicates that the above-mentioned radon level was exceeded somewhere on Parcel 147. Further review of the draft Radon Survey Report (AREE 67, July 1994), specifically Appendix D, indicates that one of the highest levels of radon detected on Fort Devens (11.60 Pci/L) was detected in Room B-27 of Building P-12. Where is Room B-27 in relation to the leased property? What were the levels, if any, detected on the leased property? Have any abatement measures been proposed? Will monitoring be continued? If so, by whom? If B-27 is part of the leased premises, there should be a use restriction regarding radon, including monitoring, in the lease and it should be described in paragraph seven of the FOSL.

Response

6. The radon section of the EBS has been changed to reflect radon samples taken within the building. The FOSL has also been changed as necessary.

Response to USEPA New England Division Comments
Draft Finding of Suitability to Lease, Building P-12

Specific Comments

Comment

1. **First Paragraph: a.** The data and title of the EBS should be included. **b.** Since the lease is not attached, the words "with use restrictions specified in the attached lease provisions" should be revised to read "with the use restrictions specified below." See comment 4 below. **c.** A sentence should be added describing the use of the space (e.g. -- the building will be used for office purposes.)

Response

1. Comments noted, the FOSL wording has been changed to reflect all restrictions and descriptions of space.

Comment

2. **Second Paragraph:** Since the environmental condition of the leased premises is contained in both the CERFA Report and the EBS, the EBS should be added to this paragraph. Also, the date of the CERFA Report should be included.

Response

2. The FOSL has been updated.

Comment

3. **Third Paragraph:** A second sentence should be added which states where the leased premises are in the building.

Response

3. Comment noted; the entire building is being leased.

Comment

4. **Fourth Paragraph: a.** There should be an explanation of why there will be a lack of children and adolescents in the building. Will this be a use limitation in the lease? If not, will the lease provide for monitoring of the lead paint to ensure that it remains in good condition? **b.** Radon should be added to this paragraph if Room B-27 is part of the leased premises. See comment 5 to the EBS.

Response

4. There will be no children and/or adolescents living in the leased area of Building P-12. The lease will contain restrictions which will not allow use for residential purposes. Comment noted; the radon section of the report has been changed to reflect radon samples taken within the building.

Comment

5. A new seventh paragraph should be added which states as follows: The following use restrictions will be set forth in the lease [insert description of the use restrictions pertaining to asbestos, lead paint, and radon, including monitoring and maintenance responsibilities.]

Response

5. Comment noted; use restrictions are included in the FOSL.

Final

Environmental Baseline Survey for Proposed Lease Parcel Building P-2

Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts

Prepared for:

U.S. ARMY ENVIRONMENTAL CENTER
ABERDEEN PROVING GROUND, MARYLAND 21010

Prepared by:

ARTHUR D. LITTLE, INC.
25 Acorn Park
Cambridge, Massachusetts 02140-2390

Requests for this document must be referred to:
Commander, U.S. Army Environmental Center
Aberdeen Proving Ground, Maryland 21010

November 1995

AEC Form 45, 1 Feb 93 replaces THAMA Form 45 which is obsolete.

Final

Arthur D Little

Environmental Baseline Survey for Proposed Lease Parcel Building P-2

Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts

Submitted to

U.S. Army Environmental Center (USAEC)
Aberdeen Proving Ground, Maryland

Revision 2
November 1995

Arthur D. Little, Inc.
Acorn Park
Cambridge, Massachusetts
02140-2390

ADL Reference 67073-21

DAAA15-91-D-0016
Delivery Order 0005

This document is printed on recycled paper and is recyclable.

Table of Contents

Acronyms and Abbreviations iii

Executive Summary iv

1.0 Introduction 1-1

2.0 Site Description 2-1
2.1 Proposed Lease Parcel 2-1
2.2 Adjacent Properties 2-1

3.0 Survey Methodology 3-1
3.1 Review of the Community Environmental Response Facilitation Act 3-1
3.2 Records Search - Lease Parcel 3-1
3.3 Records Search - Adjacent Properties 3-2
3.4 Aerial Photographs Review 3-3
3.5 Interviews 3-3
3.6 Visual Inspections 3-3
3.7 Identification of Sources of Contamination on Adjacent Properties 3-3
3.8 Ongoing Response Actions 3-4
3.9 Physical Inspections - Adjacent Properties 3-4
3.10 Sampling 3-4

4.0 Relevant Information Gained During Records Search 4-1

5.0 Title Search 5-1

6.0 Description of Activities 6-1
6.1 Proposed Lease Parcel 6-1
6.2 Adjacent Properties 6-1
6.2.1 Building P-1, Post Headquarters 6-1
6.2.2 Building P-25, Readiness Group Devens 6-2
6.2.3 Open Field, West of Building P-2 6-2
6.2.4 Hornet Field, South of Building P-2 6-2

7.0 Hazardous Substances and Petroleum Products Management Practices and Potential Impacts 7-1
7.1 Proposed Lease Parcel 7-1
7.2 Adjacent Properties 7-1
7.2.1 Asbestos-Containing Materials 7-1
7.2.2 Radon Concentrations 7-2
7.2.3 Underground Storage Tanks 7-2
7.2.4 Storm Sewer System Number 23 7-2

8.0 Relevant Information From Records Review, Interviews, and Aerial Photographs Review 8-1

9.0 Ongoing Response Actions 9-1

10.0 Recommendation as to Suitability to Lease 10-1

11.0 Selected References 11-1

12.0 Map References 12-1

List of Figures

Figure 1: Building P-2 1-2

Acronyms and Abbreviations

ACM	Asbestos-Containing Materials
AOC	Area of Contamination
AREE	Area Requiring Environmental Evaluation
BRAC	Base Realignment and Closure
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERFA	Community Environmental Response Facilitation Act
DEPMSEC	Directorate of Plans, Mobilization, and Security
DoD	Department of Defense
EBS	Environmental Baseline Survey
EPA	United States Environmental Protection Agency
FIRM	Flood Insurance Rate Map
FOSL	Finding of Suitability to Lease
IAG	Interagency Agreement
No.	Number
PAO	Public Affairs Office
PCB	Polychlorinated Biphenyl
pCi/L	picoCuries Per Liter
SA	Study Area
SACM	Suspect Asbestos-Containing Materials
USACE	United States Army Corps of Engineers
USAEC	United States Army Environmental Center
UST	Underground Storage Tank
UXO	Unexploded Ordnance

Executive Summary

An Environmental Baseline Survey (EBS) was undertaken to make a determination of the suitability to lease Building P-2 at Fort Devens, Massachusetts, to NYNEX. The proposed lease parcel consists of Building P-2, which contains approximately 4,344 square feet of space to be used by NYNEX for the next seven years, for administrative and telecommunication services. The proposed lease parcel is located in the Main Post on the corner of Buena Vista Street and Balls Bluff Street.

The EBS followed protocols outlined in the current Department of Defense (DoD) guidance on the environmental review process for lease action of real property at Base Realignment and Closure (BRAC) Installations. This process includes a records review, a review of aerial photographs, and a physical inspection of the proposed lease property and adjacent areas. The building within the proposed lease parcel was inspected for asbestos-containing materials (ACM) and radon. No other sampling activities occurred within the building on the proposed lease parcel.

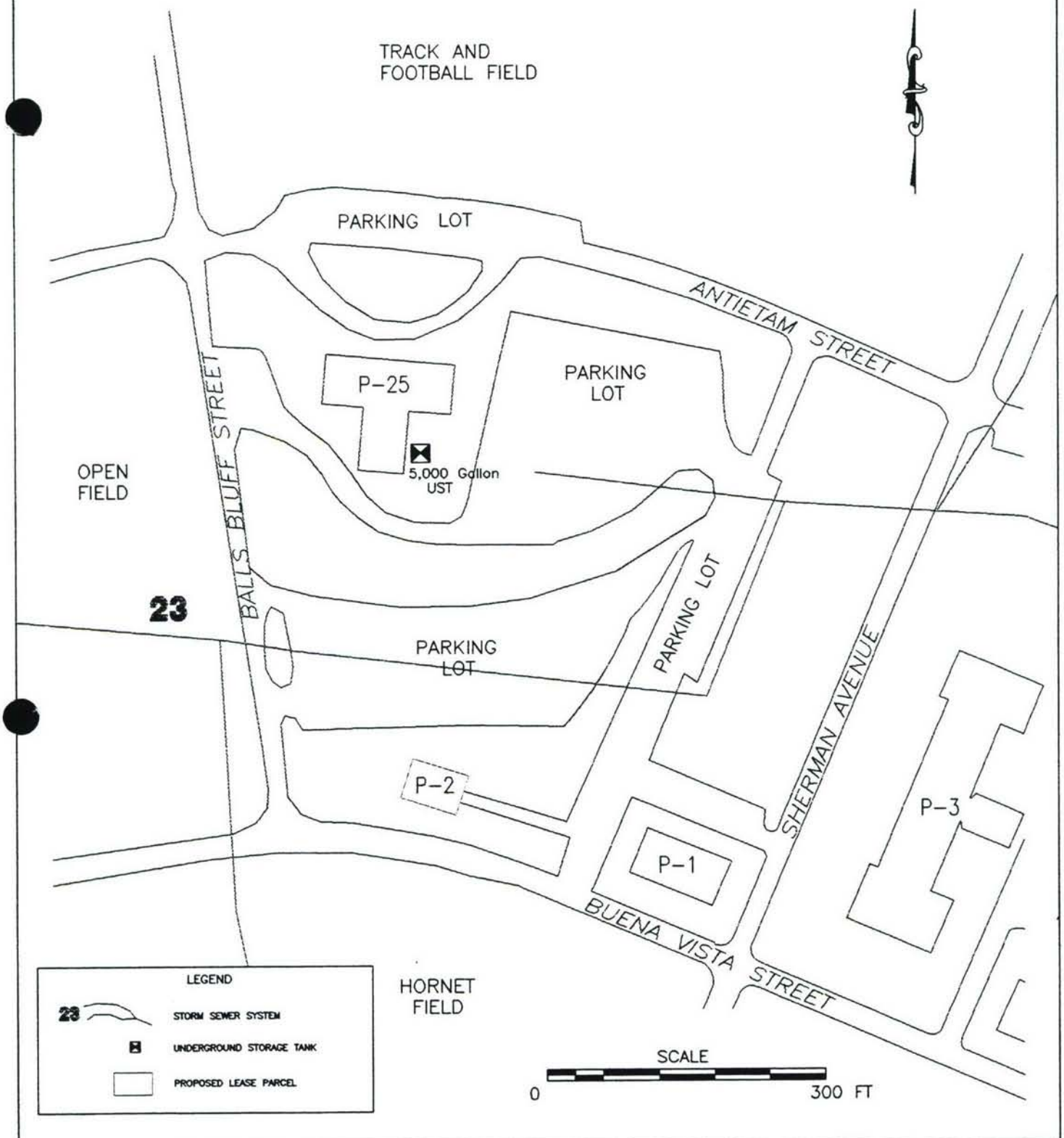
Potential environmental concerns identified on the proposed transfer parcel are ACM, lead-based paint, and radon. The following building materials were assumed to contain asbestos: fire door insulation and asphalt roof shingles. These materials were not sampled due to the potential of damaging the integrity of the material and the material's inaccessibility. Assumed ACM was intact and in good condition, the following materials were sampled and found not to contain asbestos. They include 1-foot by 1-foot vinyl floor tiles, floor tile mastic, wall board, and wall plaster. A lead paint survey has not been conducted on Building P-2, however, because the building was constructed in 1939, there is a possibility of lead-based paint on both interior and exterior building surfaces. The building underwent a radon survey in 1989 to 1990 that identified high radon concentrations in the basement of the building. The radon level in the basement exceeded the U.S. Environmental Protection Agency's (EPA's) annual average action level of 4 pCi/L. A second radon level taken at an unidentified building location, did not exceed the EPA's action level.

According to the Community Environmental Response Facilitation Act (CERFA), the proposed lease parcel is classified as CERFA parcel with qualifiers. This determination characterizes the parcel as containing no hazardous materials or petroleum products, but states the parcel contains non-Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) hazardous materials such as asbestos, lead-based paint, and radon.

Based upon the above factors, the proposed lease parcel is recommended for classification as suitable for lease. In accordance with DoD guidance, a hazardous substance notice is needed because of the presence of asbestos and radon and potential presence of lead-based paint within the proposed lease parcel.

1.0 Introduction

This Environmental Baseline Survey (EBS) is being undertaken in accordance with current Department of Defense (DoD) guidance in order to make a determination of the suitability to lease Building P-2 at Fort Devens, Massachusetts. The proposed lease parcel consists of approximately 4,344 square feet of space (Building P-2) to be used by NYNEX for the next seven years for administrative and telecommunication services. Although the parking lot is not included in the proposed lease, NYNEX will have the right to use the parking lot adjacent to Building P-2, on Balls Bluff Street (See Figure 1).



Arthur D Little		TITLE: FIGURE 1 PROPOSED LEASE PARCEL BUILDING P-2, FORT DEVENS, MASSACHUSETTS	
APPROVALS	DATE		
DRAWN MSB	4/27/95	PREPARED FOR: USAEC	SCALE: 1 IN. = 150 FT.
CHECKED			
QA/CONTROL		DATE: APRIL 1995	DWG. NO.: 67073-008
TECH REVIEW			
PROJ MNGR		SOURCE: USAEC, ADL	SHEET 1 OF 1

2.0 Site Description

2.1 Proposed Lease Parcel

The proposed lease parcel, Building P-2, is a three-story, brick structure containing approximately 4,334 square feet of space. Building P-2 was constructed in 1939 for use as a radio, telephone, and telecommunications center. The building currently contains the Installation's telecommunications system network located on the second floor, the Public Affairs Office (PAO) located on the first floor, and additional storage space and a furnace room located in the basement. The building is situated within the town of Harvard and identified in the National Register of Historic Places as part of the Fort Devens Historic District. Building P-2 is located on Buena Vista Street with a parking lot situated on the north side of the building, with access from Balls Bluff Street. The building uses gas heat and is not located within a 100-year floodplain. The building was made handicap accessible in 1992.

2.2 Adjacent Properties

Buena Vista Street runs along the southern boarder of the proposed lease parcel and Hornet Field is located across Buena Vista Street. Balls Bluff Street runs along the western boarder of Building P-2 with an unnamed, open field located across Balls Bluff Street. Directly north of Building P-2 is the building's parking lot and another historical structure, Building P-25. Building P-25 is currently occupied by the Readiness Group Devens. East of Building P-2 is a third historical structure, Building P-1, Post Headquarters, and the building's parking lot. Sherman Avenue is further east of Building P-1.

3.0 Survey Methodology

This EBS was conducted in accordance with DoD guidance and consisted of the following:

3.1 Review of the Community Environmental Response Facilitation Act

A study conducted in accordance with the Community Environmental Response Facilitation Act (CERFA)-identified property of Fort Devens that offers the greatest opportunity for immediate reuse and redevelopment. As part of the CERFA process, property where no Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-regulated hazardous substances or petroleum products were stored, released, or disposed of was identified. Other non-CERCLA hazardous materials that were identified include asbestos, radon, polychlorinated biphenyls (PCBs), and lead-based paint. At the close of the evaluation, four types of CERFA parcels were identified: a CERFA parcel, a CERFA parcel with qualifier, a CERFA-disqualified parcel, and a CERFA-excluded parcel.

The proposed lease parcel is CERFA-qualified, which characterizes the parcel as containing no hazardous materials or petroleum products, but states that the parcel contains non-CERCLA hazardous materials such as asbestos, lead-based paint, and radon. A second characteristic of a CERFA-qualified area is that the site does not contain or have in the past a release of CERCLA hazardous materials. Building P-2 has undergone asbestos and radon surveys. Seven suspect asbestos-containing materials (SACM) were identified in Building P-2. Two SACM, fire door insulation and asphalt roof shingles, were not sampled due to inaccessibility, but assumed to contain asbestos. The remaining SACM were sampled and found not to contain asbestos. Radon testing was conducted in two areas in Building P-2, the basement and at a second location not identified in the radon report. The radon level taken from the unidentified location was 0.20 picoCuries per liter (pCi/L), below the EPA's annual average action level of 4.0 pCi/L. However, the radon level taken in the basement of the building was 7.4 pCi/L, above the EPA's annual average action level.

3.2 Records Search - Lease Parcel

The records search consisted of a review of environmental reports that studied the proposed lease parcel. References are provided in Section 11.0. The records included:

- Flood Insurance Rate Map (FIRM). (Federal Emergency Management Agency, 1982).

- *Task 4 Draft Report for the Phase I Non-Residential Floor Drain Evaluation Study, Fort Devens, Mass., Volume I.* (SEA Consultants, 1994).

- *Final Radon Survey Report (AREE 67) Base Realignment and Closure Environmental Evaluation (BRAC EE) Part II, Fort Devens, Mass.* (Arthur D. Little, 1995a).

- *Final Asbestos Survey Report (AREE 65) Base Realignment and Closure Environmental Evaluation (BRAC EE) Part II, Fort Devens, Mass.* (Arthur D. Little, 1995b).

- *Final Community Environmental Response Facilitation Act (CERFA) Report, Fort Devens Facility, Fort Devens, Mass.* (Arthur D. Little, 1994a).

- *Final Storm Sewer System Evaluation (AREE 70) Report BRAC EE, Fort Devens, Mass.* (Arthur D. Little, 1994b).

- *Historic Inventory Survey for Fort Devens, Mass.* (U.S. Army Corps of Engineers, 1993).

3.3 Records Search - Adjacent Properties

The records search for adjacent facilities consisted of a review of environmental reports that studied areas adjacent to the proposed lease parcel that may have affected the lease parcel. These records include:

- *Task 4 Draft Report for the Phase I Non-Residential Floor Drain Evaluation Study, Fort Devens, Mass.,* Volume I. (SEA Consultants, 1994).

- *Final Radon Survey Report (AREE 67) Base Realignment and Closure Environmental Evaluation (BRAC EE) Part II, Fort Devens, Mass.* (Arthur D. Little, 1995a).

- *Final Asbestos Survey Report (AREE 65) Base Realignment and Closure Environmental Evaluation (BRAC EE) Part II Fort Devens, Mass.* (Arthur D. Little, 1995b).

- *Final Community Environmental Response Facilitation Act (CERFA) Report, Fort Devens Facility, Fort Devens, Mass.* (Arthur D. Little, 1994a).

- *Storm Sewer System Evaluation (AREE 70) Report BRAC EE, Fort Devens, Mass.* (Arthur D. Little, 1994b).

- *Historic Inventory Survey for Fort Devens Massachusetts, ENSR Consulting and Engineering, Fort Devens, Mass.* (U.S. Army Corps of Engineers, 1993).

- *Fort Devens Underground Storage Tank Management Plan, Fort Devens, Mass.* (Fort Devens Environmental Management Office, 1994).

3.4 Aerial Photographs Review

The aerial photographs review for Fort Devens, including the proposed lease parcel and adjacent areas, was conducted by the Environmental Photographic Interpretation Center (EPIC, 1991). Aerial photographs and historical drawings reviewed during the preparation of the EBS include:

- General Site Map. Fort Devens, Massachusetts (U.S. Army Corps of Engineers, 1986)
- Fort Devens General Map, Fort Devens, Massachusetts (War Department, 1919)
- Master Plan Fort Devens, General Road Map, Fort Devens, Massachusetts (U.S. Army Corps of Engineers Office, 1949)
- Property Map, Fort Devens, Massachusetts (War Department, 1920)
- General Layout Plan, Fort Devens, Massachusetts (Post Engineer, 1954)

3.5 Interviews

Interviews with current employees were conducted during CERFA and asbestos investigations

3.6 Visual Inspections

Visual inspections of the proposed lease parcel were conducted as part of the CERFA and asbestos investigations. The CERFA inspection took place during the summer of 1993. The asbestos investigations took place during the spring of 1994.

3.7 Identification of Sources of Contamination on Adjacent Properties

After a review of the various studies identified in Section 3.3, there are no potential sources of contamination on properties adjacent to the proposed parcel.

3.8 Ongoing Response Actions

Currently, no sites within or adjacent to the proposed lease parcel are experiencing an ongoing response action.

3.9 Physical Inspections - Adjacent Properties

Physical inspections of properties adjacent to the proposed lease parcel were conducted during the radon investigations in 1989 and the asbestos investigations during the spring and summer of 1994.

3.10 Sampling

Asbestos and radon samples were collected in Building P-2 to determine the presence of ACM and radon. Samples of materials were collected during March 1994 to determine the preserve of asbestos, and air samples were collected between 1989 and 1990 to determine the presence of radon. Sampling of adjacent properties occurred during the same period.

4.0 Relevant Information Gained During Records Search

During the records search, no areas of contamination (AOCs) nor study areas (SAs), as defined in the Interagency Agreement (IAG), were determined to be located within the proposed lease parcel. Environmental concerns associated with both the lease parcel and adjacent properties are described in Section 7.0.

5.0 Title Search

The proposed lease parcel is contained on a portion of Fort Devens that was acquired in 1919, when approximately 20 acres were purchased from a private landowner. Detailed information of previous owners were identified in the CERFA Report (Arthur D. Little, 1994a).

6.0 Description of Activities

6.1 Proposed Lease Parcel

Fort Devens, formerly known as Camp Devens, was established in 1917. In 1931 Camp Devens was declared a permanent military installation and officially designated as Fort Devens. The proposed lease parcel was acquired in 1919 from private landowners of the town of Harvard. During the Installation's early years of operation, the center of the Main Post was laid out in a U-shaped arrangement of two parallel roads, Buena Vista Street and Antietam Street. The roads enclosed a large area known as the "Drill Grounds." Near the center of the arc of the "U," on Buena Vista Street, is the location of Building P-2.

In 1919, the area where Building P-2 currently exists was the Headquarter's Logistics Division, referred to as the "Headquarters' Train." The area contained approximately six World War I administrative structures. A majority of the buildings constructed during World War I were prefabricated wood structures, intended to serve only for the duration of the war. After the war, Fort Devens existed under a caretaker status, and as of the late 1920s, a majority of the World War I structures were demolished. The first new permanent structures were constructed between 1929 and 1939 around the "Drill Grounds," later declared the "Parade Grounds." Building P-2, constructed in 1939, consists of brick masonry and is designed in Georgian Revival style. The building functioned as the Fort Deven's radio, telephone, and telegraph building.

Since 1939, Building P-2 has functioned as the Installation's telecommunications center and telephone switch operators occupied the first floor and part of the second floor. In 1981, the Installation upgraded the telecommunications system, no longer requiring telephone switch operators. The first floor would now be used for administrative purposes. The second floor currently contains the telephone system hardware. A variety of tenants occupied the first floor of Building P-2 from 1981 to the present tenant. The first floor occupants were: the Directorate of Plans, Mobilization, and Security (DEPMSEC) from 1981 to 1983; the Directorate of Information Management from 1983 to 1987; the Post Safety Office from 1987 to 1989; and the Public Affairs Office from 1989 to 1995. The 4,344-square-foot building has always been heated by gas. There are three floor drains in the building, all of which are connected to the sanitary sewer system. Two drains are in the basement, and one is on the first floor.

6.2 Adjacent Properties

6.2.1 Building P-1, Post Headquarters

The Post Headquarters, Building P-1, is located east of the proposed lease property. Building P-1 was constructed in 1934 to function as the Post Headquarters. It is a

three-story, brick structure currently supporting the Post Commander, Deputy Commander, and the BRAC offices. Building P-1 is also located in the area historically referred to as the "Headquarters' Train" area. From 1947 to 1949 Fort Devens shut down a majority of their operations and the University of Massachusetts occupied the base, using the buildings for classroom and administrative purposes. In 1949, when the Army returned to Fort Devens, Building P-1 once again functioned as Post Headquarters. The 10,552-square-foot building has always been heated by gas. There are no floor drains in the building.

6.2.2 Building P-25, Readiness Group Devens

Building P-25 was constructed in 1931 to function as a Post Hospital. The hospital's designed capacity was 30 beds. The building operated as a hospital through World War II and up until 1947, when Fort Devens was occupied by the University of Massachusetts. In 1949, the Army returned, and Building P-25 was used for administrative purposes. Three tenants are known to have occupied Building P-25 during the 1950s and 1960s: the Communication Office, the Judge Advocate's Office, and the Photography Lab. In 1963, these three tenants moved to Building P-3, and the building continued to be used for administrative purposes. It is unclear who occupied the building from 1963 until the mid-1970s, when the 20th Army Corps occupied the building. By the mid-1980s the current tenant, Readiness Group Devens, occupied the building. Building P-25 was originally heated by coal and according to Real Property Records (Real Property Office, 1931), is currently heated by both gas and oil. A 5,000-gallon, No. 2 heating oil, underground storage tank is located outside the boiler room. According to the *Fort Devens Underground Storage Tank Management Plan*, the tank was installed around 1966 (Fort Devens Environmental Management Office, 1994). The building has four floor drains, three located in the basement, and one located on the first floor. All drains discharge into the sanitary sewer system.

6.2.3 Open Field, West of Building P-2

West of Building P-2 and across Balls Bluff Street is an open, grassy field. During World War I, the area contained wooden structures occupied by the Field Signal Battalion and the Telegraph Battalion. The World War I structures were demolished during the late 1920s, and according to base drawings, no other structures existed in the area afterward. By the mid-1950s, the areas was used by Fort Deven's residents for public vegetable gardens. The gardens existed in the area until the early 1990s. The field currently remains unused.

6.2.4 Hornet Field, South of Building P-2

Hornet Field is located just south of Building P-2, on the other side of Buena Vista Street. World War I-era historical drawings illustrate two buildings present in the area bordering Buena Vista Street. Their specific function is unknown, and the structures were demolished during the late 1920s. According to the Army's personnel, the field has been used as a parade field since the late 1920s.

7.0 Hazardous Substances and Petroleum Products Management Practices and Potential Impacts

7.1 Proposed Lease Parcel

The hazardous substances and petroleum management practices associated with the proposed lease parcel were reviewed as part of the EBS. No past spill or maintenance and waste accumulation areas are associated with Building P-2. The *Final Asbestos Report, AREE 65*, identified two assumed ACM and five non-ACM (Arthur D. Little, 1995b). The two assumed ACM were fire door insulation and asphalt roof shingles. These materials were not sampled due to the potential of damaging the integrity of the material and the materials inaccessibility. The non-ACM include 1-foot by 1-foot vinyl floor tiles, floor tile mastic, wall board, and plaster.

Documentation does not exist for determining the presence or absence of lead-based paint. However, since the building was constructed in 1939, there is a potential for lead-based paint throughout the building.

The *Final Radon Survey Report, AREE 67*, identified two radon tests taken in the proposed lease parcel (Arthur D. Little, 1994a). The year-long surveys were conducted in 1990 and radon concentrations in Building P-2 were 7.4 and 0.20 pCi/L. The 7.4 pCi/L level detected in the basement of the building exceeds the EPA's annual average action level of 4 pCi/L.

7.2 Adjacent Properties

7.2.1 Asbestos-Containing Materials

The *Final Asbestos Report, AREE 65*, identified ACM in Building P-1 (Arthur D. Little, 1995a). Two types of boiler insulation found in the building's boiler room were the only confirmed ACM identified. Vinyl floor tiles measuring 9-inch by 9-inch and associated mastic were not sampled, but assumed to contain asbestos. The following building materials were sampled and found to be non-asbestos containing: 2-foot by 4-foot fibrous ceiling tile, wall tile, wall board, ceiling tile mastic, 1-foot by 1-foot floor tile and associated mastic, and ceiling plaster.

The *Final Asbestos Report, AREE 65*, also identified ACM in Building P-25 (Arthur D. Little, 1995a). Materials containing asbestos in the building include: aircell pipe insulation on steam heating lines, pipe fittings on steam heating lines, cementitious gasketing, 1-foot by 1-foot vinyl floor tile and associated mastic, and adhesive mastic on 1-foot by 1-foot non-suspect ceiling tile. The following materials were not sampled due to the potential to damage the integrity of the material, but

were assumed to be ACM: 9-inch by 9-inch vinyl floor tile and associated mastic, asphalt roof shingles, and roofing sealant. The following materials were sampled and found to be non-ACM: wall board, 2-foot by 4-foot ceiling tile, and wall plaster.

7.2.2 Radon Concentrations

The *Final Radon Report, AREE 67*, identified radon levels of 8.7 pCi/L and 17.10 pCi/L in an administrative office and in the basement of Building P-1 (Arthur D. Little, 1995a). Both levels exceed the EPA's annual action level of 4.0 pCi/L. Recommendations made in the AREE 67 Report include reevaluating the building and potentially undertaking mitigation efforts to reduce radon concentrations in the building.

The *Final Radon Report, AREE 67*, also identified radon levels of 5.6 pCi/L and 0.03 pCi/L in a hallway and kitchen of Building P-25 (Arthur D. Little, 1995a). The radon level of 5.6 pCi/L measured in the hallway exceeds the EPA's annual average action level of 4.0 pCi/L. Recommendations made in the AREE 67 Report include reevaluating the building and potentially undertaking mitigation efforts to reduce radon concentrations in the building.

7.2.3 Underground Storage Tanks

A 5,000-gallon, No. 2 fuel oil underground storage tank (UST) exists outside the boiler room at Building P-25. According to the *Fort Devens Underground Storage Tank Management Plan*, the estimated date of installation was 1966 (Fort Devens Environmental Management Office, 1994). There are no spill-containment, overfill-protection, or leak-detection mechanisms associated with the tank.

7.2.4 Storm Sewer System Number 23

Storm sewer system Number (No.) 23 is associated with the proposed lease parcel and the adjacent properties. System No. 23 collects runoff beginning on the east side of the Grant Housing area and includes runoff from Building P-22. The system discharges into Willow Brook, near the Verbeck Housing Area. There are no AOCs or SAs associated with System No. 23. No contamination was found in the system and there are no storm sewer discharge outfalls in the vicinity of the proposed lease parcel.

8.0 Relevant Information From Records Review, Interviews, and Aerial Photographs Review

Possible hazardous substances and petroleum product releases within the proposed lease parcel and adjacent properties were reviewed through a combination of the document reviews described in sections 3.2 and 3.3, and visual inspections and interviews described in sections 3.5 and 3.6. The hazardous substances and petroleum products management practices and potential impacts are mentioned in Section 7.0. The aerial photographs review is described in Section 3.4. No new AOCs were identified either within the proposed lease parcel or on adjacent properties as a result of the information review.

9.0 Ongoing Response Actions

There are no ongoing or completed response actions within or adjacent to the proposed lease parcel.

10.0 Recommendation as to Suitability to Lease

After an inspection of the proposed lease parcel and adjacent properties, a review of the documentation of adjacent properties, and a review of the anticipated activities within the proposed lease parcel, it is recommended that the parcel be found suitable to lease for the proposed activities. The results of the review of the documentation on adjacent properties did not identify any potential impacts on the proposed lease parcel. Within the proposed lease parcel, the only potential environmental concerns are ACM, lead-based paint, and radon. It is recommended that, in accordance with DoD guidance, a hazardous substance notice is needed because of the presence of asbestos, radon, and potential presence of lead-based paint on the proposed lease parcel.

11.0 Selected References

Arthur D. Little. 1994a. *Community Environmental Response Facilitation Act (CERFA) Report, Fort Devens Facility, Fort Devens, Massachusetts.* April.

Arthur D. Little. 1994b. *Final Storm Sewer System Evaluation Report (AREE 70) Base Realignment and Closure Environmental Evaluation (BRAC EE), Fort Devens, Massachusetts.* June.

Arthur D. Little. 1995a. *Final Radon Survey Report (AREE 67) Base Realignment and Closure Environmental Evaluation (BRAC EE), Part II Fort Devens, Massachusetts.* May.

Arthur D. Little. 1995b. *Final Asbestos Survey Report (AREE 65) Base Realignment and Closure Environmental Evaluation (BRAC EE), Part II Fort Devens, Massachusetts.* May.

ENSR Consulting and Engineering. 1993. *Historic Inventory Survey for Fort Devens, Massachusetts.*

Environmental Photographic Interpretation Center. 1991. *Installation Assessment, Fort Devens, Massachusetts.* September.

Federal Emergency Management Agency. 1982. *Flood Insurance Rate Map (FIRM), Ayer Floodplain Delineation.* July.

Fort Devens Environmental Management Office. 1994. *Fort Devens Underground Storage Tank Management Plan, Fort Devens, Massachusetts.* December.

Real Property Office. 1931. Real Property Office Records Cards for Fort Devens, Massachusetts.

Roy F. Weston, Inc. 1992. *Final Enhanced Preliminary Assessment, Fort Devens, Massachusetts.* April.

SEA Consultants. 1994. *Task 4, Draft Report for the Phase I Non-Residential Floor Drain Evaluation Study, Fort Devens, Massachusetts, Volume I.* February 23.

U.S. Army Corps of Engineers. 1993. *Historic Inventory Survey for Fort Devens, Massachusetts.* May.

12.0 Map References

General Layout Plan, June 1954, prepared by Office of Post Engineer, Fort Devens, MA.

Master Plan Fort Devens, General Road Map, August 1949, prepared by U.S. Engineers Office, Boston, MA.

USAEC. 1986 General Site Map. Fort Devens, MA. Scale 400:1.

War Department. 1919. General Map, Camp Devens, Massachusetts. Prepared by Construction Division, M&R Branch.

War Department. 1920. Property Map, Camp Devens, Massachusetts. Prepared by Construction Division. Scale 800:1.

Finding of Suitability to Lease (FOSL)

Fort Devens
(Proposed Lease Parcel, Building P-2)

Fort Devens, Massachusetts

November 1995

1.0 Purpose and Finding

a. The purpose of this FOSL is to document a decision made pursuant to Department of Defense (DoD) FOSL guidance that property is suitable to lease.

b. Based on results detailed in the Environmental Baseline Survey (EBS), I have determined that Building P-2 is suitable for lease to NYNEX for administrative and telecommunication services. The lease is for a period of seven years.

2. Property Description

The proposed lease parcel consists of Building P-2 and is located in the Main Post on the corner of Buena Vista Street and Balls Bluff Street. The building is approximately 4,344 square feet. Although the adjacent parking lot, located just north of Building P-2, is not included in the lease, NYNEX will have access to the parking lot.

Buena Vista Street runs along the southern border of the proposed lease parcel and Hornet Field is located across Buena Vista Street. Balls Bluff Street runs along the western border of Building P-2 with an unnamed, open field located across Balls Bluff Street. Directly north of Building P-2 is the building's parking lot and Building P-25 which is currently occupied by the Readiness Group Devens. East of Building P-2 is Building P-1, Post Headquarters, and its associated parking lot. Sherman Avenue is further east of Building P-1.

3. Environmental Condition of Property

An analysis of the environmental condition of the proposed lease parcel has been made by the U.S. Army Environmental Center (USAEC) in the form of an EBS for Building P-2. The EBS was conducted in accordance with the requirements of the DoD FOSL guidance for conducting an EBS.

Finding of Suitability to Lease (FOSL)

Fort Devens
(Proposed Lease Parcel, Building P-2)

The only environmental conditions of potential concern identified on the proposed lease parcel were asbestos-containing materials (ACM), lead-based paint (LBP), and radon. Fire door insulation and asphalt roof shingles were assumed to contain asbestos. Other suspect ACM sampled in Building P-2, after analysis, were found not to contain asbestos. Possible exposure to proposed lease parcel workers was determined to be minimal due to the location and condition of assumed ACM. Data on LBP does not exist for Building P-2, but due to the age of the building, there is a potential for LBP on interior and exterior surfaces. Possible threat to proposed lease parcel workers was determined to be minimal due to the condition of the paint. Children and adolescents will not occupy the proposed lease parcel. Radon concentrations above the U.S. Environmental Protection Agency's (EPA's) annual average action level of 4.0 picoCuries per liter (pCi/L) were identified from a sample taken in the basement of Building P-2. The radon concentration in the basement was 7.4 pCi/L.

Based upon the EBS and the references cited therein, the proposed lease parcel is suitable for lease for its intended purpose because although the property contains potentially hazardous materials, the materials are in good condition and therefore do not pose a risk to human health or the environment. In accordance with the DoD FOSL guidance and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 120(h), a hazardous substance notice will be given for the presence of radon and potential presence of asbestos and LBP.

Adjacent properties do not pose a risk to human health or the environment on the proposed lease parcel because although hazardous substances and/or petroleum products were stored for a year or more on adjacent properties, there is no evidence of a release or disposal of such substances. Adjacent properties include the parking lot just north of the proposed lease parcel.

3.1 Regulatory Comment

Regulatory agencies were notified at the initiation of the EBS and FOSL. Regulatory comments received during the development of these documents were reviewed and incorporated, as appropriate.

3.2 Lease Provisions

a. Hazardous substance or petroleum product notices, as provided in Section 3.0, will be given.

b. Provisions will be included in the lease to ensure that the requirements of Section IV (E) and (G) of the DoD FOSL policy are met.

c. The model lease provisions attached to the DoD FOSL policy will be included in the lease.

d. A notice will be given for the presence of radon and potential presence of asbestos and LBP within the proposed lease parcel. This notice will include a statement about the responsibilities of the lessee if the intended use of the proposed lease parcel changes to a residential property, school, or daycare center.

e. The Army shall have access to the property in any case in which a response action or corrective action is found to be necessary after the date of the property lease, or such access is necessary to carry out a response action or corrective action on adjacent property.

f. When the property is transferred, it will be transferred in accordance with Section 37 of the Fort Devens Federal Facility Agreement.

4.0 Conclusion

Based on the above information, I conclude that the DoD requirements to reach a Finding of Suitability to Lease have been met, and, therefore, this parcel, Building P-2, can be used by NYNEX pursuant to the proposed lease. The CERCLA 120(h) (l) notice requirements and the lease restrictions discussed above must be placed in the lease.

ARTHUR T. DEAN
Major General, USA
Deputy Chief of Staff for Personnel
and Installation Management

The Fraunhofer Environmental Baseline Survey and Comment Response Package is combined with the Robbins Pond Parcel.

Refer to the Robins Pond Environmental Baseline Survey.

Finding of Suitability to Lease (FOSL)

Fort Devens
(Fraunhofer Lease Parcel)

Fort Devens, Massachusetts

August 1995

1.0 Purpose and Finding

a. The purpose of this FOSL is to document a decision made pursuant to Department of Defense (DoD) FOSL guidance that property is suitable for lease.

b. Based on results detailed in the Environmental Baseline Survey (EBS), I have determined that the proposed Fraunhofer lease parcel is suitable to lease to the Massachusetts Government Land Bank for a period of 30 years to be used for administrative and business purposes.

2.0 Property Description

The proposed Fraunhofer parcel consists of approximately 3.5 acres. The parcel is located on the Main Post between Access Road II and Dakota Street. Historically, the area contained World War II era wooden buildings. The parcel currently consists of open playing fields.

3.0 Environmental Condition of the Property

An analysis of the environmental conditions of the site proposed for lease has been made by the U.S. Army Environmental Center in the form of an EBS for the Fraunhofer parcel. The EBS was conducted in accordance with the requirements of the DoD FOSL guidance for conducting an EBS.

There are no environmental conditions of potential concern identified within the proposed lease parcel. Based upon the EBS and the references cited therein, the proposed parcel is suitable for lease for its intended purpose. Hazardous substances and petroleum products were not stored on the parcel and there is no evidence of a release or disposal of such substances on the property. Therefore, a hazardous substance notice is not required for the proposed Fraunhofer lease parcel.

Adjacent properties do not pose a risk to human health or the environment on the proposed lease parcel because although hazardous substances and/or petroleum products

were stored for a year or more on adjacent properties, there is no evidence of a release or disposal of such substances on the proposed lease parcel.

4.0 Regulatory Comment

Regulatory agencies were notified at the initiation of the EBS and the FOSL. Regulatory comments received during the development of these documents were reviewed and incorporated as appropriate.

5.0 Lease Provisions

a. Provisions will be included in the lease to ensure that the requirements of Section IV (E) and (G) of the DoD FOSL Policy are met.

b. The model lease provisions attached to the DoD FOSL Policy will be included in lease.

c. The Army shall have access to the property in any case in which a response action or corrective action is found to be necessary after the date of property lease, or if such access is necessary to carry out a response action or corrective action on adjacent property.

d. This property will be transferred in accordance with proposed Section 37 of the Fort Devens Federal Facility Agreement.

6.0 Conclusion

Based on the above information, I conclude that the DoD requirements to reach a FOSL have been met and therefore, the Fraunhofer lease parcel can be used pursuant to the proposed lease. The CERCLA 120 (h) (1) notice requirements and the lease restrictions discussed above must be placed in the lease.

FRANK R. FINCH
Colonel, GS
Director, Environmental Programs

Final

Environmental Baseline Survey for Proposed Lease Parcel Building 2602

Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts

Prepared for:

U.S. ARMY ENVIRONMENTAL CENTER
ABERDEEN PROVING GROUND, MARYLAND 21010

Prepared by:

ARTHUR D. LITTLE, INC.
25 Acorn Park
Cambridge, Massachusetts 02140-2390

Requests for this document must be referred to:
Commander, U.S. Army Environmental Center
Aberdeen Proving Ground, Maryland 21010

July 1995

AEC Form 45, 1 Feb 93 replaces THAMA Form 45 which is obsolete.

Final

Arthur D Little

Environmental Baseline Survey for Proposed Lease Parcel Building 2602

Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, MA

R N Lambe 7-13-95
Program Manager, Robert Lambe Date

Richard Waterman 7-13-95
Task Manager, Richard Waterman Date

Submitted to

U.S. Army Environmental Center (USAEC)
Aberdeen Proving Ground, Maryland

Revision 1
July 1995

Arthur D. Little, Inc.
Acorn Park
Cambridge, Massachusetts
02140-2390

ADL Reference 67073-21

DAAA15-91-D-0016
Delivery Order 0013

This document is printed on recycled paper and is recyclable.

Table of Contents

Acronyms and Abbreviations iii

Executive Summary iv

1.0 Introduction 1-1

2.0 Site Description 2-1
2.1 Proposed Lease Parcel 2-1
2.2 Adjacent Properties 2-1

3.0 Survey Methodology 3-1
3.1 Review of the Community Environmental Response Facilitation Act 3-1
3.2 Records Search - Lease Parcel 3-1
3.3 Records Search - Adjacent Properties 3-2
3.4 Aerial Photographs Review 3-3
3.5 Interviews 3-3
3.6 Visual Inspections 3-3
3.7 Identification of Sources of Contamination on Adjacent Properties 3-4
3.8 Ongoing Response Actions 3-4
3.9 Physical Inspections - Adjacent Properties 3-4
3.10 Sampling 3-4

4.0 Relevant Information Gained During Records Search 4-1

5.0 Title Search 5-1

6.0 Description of Activities 6-1
6.1 Proposed Lease Parcel 6-1
6.2 Adjacent Properties 6-1

7.0 Hazardous Substances and Petroleum Products Management Practices and Potential Impacts 7-1
7.1 Proposed Lease Parcel 7-1
7.1.1 AREE 63AC, Previously Removed 1,000-gallon No. 2 Fuel Oil UST 7-1
7.1.2 AREE 65, Asbestos Survey 7-1
7.1.3 Existing Underground Storage Tanks 7-1
7.1.4 Floor Drains 7-2

7.2 Adjacent Properties 7-2
7.2.1 AREE 69B, Historical Fuel Oil Spill 7-2
7.2.2 AREE 63Q, Previously Removed 1,000-gallon No. 2 Fuel Oil Underground Storage Tank 7-3
7.2.3 AREE 63AG, Previously Removed 1,000-gallon No. 2 Fuel Oil Underground Storage Tank 7-3
7.2.4 AREE 63AI, Previously Removed 1,000-gallon No. 2 Fuel Oil Underground Storage Tank 7-3
7.2.5 AREE 63AJ, Previously Removed 1,000-gallon No. 2 Fuel Oil Underground Storage Tank 7-3

8.0 Relevant Information From Records Review, Interviews, and Aerial Photographs Review 8-1

9.0 Ongoing Response Actions 9-1
9.1 Proposed Lease Parcel 9-1
9.2 Adjacent Properties 9-1

10.0 Recommendation as to Suitability to Lease 10-1

11.0 Selected References 11-1

12.0 Selected Map and Photo References 12-1

List of Figures

Figure 1: Proposed Lease Parcel, Building 2602 2-2

Acronyms and Abbreviations

ACM	Asbestos-Containing Material
AOC	Areas of Contamination
AREE	Area Requiring Environmental Evaluation
BNA	Base/Neutral/Acid
BRAC	Base Realignment and Closure
BRAC EE	Base Realignment and Closure Environmental Evaluation
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERFA	Community Environmental Response Facilitation Act
DoD	Department of Defense
EBS	Environmental Baseline Survey
EMO	Environmental Management Office
EPA	Environmental Protection Agency
EPIC	Environmental Photographic Interpretation Center
FOSL	Finding of Suitability to Lease
LBP	Lead-Based Paint
MADEP	Massachusetts Department of Environmental Protection
MCP	Massachusetts Contingency Plan
NED	New England Division of the U.S. Army Corps of Engineers
PCB	Polychlorinated Biphenyl
SA	Study Areas
TPHC	Total Petroleum Hydrocarbons
USACE	U.S. Army Corps of Engineers
USAEC	U.S. Army Environmental Center
UST	Underground Storage Tank
VOC	Volatile Organic Compound
Zecco	Zecco, Inc., Engineering Division

Executive Summary

An Environmental Baseline Survey (EBS) was undertaken to make a determination of the suitability to lease Building 2602 at Fort Devens to the Massachusetts Government Landbank for a period of one year. Building 2602 is located in the southwestern corner of the Main Post, between St. Barbara Street and Lake George Street. Building 2602 was built in 1989 for use as administrative and academic offices for the U.S. Army Intelligence School.

The EBS followed protocols outlined in the current Department of Defense (DoD) guidance on the environmental review process for a lease action of real property at Base Realignment and Closure (BRAC) Installations. This process includes a records review of aerial photographs, and a physical inspection of the proposed lease property and adjacent properties. Specific sampling activities did not occur within the proposed lease parcel, but sampling activities occurred on adjacent properties for various BRAC Environmental Evaluation (BRAC EE) and Comprehensive Environmental Response, Compensation, and Liability Act studies.

A potential environmental concern identified on the proposed lease parcel was asbestos. Building 2602 was surveyed for asbestos, but was not sampled. During the asbestos survey, inspectors identified a number of potential asbestos-containing materials (ACM) including ceiling tiles, plaster board with joint compound, floor tile, sprayed-on fire proofing, and generator exhaust pipe insulation. The building was not sampled for lead-based paint (LBP), and due to the age of the building, the potential may be minimal. The building was also not tested for radon. The historical search conducted for the Industrial Radiation Survey did not identify Building 2602 as a potential source of radiation contamination. Potential environmental concerns identified at adjacent properties include previously removed underground storage tanks (USTs) and unexploded ordnance.

According to the Community Environmental Response Facilitation Act (CERFA) the proposed lease parcel is classified as CERFA-disqualified. This parcel is disqualified due to two 12,000-gallon No. 2 fuel oil USTs, a previously removed UST, and a fuel oil spill. The USTs are currently managed by the Fort Devens Environmental Management Office.

Based upon the above-stated factors, the proposed lease parcel is recommended for classification as suitable for lease. In accordance with the DoD guidance, a hazardous substance notice is needed because petroleum products were stored for a year or more, or known to have been released, transferred, or disposed of on the proposed lease parcel. Petroleum products are currently stored in two 12,000-gallon fuel oil USTs and historically were stored in a 1,000-gallon No. 2 fuel oil UST. A hazardous substances notice should also be issued for the potential presence of asbestos and LBP within the lease parcel.

1.0 Introduction

This Environmental Baseline Survey (EBS) is being undertaken in accordance with the current Department of Defense (DoD) guidance in order to make a determination of the suitability to lease Building 2602 at Fort Devens, Massachusetts to the Massachusetts Government Landbank (Landbank) for a one-year period. The proposed lease parcel consists of Building 2602. The lessee will have access to the adjacent parking lot.

2.0 Site Description

2.1 Proposed Lease Parcel

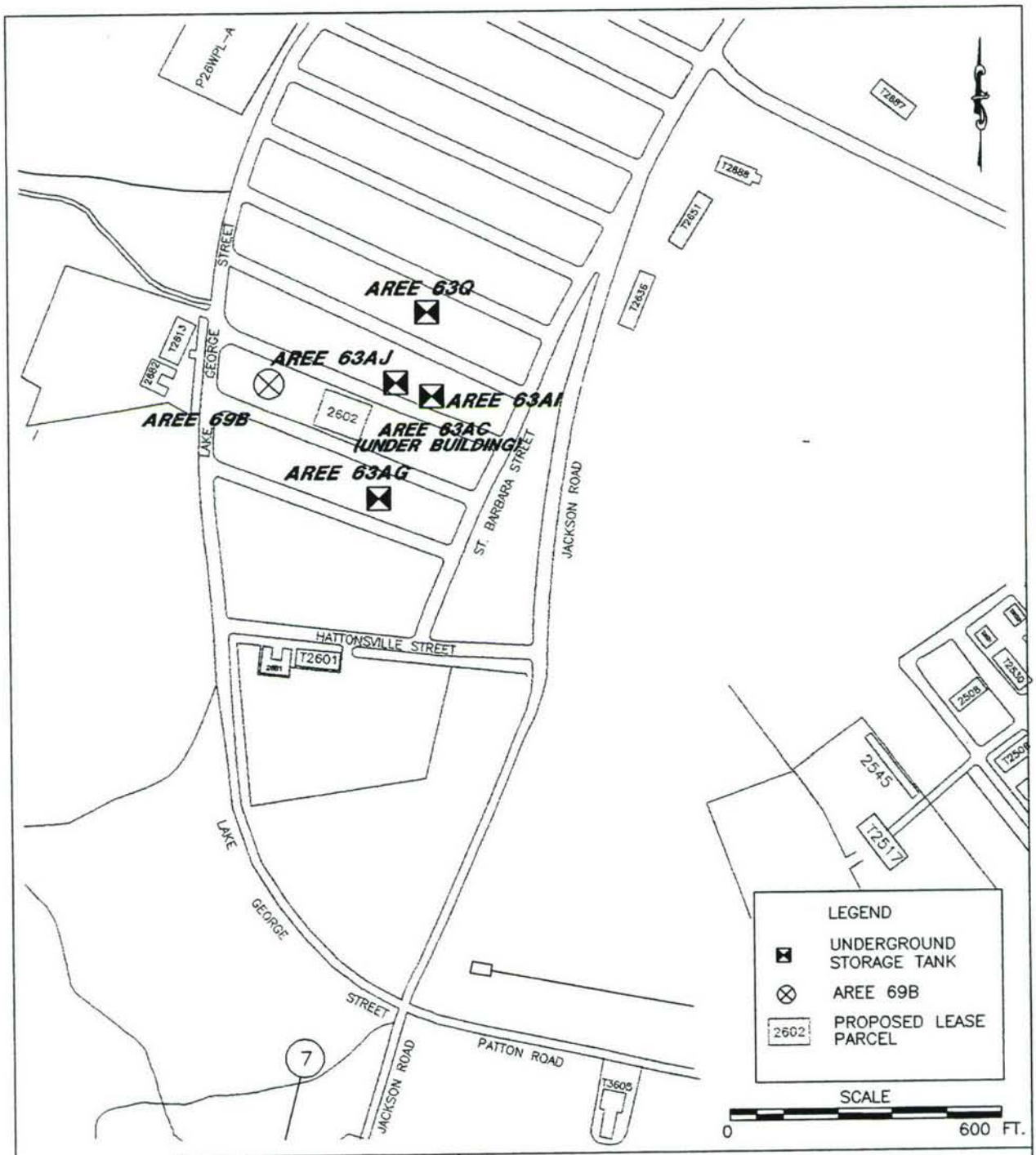
The proposed lease parcel consists only of Building 2602 and does not include the surrounding land or the adjacent parking lots. Building 2602 is located between Jackson Road and Lake George Street in the southwest corner of the Main Post. This property is situated within the town of Harvard. Building 2602 was constructed in 1989.

In 1917, the property where Building 2602 is currently located was occupied by an Army hospital. The hospital buildings located on the proposed lease parcel included: 1137, 1140, 1139, 1931, 1932, 1933, 1934, 1935, and 1936. The hospital was heated by a central coal-fired furnace (War Department, 1919; ENSR Consulting and Engineering, 1993).

During World War II the proposed lease parcel, including adjacent properties, was occupied by barracks and mess halls. Barracks were first heated with coal and during the late 1950s or early 1960s they were converted to oil. The buildings not heated by oil were heated by natural gas (ENSR Consulting and Engineering, 1994). The buildings that occupied the areas of the proposed lease parcel include historical building numbers: 2602, 2603, 2604, 2605, 2607, 2608, 2609, 2610, 2612, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622. Of these former buildings, nine had underground storage tanks (USTs). The nine buildings were: 2602, 2603, 2604, 2605, 2606, 2608, 2618, 2619, and 2621. The USTs contained No. 2 fuel oil and were removed by Zecco, Inc., Engineering Division (Zecco) in December 1987 (Arthur D. Little, 1995c). All nine previously removed USTs were recommended for no further action. Barracks in the parcel area were demolished in December 1987. Figure 1 illustrates the proposed lease parcel.

2.2 Adjacent Properties

The Nashua River is approximately 2,400 feet west of the proposed lease parcel, running parallel to Lake George Street. The land on both sides of the river is forested. The forest runs upslope about 100 to 150 feet from the Nashua River, toward Lake George Street. Buildings on adjacent properties include 2682 and 2613, which are directly west of the proposed lease parcel on the opposite side of Lake George Street, and Buildings 2601 and 2681, which are two blocks south of the proposed lease parcel on Hattonsville Street. The next closest set of buildings are 2636, 2651, and 2688, which are approximately 1,200 feet north of the proposed lease parcel on Jackson Road. From 1941 to 1987 the blocks between Hattonsville Street and Givry Street supported a network of wooden barracks known as the 2600 Area. From 1987 to 1993 buildings within the 2600 Area were demolished (ENSR Consulting and Engineering, 1994).



Arthur D Little		TITLE: FIGURE 1 PROPOSED TRANSFER PARCEL FOR BUILDING 2602 AND ADJACENT PROPERTIES FORT DEVENS, MASSACHUSETTS	
APPROVALS	DATE		
DRAWN		PREPARED FOR: USAEC	SCALE: 1 IN. = 300 FT.
CHECKED			
QA/CONTROL		DATE: APRIL 1995	DWG. NO.: 67073-005
TECH REVIEW			
PROJ MNGR		SOURCE: ADL	SHEET 1 OF 1

3.0 Survey Methodology

This EBS was conducted in accordance with Department of Defense (DoD) guidance and consisted of the following methodologies.

3.1 Review of the Community Environmental Response Facilitation Act

The Final Community Environmental Response Facilitation Act (CERFA) Report (Arthur D. Little, 1994) was reviewed as part of the EBS. The CERFA Report identified property on Fort Devens that offers the greatest opportunity for immediate reuse and development. As part of the CERFA process, property where no Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-regulated hazardous substances or petroleum products were stored, released, or disposed was identified. Other non-CERCLA hazardous materials that were identified include: asbestos, radon, polychlorinated biphenyls (PCBs), and lead-based paint (LBP). At the close of the evaluation, four types of CERCLA parcels were identified: a CERFA clean parcel, a CERFA parcel with qualifier, a CERFA-disqualified parcel, and a CERFA-excluded parcel.

The proposed lease parcel, Building 2602, is classified as a CERFA-disqualified parcel because it contains petroleum products and potential non-CERCLA hazardous materials such as asbestos and LBP.

Building 2602 was surveyed, but not sampled for asbestos. During the asbestos survey, inspectors identified a number of potential asbestos-containing materials (ACM) including ceiling tiles, plaster board with joint compound, floor tile, sprayed-on fire proofing, and generator exhaust pipe insulation (Arthur D. Little, 1995b). The building was not inspected for LBP or radon. Two 12,000-gallon No. 2 fuel oil USTs exist outside Building 2602. The tanks were installed in 1989.

3.2 Records Search - Lease Parcel

The records search consisted of a review of all environmental reports that studied the proposed lease parcel. The records included:

- *Industrial Radiation Survey Historical Data Review* (U.S. Army Center for Health Promotion and Preventative Medicine, 1995)
- *Detailed Flow Model for Main and North Post, Fort Devens, Mass.* (Engineering Technologies Associates, 1994)
- *Historical Inventory Survey for Fort Devens, Mass.* (ENSR Consulting and Engineering, 1993)

- *Draft Environmental Impact Statement, Fort Devens, Mass., Disposal and Reuse* (ENSR Consulting and Engineering, 1994)
- *Fort Devens Underground Storage Tank Management Plan, Fort Devens, Mass.* (Fort Devens EMO, 1994)
- *Non-Residential Floor Drain Evaluation Study, Volumes I and II, Fort Devens, Mass.* (SEA Consultants, 1994)
- *Final Past Spill Sites Report (AREE 69)* (Arthur D. Little, 1995d)
- *Final Previously Removed Underground Storage Tank (AREE 63) Report* (Arthur D. Little, 1995c)
- *Community Environmental Response Facilitation Act (CERFA) Report, Fort Devens Facility, Fort Devens, Mass.* (Arthur D. Little, 1994)
- *Final Radon Survey Report (AREE 67)* (Arthur D. Little, 1995a)
- *Draft Asbestos Survey Report (AREE 65)* (Arthur D. Little, 1995b)
- *Enhanced Preliminary Assessment, Fort Devens, Mass.* (Roy F. Weston, 1992)
- *U.S. DoD BRAC Ordnance, Ammunition, and Explosives Archives Search Report, Fort Devens, Mass.* (U.S. Army Corps of Engineers [USACE], 1995)

3.3 Records Search - Adjacent Properties

The records search for the adjacent properties consisted of a review of records pertaining to Study Areas (SAs), Areas Of Contamination (AOCs), or Areas Requiring Environmental Evaluation (AREEs) that may have affected the lease parcel. The records included:

- *Detailed Flow Model for Main and North Post, Fort Devens, Mass.* (Engineering Technologies Associates, 1994)
- *Historical Inventory Survey for Fort Devens, Mass.* (ENSR Consulting and Engineering, 1993)
- *Draft Environmental Impact Statement, Fort Devens, Mass., Disposal and Reuse* (ENSR Consulting and Engineering, 1994)
- *Fort Devens Underground Storage Tank Management Plan* (Fort Devens EMO, 1994)
- *Final Previously Removed Underground Storage Tank (AREE 63) Report* (Arthur D. Little, 1995c)
- *Community Environmental Response Facilitation Act (CERFA) Report, Fort Devens Facility, Fort Devens, Mass.* (Arthur D. Little, 1994)
- *Enhanced Preliminary Assessment, Fort Devens, Mass.* (Roy F. Weston, 1992)
- *U.S. DoD BRAC Ordnance, Ammunition, and Explosives Archives Search Report, Fort Devens, Mass.* (USACE, 1995)

3.4 Aerial Photographs Review

The aerial photograph review for all of Fort Devens, including the proposed lease parcel and adjacent properties, was conducted by the Environmental Photographic Interpretation Center (EPIC, 1991). These photographs were analyzed in coordination with maps of the same period. The maps were obtained from Fort Deven's Master Planning Office.

From 1941 to the 1980s, the block that the current Building 2602 resides on was occupied by six temporary buildings, including former Building 2602. Aerial photographs illustrate that the block went unchanged until just prior to 1980, when Building 2609 was demolished. The remaining five buildings, 2602, 2610, 2612, 2614, and 2615, were demolished in 1987. The new Building 2602 was constructed in 1989 and first appears in the 1991 aerial photograph.

3.5 Interviews

Interviews with current employees were conducted in October and November 1993 as part of the AREE 61 and 69 portions of the Base Realignment and Closure Environmental Evaluation (BRAC EE) and CERFA investigations.

3.6 Visual Inspections

Visual inspections of the proposed lease parcel were conducted as part of the CERFA, AREE 69, and asbestos investigations. The CERFA inspections took place during the summer of 1993 while the AREE 69 and asbestos inspections took place in 1994.

3.7 Identification of Sources of Contamination on Adjacent Properties

After a review of the various studies identified in Section 3.3, five potential sources of contamination were identified on adjacent properties, and they are listed in the table below.

Site	Description
AREE 63 Q	UST Removal at 2626
AREE 63 AG	UST Removal at 2606
AREE 63 AI	UST Removal at 2618
AREE 63 AJ	UST Removal at 2619
AREE 69 B	UST overfill at new Building 2602

3.8 Ongoing Response Actions

Currently only one site adjacent to the proposed lease parcel is undergoing an investigation. AREE 69B, a spill site located outside of Building 2602, is undergoing further ground water monitoring and tank evaluations to test the integrity of the UST (Arthur D. Little, 1994d).

3.9 Physical Inspections - Adjacent Properties

Physical inspections of the properties adjacent to the proposed lease parcel were conducted during the AREE 69 and AREE 61 studies in July 1993 and during the AREE 63 investigations in March 1994.

3.10 Sampling

Sampling activities occurred for the fuel spill at AREE 69B and for the removal of the USTs from the barracks at AREEs 63Q, 63AC, 63AG, 63AI, and 63AJ.

4.0 Relevant Information Gained During Records Search

The records search is described in Sections 3.2 and 3.3. Environmental concerns associated with the areas identified are discussed in Section 7.

Building 2602 was surveyed, but not sampled, for asbestos. The survey identified many suspect ACM in Building 2602. The building was not tested for radon or LBP (Arthur D. Little, 1995b). Building 2602 has a total of 21 floor drains on four floors, all of which were found to be noncontaminated. Building 2602 has two existing 12,000-gallon No. 2 fuel oil USTs, located at the southwestern corner of the building.

AREE 63AC is located on the proposed lease parcel. AREE 63AC was a UST associated with an historical barrack building known as Building 2602. Soil was excavated after the tank's removal and additional soil was removed during the installation of the foundation of the existing Building 2602. Any residual contamination from the former UST was removed during the installation of the foundation for Building 2602.

Adjacent properties identified during the records search included AREE 63Q, AREE 63AG, AREE 63AI, AREE 63AJ, and AREE 69B. The AREE 63 sites were previously removed USTs that were recommended for further action (Arthur D. Little, 1995c). The AREE 69B site is a spill site located on the west side of the proposed lease parcel.

5.0 Title Search

The property within the proposed lease parcel was acquired by the U.S. Army in 1919. Previously, this land was privately owned by residents of Harvard, Massachusetts. Maps displaying tracts of land acquired by the Army and the dates of acquisition are presented in the CERFA Report (Arthur D. Little, 1994).

6.0 Description of Activities

6.1 Proposed Lease Parcel

The proposed lease parcel consists of Building 2602 and does not include the land surrounding the building or the parking lots in front and behind the building. Building 2602 is located between Jackson Road and Lake George Street, across the street from Buildings 2613 and 2682. Building 2602 was constructed in 1989 as part of the U.S. Army Intelligence School and has been used for administrative and academic purposes for the past six years. Prior to the construction of Building 2602, wooden barracks occupied the site until their removal in 1987.

This lease property had a previously removed 1,000-gallon UST associated with the former barrack Building 2602, and currently has two 12,000-gallon No. 2 fuel oil USTs located at the southwestern corner of the new Building 2602.

6.2 Adjacent Properties

The property surrounding the proposed lease parcel was historically occupied by wooden barracks. The barracks were removed between 1987 and 1993. Numerous USTs were associated with these barracks, all of which have subsequently been removed. Currently, the land has grass cover or is paved with asphalt, and there are a few remaining wooden buildings on the outskirts of the proposed parcel.

7.0 Hazardous Substances and Petroleum Products Management Practices and Potential Impacts

The management practices of hazardous substances and petroleum products within and adjacent to the proposed lease parcel for Building 2602 were evaluated as part of this EBS. The results are summarized below.

7.1 Proposed Lease Parcel

Potential environmental impacts on the proposed lease parcel include petroleum storage, a previously removed UST, and asbestos. A brief summary of these areas of environmental concern are discussed below.

7.1.1 AREE 63AC, Previously Removed 1,000-gallon No. 2 Fuel Oil UST

The historical UST at AREE 63AC was associated with a former barrack, Building 2602, that was demolished in 1987. The UST contained 1,000 gallons of No. 2 fuel oil. The tank excavation is located in the center of the footprint of the new Building 2602.

The excavation site from the tank removal was contaminated with hydrocarbons. The soil hydrocarbon concentrations exceed the 500 ppm total petroleum hydrocarbons (TPHC) concentration limit set by the Massachusetts Department of Environmental Protection (MADEP). Ground water at this site was also contaminated with petroleum hydrocarbons.

Although a majority of contaminated soil was excavated following the tank removal, residual contamination remained after the removal. As a result, during the installation of the foundation of Building 2602 all residual contamination from the former UST was removed. A no further action decision was issued for the area (Arthur D. Little, 1995c).

7.1.2 AREE 65, Asbestos Survey

Due to the age of Building 2602, the building was surveyed, but not sampled, for asbestos. During the survey, assumed ACM was identified, including: ceiling tiles, plaster board with joint compound, floor tile, sprayed-on fire proofing, and generator exhaust-pipe insulation (Arthur D. Little, 1995b).

7.1.3 Existing Underground Storage Tanks

Currently, there are two 12,000-gallon No. 2 fuel oil USTs associated with Building 2602. The tanks were installed in 1989 at the southwestern corner of the building (Fort Devens EMO, 1994).

7.1.4 Floor Drains

Building 2602 has a total of 21 floor drains on four floors, all of which drain into the sanitary sewer system. There are no reported problems with the drains in this building (SEA Consultants, 1994).

7.2 Adjacent Properties

A brief summary of adjacent properties that may have a potential impact on the proposed lease parcel as a result of hazardous substance and petroleum product management follows.

7.2.1 AREE 69B, Historical Fuel Oil Spill

On October 30, 1990, a 10,000-gallon No. 2 fuel oil tank located in the southwest corner of Building 2602 was overfilled resulting in a 2,650-gallon oil spill. The spill traveled overland, westward, toward Lake George Street, and allegedly did not cross Lake George Street.

The spill was reported to the MADEP and the U.S. Environmental Protection Agency (EPA) on October 30, 1990. MADEP issued a Notice of Responsibility to Fort Devens for the spill. Cleanup response included sampling existing monitoring wells, which tested negative for TPHC and volatile organic compounds (VOCs). Contaminated soil was excavated, and the remaining soil was tested to verify that all contamination had been removed. Ground water samples taken from the soil excavation pit were slightly contaminated with TPHC, having a concentration of 2.8 ppm. The site was backfilled with noncontaminated soil.

During the soil excavation one of three existing monitoring wells was severely damaged, allowing for product to flow into the well. As a result, three new monitoring wells were installed around the site.

Further evaluation of the site indicated that the spill site does not contain contaminated soil. As a result, the site was recommended for no further action in terms of soil removal. However, additional ground water monitoring was recommended by the MADEP. The monitoring wells at this site will be sampled for two additional quarters for TPHC, Base/Neutral/Acid (BNA) extractions, and VOCs to determine fluctuations. Furthermore, monitoring records, including tank inventory and leak testing records for the tank will be inspected to evaluate the integrity of the UST and associated piping (Arthur D. Little, 1995d).

7.2.2 AREE 63Q, Previously Removed 1,000-gallon No. 2 Fuel Oil Underground Storage Tank

The 1,000-gallon No. 2 fuel oil UST associated with Building 2626 was removed by Franklin Environmental in 1990. Residual contamination of soil and ground water was identified in subsequent record reviews. The UST was removed from the site on September 29, 1994 by OHM Remediation Services (1995). AREE 63Q has been recommended for no further action (Arthur D. Little, 1995c).

7.2.3 AREE 63AG, Previously Removed 1,000-gallon No. 2 Fuel Oil Underground Storage Tank

AREE 63AG is the location of a previously removed, 1,000-gallon No. 2 fuel oil UST. This tank was adjacent to the southwestern corner of former barrack Building 2606. All of the buildings associated with the tank have been razed. The tank was removed by Zecco in December 1987, and a remedial investigation was performed in January 1988. Contaminated soil extended from 8.5 to 10 feet below grade and extended laterally about 45 feet east to west and 20 feet north to south. An unknown amount of soil was removed during the initial remedial investigation.

Subsequent screening at AREE 63AG found TPHC concentrations were below the Massachusetts Contingency Plan (MCP) standards. As a result, the site was recommended for no further action (Arthur D. Little, 1995c).

7.2.4 AREE 63AI, Previously Removed 1,000-gallon No. 2 Fuel Oil Underground Storage Tank

This is the site of a previously removed, 1,000-gallon No. 2 fuel oil UST located adjacent to Building 2618. The tank was removed by Zecco in 1987 and a remedial investigation occurred in 1988.

An investigation of the site's ground water and soil indicated that there was no contamination exceeding MCP standards for TPHC. As a result, AREE 63AI was recommended for no further action (Arthur D. Little, 1995c).

7.2.5 AREE 63AJ, Previously Removed 1,000-gallon No. 2 Fuel Oil Underground Storage Tank

AREE 63AJ is the site of a previously removed, 1,000-gallon No. 2 fuel oil UST located adjacent to the northeastern corner of the existing Building 2602. The UST was removed in 1987 by Zecco and a remedial excavation occurred in 1988 to remove contaminated soil. Contamination of the soil was observed below grade and extended laterally in all directions. Ground water was also intercepted during the tank excavation.

An additional investigation to determine if soil and ground water were contaminated with petroleum products did not indicate compounds at concentrations above the MCP standards. As a result, the site was recommended for no further action (Arthur D. Little, 1995c).

8.0 Relevant Information From Records Review, Interviews, and Aerial Photographs Review

The purpose of this report is to identify all locations within the proposed lease parcel that may have been impacted in the past by releases of hazardous substances or petroleum products. A review of all available information regarding these releases has been conducted, and the results presented in previous sections. The results are primarily a summary of releases, or potential releases, identified in previously written documents. No interviews were conducted specifically for this document. No locations of potential releases subsequent to those identified in previous studies have been identified.

9.0 Ongoing Response Actions

9.1 Proposed Lease Parcel

There are no ongoing or completed response actions within the proposed lease parcel.

9.2 Adjacent Properties

Analytical results from the ground water samples taken at AREE 69B indicated the presence of TPHC contamination in wells near the existing UST at Building 2602. As a result, it was recommended that the monitoring wells at the site be sampled for two additional quarters to identify any fluctuations in TPHC concentration. Furthermore, monitoring records, including tank inventory and leak testing records for the existing 10,000-gallon fuel oil UST will be inspected to evaluate the integrity of the UST and associated piping (Arthur D. Little, 1994).

AREE 69B, an historical spill on property adjacent to the proposed lease parcel, is undergoing a response action.

10.0 Recommendation as to Suitability to Lease

After an inspection of the proposed lease parcel and adjacent areas, and a review of documentation of adjacent areas, as well as a review of the anticipated activities within the proposed lease parcel, it is recommended that the parcel be found suitable to lease for the proposed activities. The results of the review of the documentation on adjacent areas are presented above. Within the building, there is potential threat of asbestos, however, hazards are minimized because the building is of new construction. Furthermore, the building is used for administrative purposes, if the building is reused as a school or daycare center where children will be present, the lessor should have the building sampled for LBP.

It is recommended that, in accordance with DoD guidance, a hazardous substance notice is needed, because hazardous substances or petroleum products were stored for one year or more, known to have been released, treated, or disposed of on the proposed lease parcel. The hazardous notice should be issued due to the fuel oil USTs located outside Building 2602, the previously removed UST from former Building 2602, and the fuel oil spill that occurred outside Building 2602. A notice should also be dispensed for the presence of asbestos and potential presence of LBP on the lease parcel.

11.0 Selected References

Arthur D. Little. 1994. *Community Environmental Response Facilitation Act (CERFA) Report, Fort Devens Facility, Fort Devens, MA.* April.

Arthur D. Little. 1995a. *Final Radon Survey Report (AREE 67) Base Realignment and Closure Environmental Evaluation (BRAC EE) Part II Fort Devens, Massachusetts.* May.

Arthur D. Little. 1995b. *Final Asbestos Survey Report (AREE 65) Base Realignment and Closure Environmental Evaluation (BRAC EE) Part II Fort Devens, MA.* May.

Arthur D. Little. 1995c. *Final Previously Removed Underground Storage Tank (AREE 63) Report, Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, MA.* June.

Arthur D. Little. 1995d. *Final Past Spill Sites Report (AREE 69) Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts.* June.

Chambers, J. 1995. Fax to Carolyn Mayer of Arthur D. Little. April 7.

Engineering Technologies Associates, Inc. 1994. *Detailed Flow Model for Main and North Post, Fort Devens, Massachusetts*, Volumes I and II. September.

ENSR Consulting and Engineering. 1993. *Historical Inventory Survey for Fort Devens, Massachusetts.* May.

ENSR Consulting and Engineering. 1994. *Draft Environmental Impact Statement, Fort Devens, Massachusetts, Disposal and Reuse.* September.

Fort Devens Base Realignment and Closure Office. 1995. *Record of Availability, AR 405-80, Fort Devens, MA*, March.

Fort Devens Environmental Management Office. 1994. *Fort Devens Underground Storage Tank Management Plan, Fort Devens, MA.* December.

OHM Remedial Services Corp. 1995. *Draft Final Closure Report for UST 2627, Fort Devens, MA.* March 29.

Roy F. Weston, Inc. 1992. *Enhanced Preliminary Assessment - Delivery Order 9, Fort Devens, Massachusetts.* April.

SEA Consultants. 1994. *Non-Residential Floor Drain Evaluation Study, Volumes I and II, Fort Devens, Massachusetts*. February.

U.S. Army Center for Health Promotion and Preventative Medicine. 1995. *Industrial Radiation Survey Historical Data Review*. Not yet published.

U.S. Army Corps of Engineers. 1995. *U.S. DoD BRAC Ordnance, Ammunition, and Explosives Archives Search Report, Fort Devens, Massachusetts*. May.

12.0 Selected Map and Photo References

Environmental Photographic Interpretation Center. 1991. *Installation Assessment, Fort Devens, Ayer, MA, Volume II.* September.

Fort Devens Office of the Quartermaster General. 1941. *Fort Devens Base Map.* Construction Division. December 15.

Fort Devens Post Engineers. 1954. *General Layout Plan of Fort Devens.* June.

Fort Devens Range Control. 1961. *Range and Training Areas, Fort Devens.* January.

Fort Devens Range Control. 1967. *Ranges and Training Areas, Fort Devens.* April 20.

U.S. Army Corps of Engineers. 1962. *General Road and Railroad Map.* New England Division. May.

War Department. 1919. *Camp Devens General Map.* Construction Division, M&R Branch. April.

War Department. 1920. *Camp Devens Property Map.* E.I. McLaughlin, Construction Division, Washington, D.C. June 16.

Finding of Suitability to Lease (FOSL)

Fort Devens
(Building 2602)

Fort Devens, Massachusetts

August 1995

1.0 Purpose and Finding

a. The purpose of this FOSL is to document a decision made pursuant to Department of Defense (DoD) FOSL guidance that property is suitable to lease.

b. Based on results detailed in the Environmental Baseline Survey (EBS), I have determined that Building 2602 is suitable for lease to the Massachusetts Government Land Bank for administrative and academic purposes. The lease is for a period of five years.

2.0 Property Description

The proposed lease parcel consists of Building 2602 and is located in the southwestern corner of the Main Post, between Jackson Road and Lake George Street. The building, constructed in 1989, is approximately 113,000 square feet. Although the adjacent parking lot, located just south of Building 2602, is not included in the lease, the lessee will have access to the parking lot.

The Nashua River is approximately 2,400 feet west of the proposed lease parcel, running parallel to Lake George Street. Buildings directly west of the proposed parcel on Lake George Street include Buildings 2613 and 2682. Directly south of Building 2602 are Buildings 2601 and 2681, located on Hattonsville Street. St. Barbara Street and Jackson Road are located directly east of the parcel and open grassland is located directly north of the proposed lease parcel.

3.0 Environmental Condition of Property

An analysis of the environmental condition of the site proposed for lease has been made by the U.S. Army Environmental Center in the form of an EBS for Building 2602. The EBS was conducted in accordance with the requirements of the DoD FOSL guidance for conducting an EBS.

Finding of Suitability to Lease (FOSL)

Fort Devens
(Building 2602)

The only environmental conditions of potential concern identified on the proposed lease parcel were asbestos-containing material (ACM), the presence of underground storage tanks (USTs) and an adjacent historical spill location. The building was surveyed for asbestos, but due to the age of the building and at the request of Fort Devens' personnel, suspect material was not sampled. Suspect ACM identified included: ceiling tiles, plaster board with joint compound, floor tile, sprayed-on fire proofing, and pipe insulation. Possible exposure to proposed lease parcel workers was determined minimal due to the location and condition of assumed ACM. Since this building will not be used as residential housing, it was not surveyed for lead-based paint (LBP). Possible threat to proposed lease parcel workers was determined to be minimal due to the condition of the paint, and the date of construction of the building. Two 12,000-gallon No. 2 fuel oil USTs exist outside Building 2602. The tanks were installed in 1989. An historical spill of No. 2 fuel oil occurred on property adjacent to the proposed lease parcel. The spill site has been recommended for no further action in terms of soil removal and is undergoing ground water monitoring.

Based upon the EBS and the references cited therein, the proposed lease parcel is suitable for lease for its intended purpose. Although hazardous substances or petroleum products were stored for a year or more on the parcel, and there was a release of petroleum products, the appropriate response action has been completed and the property is not now contaminated. In accordance with the DoD FOSL guidance and the Comprehensive Response, Compensation, and Liability Act 120(h), a hazardous substance notice will be issued for the presence of petroleum products and potential presence of asbestos and LBP.

Adjacent properties do not pose a risk to human health or the environment on the proposed lease parcel because although hazardous substances and/or petroleum products were stored for a year or more on adjacent properties, and there was a release of petroleum products, appropriate remedial action for potential groundwater contamination is underway. Adjacent properties include the parking lot just south of the proposed lease parcel.

4.0 Regulatory Comment

Regulatory agencies were notified at the initiation of the EBS and FOSL. Regulatory comments received during the development of these documents were reviewed and incorporated as appropriate.

Finding of Suitability to Lease (FOSL)

Fort Devens
(Building 2602)

5.0 Lease Provisions

a. Hazardous substance or petroleum product notices, as provided in Section 3.0, will be given.

b. Provisions will be included in the lease to ensure that the requirements of Section IV (E) and (G) of the DoD FOSL policy are met.

c. The model lease provisions attached to the DoD FOSL policy will be included in the lease.

d. A notice will be given for the potential presence of asbestos and LBP within the proposed lease parcel. This notice will include a statement about the responsibilities of the lessee if the use of the lease parcel changes to a residential property, school or daycare center.

e. The Army shall have access to the property in any case in which a response action or corrective action is found to be necessary after the date of the property lease, or such access is necessary to carry out a response action or corrective action on adjacent property.

f. This property will be transferred in accordance with proposed Section 37 of the Fort Devens Federal Facility Agreement.

6.0 Conclusion

Based on the above information, I conclude that the DoD requirements to reach a Finding of Suitability to Lease have been met, and, therefore, this parcel, Building 2602, can be used by the Massachusetts Government Land Bank pursuant to the proposed lease. The CERCLA 120(h) (1) notice requirements and the lease restrictions discussed above must be placed in the lease.

FOR FRANK R. FINCH
Colonel, GS
Director, Environmental Programs

Final

Environmental Baseline Survey for Proposed Lease Parcel 2600 Area

Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts

Prepared for:

U.S. ARMY ENVIRONMENTAL CENTER
ABERDEEN PROVING GROUND, MARYLAND 21010

Prepared by:

ARTHUR D. LITTLE, INC.
25 Acorn Park
Cambridge, Massachusetts 02140-2390

Requests for this document must be referred to:
Commander, U.S. Army Environmental Center
Aberdeen Proving Ground, Maryland 21010

December 1995

Final

Environmental Baseline Survey for Proposed Lease Parcel 2600 Area

Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts

Program Manager, Robert Lambe — Date: 12-21-95

Task Manager, Richard Waterman — Date: 12/21/95

Submitted to

U.S. Army Environmental Center (USAEC)
Aberdeen Proving Ground, Maryland

Revision 0
December 1995

Arthur D. Little, Inc.
Acorn Park
Cambridge, Massachusetts
02140-2390

ADL Reference 67073-21

DAAA15-91-D-0016
Delivery Order 0013

This document is printed on recycled paper and is recyclable.

Table of Contents

Acronyms and Abbreviations iv

Executive Summary v

1.0 Introduction 1-1

2.0 Site Description 2-1
2.1 Proposed Lease Parcel 2-1
2.2 Adjacent Properties 2-1

3.0 Survey Methodology 3-1
3.1 Review of the Community Environmental Response Facilitation Act 3-1
3.2 Records Search - Lease Parcel 3-2
3.3 Records Search - Adjacent Properties 3-4
3.4 Aerial Photographs Review and History 3-5
3.5 Interviews 3-6
3.6 Visual Inspections 3-6
3.7 Identification of Sources of Contamination on Adjacent Properties 3-6
3.8 Ongoing Response Actions 3-6
3.9 Physical Inspections - Adjacent Properties 3-6
3.10 Sampling 3-7

4.0 Relevant Information Gained During Records Search 4-1

5.0 Title Search 5-1

6.0 Description of Activities 6-1
6.1 Proposed Lease Parcel 6-1
6.2 Adjacent Properties 6-2
6.2.1 Nashua River 6-2
6.2.2 Oak Hill and Spruce/Maple Housing Areas 6-2
6.2.3 U.S. Army Reserves' Storage Building 6-2
6.2.4 World War II-Era Buildings 6-2
6.2.5 Golf Course Fairways 6-3
6.2.6 Historical Ranges and Training Areas 6-3
6.2.7 Test Measurement Diagnostic Equipment-Building 3605 6-3
6.2.8 Historical Motor Pool and Gas Station Buildings 2517 and 2514 6-3

7.0 Hazardous Substances and Petroleum Products Management Practices and Potential Impacts 7-1
7.1 Proposed Lease Parcel 7-1
7.1.1 Study Area 13, Lake George Street Landfill 7-1
7.1.2 Historical Motor Pool and Gas Station, Buildings 2601, 2681 7-1
7.1.3 Historical Motor Pool and Gas Station, Building 2613, 2681, 2682 7-2
7.1.4 Historical Motor Pool and Gas Station, Buildings 2656, 2711, 181 7-2
7.1.5 Historical Motor Pool and Gas Station, Buildings 2666, 2667, 182 7-3
7.1.6 Vail Dental Clinic 7-4
7.1.7 Previously Removed Underground Storage Tanks 7-4
7.1.8 AREE 69B, Historical Spill 7-4
7.1.9 AREE 70, Storm Sewer Systems 26 and 28 7-5
7.1.10 Former Entomology Shop, Study Area 36 (Building 2728) 7-5
7.1.11 Former Underground Storage Tanks associated with Buildings 2648 and 2650, Study Area 58 7-5
7.1.12 AREE 65, Asbestos Survey 7-5
7.1.13 AREE 67, Radon Survey 7-6
7.1.14 AREE 68, Lead-Based Paint Survey 7-6
7.1.15 Radiation Survey 7-6
7.2 Adjacent Properties 7-6
7.2.1 AREE 61N, Test Measurement and Diagnostic Equipment Area 7-6
7.2.2 Historical Motor Pool and Gas Station, AREE 61O and SA 43K (Buildings 2517 and 2514) 7-6
7.2.3 Study Area 43P and AREE 61T, Historical Gas Station and Motor Pool 7-7
7.2.4 AREE 69H and 69L, Past Spill Sites 7-7
7.2.5 AREE 65, Asbestos Survey 7-8
7.2.6 AREE 67, Radon Survey 7-8
7.2.7 AREE 68, Lead-Based Paint 7-8
7.2.8 Unexploded Ordnance Study 7-8

8.0 Relevant Information From Records Review, Interviews, and Aerial Photographs Review 8-1

9.0 Ongoing Response Actions 9-1
9.1 Proposed Lease Parcel 9-1
9.1.1 Study Area 13, Lake George Street 9-1
9.1.2 Historical Motor Pool and Gas Station, AREE 61P and SA 43L 9-1

9.1.3 Historical Motor Pool and Gas Station, AREE 61S and SA 43O 9-1
9.1.4 AREE 69B, Past Spill Site at Building 2602 9-1
9.1.5 AREE 69K, Past Spill Site on Lake George Street Wash Rack 9-1
9.2 Adjacent Properties 9-2
9.2.1 Previously Removed Underground Storage Tank, Area of Contamination 63AX (Building 2517) 9-2

10.0 Recommendation as to Suitability to Lease 10-1

11.0 Selected References 11-1

12.0 Selected Map and Photograph References 12-1

List of Figures

Figure 1: Proposed Lease Parcel, 2600 Area 1-2
Figure 2: Previously Removed Underground Storage Tanks in the Proposed Lease Parcel 7-9

List of Tables

Table 2-1: Existing Structures Within the 2600 Area 2-2
Table 3-1: Community Environmental Response Facilitation Act Parcels Within the 2600 Area 3-8
Table 7-1: Previously Removed Underground Storage Tanks in the 2600 Area 7-10

Acronyms and Abbreviations

ACM	Asbestos-Containing Material
AOC	Area of Contamination
AREE	Area Requiring Environmental Evaluation
BOP	Bureau of Prisons
BRAC EE	Base Realignment and Closure Environmental Evaluation
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERFA	Community Environmental Response Facilitation Act
CHPPM	United States Army Center for Health Promotion and Preventative Medicine
DoD	Department of Defense
EBS	Environmental Baseline Survey
EMO	Environmental Management Office
EPA	United States Environmental Protection Agency
EPIC	Environmental Photographic Interpretation Center
FOSL	Finding of Suitability to Lease
IAG	Interagency Agreement
IRA	Immediate Removal Action
LBP	Lead-Based Paint
MCP	Massachusetts Contingency Plan
NBC	Nuclear, Biological, Chemical
NED	New England Division (United States Army Corps of Engineers)
NFA	No Further Action
PCB	Polychlorinated Biphenyl
pCi/L	Pico Curies per Liter
RAO	Response Action Outcome
SA	Study Area
TMDE	Test Measurement Diagnostic Equipment
USACE	United States Army Corps of Engineers
USAEC	United States Army Environmental Center
UST	Underground Storage Tanks
UXO	Unexploded Ordnance

Executive Summary

An Environmental Baseline Survey (EBS) was undertaken to make a determination of the suitability to lease the 2600 Area at Fort Devens to the Massachusetts Government Landbank for a period of 30 years. The proposed lease parcel is located in the southwest corner of the Main Post and includes open land and buildings surrounded by, and adjacent to Lake George Street, Hattonsville Street, Jackson Road, Hospital Road, and Givry Street.

The EBS followed protocols outlined in the current Department of Defense (DoD) Guidance on the Environmental Review Process for lease actions at Base Realignment and Closure Installations. This process includes a records review, a review of aerial photographs, and a physical inspection of the proposed lease parcel and adjacent properties. Sampling activities did not occur during the EBS process, but occurred previously on the proposed lease parcel and on adjacent property during various Base Realignment and Closure Environmental Evaluations (BRAC EE) and Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) studies.

Potential environmental concerns identified on the proposed lease parcel were asbestos-containing materials (ACM), lead-based paint (LBP), radon, previously removed underground storage tanks (USTs), existing USTs, and a historical landfill. The proposed lease parcel contains approximately 8 industrial buildings and 14 housing structures located within the Locust Housing Area. ACM identified inside buildings within the proposed lease parcel include: pipe fittings and lagging, vinyl floor tile and associated mastic, roofing sealant, wall board, and transite panels.

A Fort Devens radon survey identified two housing units within Locust Housing, units 547B and 548A, and Building 2680 as having radon levels that exceeded the U.S. Environmental Protection Agency's annual average action level of 4 picoCuries per Liter (pCi/L). Building 547B had a radon level of 6.3 pCi/L and Building 548A had a radon level of 5.0 pCi/L. Building 2680 had a radon level of 4.3 pCi/L in an office on the first floor.

Three historical spill sites, Areas Requiring Environmental Evaluation (AREEs) 69AM, 69B, and 69K, are located on the proposed lease parcel. AREE 69AM was referred to AREE 61P which was recommended for no further action (NFA). A removal action occurred at AREE 69K and a Draft Closure Report was issued in 1995. Ground water at AREE 69B is undergoing further investigation and continues to be monitored. The proposed lease parcel also contains five maintenance and waste accumulation areas and four historical gas stations. These areas include: AREEs 61P (Study Area [SA] 43L), 61Q (SA 43M), 61R (SA 43N), 61S (SA 43O), and 61AN. Three of the five sites, 61Q, 61R, and 61AN, have been approved for NFA by the

Army and regulators. AREEs 61P and 61S have been deferred to the Army Corps for removal actions.

Twenty-eight previously removed UST sites exist on the proposed lease parcel. All historical UST sites except for AREE 63Q have been approved for NFA. AREE 63Q is undergoing investigation to further identify potential residual contamination. Six fuel oil USTs remain on the proposed lease parcel.

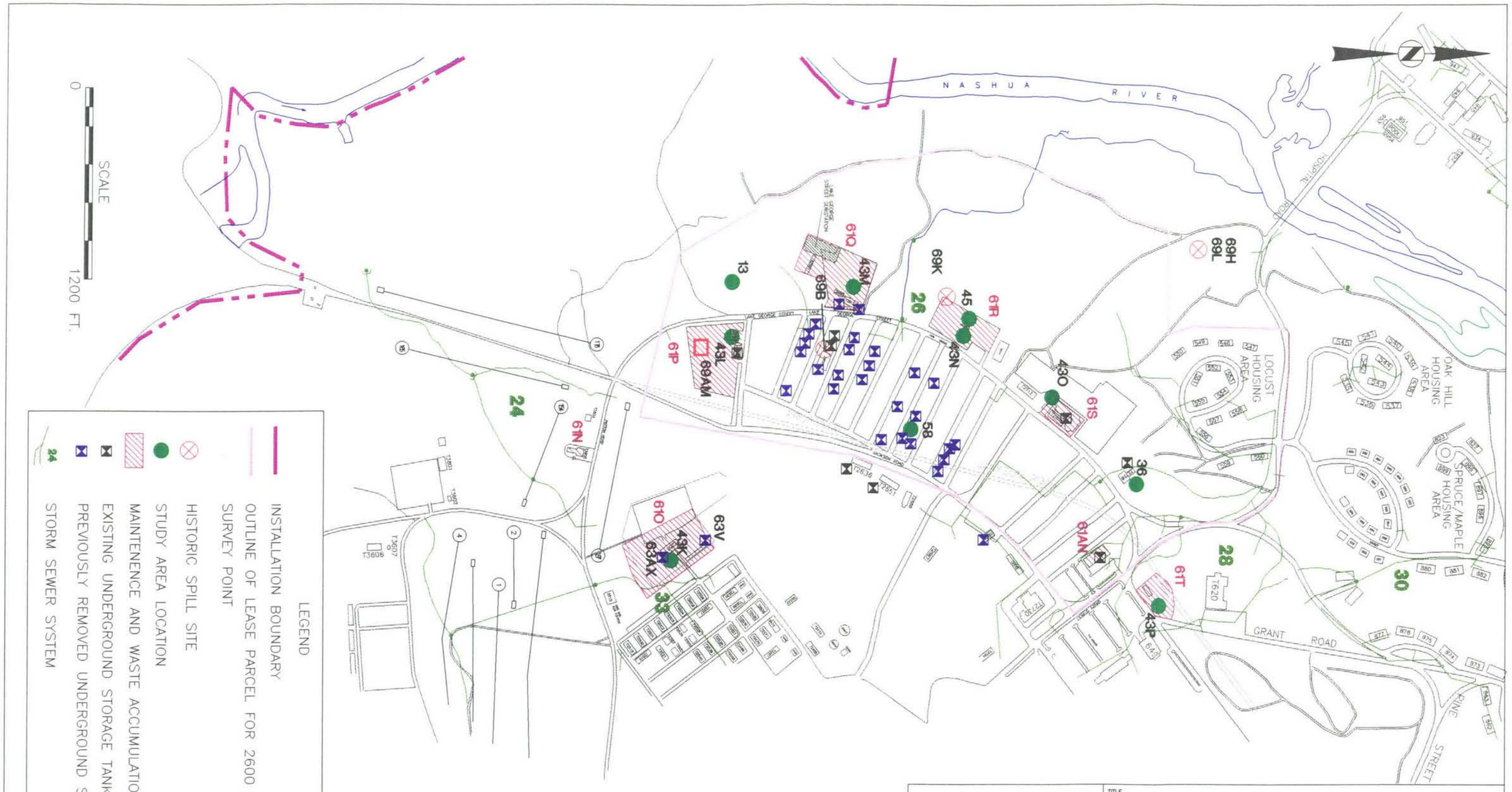
The proposed lease parcel contains four additional SAs: SA 13, the Lake George Street Landfill, SA 36, a former entomology shop (Building 2728), SA 45 a historical wash rack, and SA 58, two leaking UST locations. SA 36 and SA 45 have been recommended for NFA and SA 58 has been approved for NFA. SA 13, the Lake George Street Landfill, is undergoing further investigations and is included in the Fort Devens Landfill Consolidation Feasibility Study.

A majority of the area on the proposed lease parcel has been identified as Community Environmental Response Facilitation Act (CERFA)-disqualified. CERFA Parcels 19, 22, 32, 33, and 34 are disqualified, CERFA parcels 20, 25, and 26 are qualified, and parcels 21, 24, 28, 29, 30, and 35 are CERFA-clean parcels. A majority of sites within CERFA-disqualified areas have been recommended for NFA.

Based upon the above stated factors, the proposed lease parcel is recommended for classification as suitable to lease. In accordance with DoD EBS guidance, a hazardous substance notice is needed because petroleum products were stored for a year or more, or known to have been released, transferred, or disposed of on the proposed lease parcel. The notice is required for the presence of historical USTs removed from historical gas stations and historical World War II-era barracks. In addition, there are existing USTs on the parcel: 1,000-gallon No. 2 fuel oil USTs at Buildings 2601 and 2728; existing 2,000-gallon No. 2 fuel USTs at Buildings 2680 and 2729; and two existing 12,000-gallon No. 2 fuel oil USTs at Building 2602. A notice should also be issued for the presence of asbestos and radon and potential presence of LBP within the proposed lease parcel.

1.0 Introduction

The Environmental Baseline Survey (EBS) is performed in accordance with current Department of Defense (DoD) guidance in order to make a determination of the suitability to lease the 2600 Area at Fort Devens, Massachusetts, to the Massachusetts Government Landbank for innovation technology and business purposes. The lease is for a period of 30 years. The proposed lease parcel consists of approximately 166 acres of land (See Figure 1).



Arthur D Little		TITLE: FIGURE 1 PROPSOED LEASE PARCEL FOR THE 2600 AREA FORT DEVENS, MASSACHUSETTS	
APPROVALS	DATE		
DRAWN MSB	7/25/95	PREPARED FOR: USAEC	SCALE: 1 IN. = 600 FT.
CHECKED			
QA/CONTROL		DATE: JULY 1995	DWG. NO.: 67073-009
TECH REVIEW			
PROJ MNGR		SOURCE: USAEC, ADL INC.	SHEET 1 OF 1

2.0 Site Description

2.1 Proposed Lease Parcel

The proposed 2600 Area lease parcel extends from Givry Street to the northeast, along Jackson Road to the south and southeast and to the boundaries of the U.S. Fish and Wildlife Parcel along the Nashua River located west of the proposed lease parcel. The Locust Housing Area is included within the proposed lease parcel, located on the northern edge.

A majority of the proposed lease parcel consists of open grassy fields. The land closest to the boundary of the U.S. Fish and Wildlife lease parcel is forested wetlands. Southwest of the proposed lease parcel are historical filter beds (ENSR, 1994). Table 2-1 identifies structures within the proposed lease parcel, the date the structure was constructed, and the existing heat source within the building.

2.2 Adjacent Properties

A portion of the green-way associated with the U.S. Fish and Wildlife Service parcel is located along the western border of the proposed lease parcel. The Oak Hill and Spruce/Maple Housing Areas are situated northwest of the parcel across from Hospital Road. The Reserve Enclave and Sherman Avenue are located north-northwest of the proposed parcel. A paved parking lot with room for approximately 600 vehicles is located directly north of the parcel, across Givry Street and south of the Reserve Enclave. Buildings 2636, 2651, 2686, 2687, 2688, 2732, and 2730 are situated on the eastern border of the proposed lease parcel and golf course fairways 14, 15, 16, and 17 are south and southeast of the proposed parcel.

Table 2-1: Existing Structures Within the 2600 Area

Building Number	Description	Heat Source	Date Constructed
547	Locust Family Housing	Natural Gas	1962
548	Locust Family Housing	Natural Gas	1962
549	Locust Family Housing	Natural Gas	1962
550	Locust Family Housing	Natural Gas	1962
551	Locust Family Housing	Natural Gas	1962
552	Locust Family Housing	Natural Gas	1962
553	Locust Family Housing	Natural Gas	1962
554	Locust Family Housing	Natural Gas	1962
555	Locust Family Housing	Natural Gas	1962
556	Locust Family Housing	Natural Gas	1962
557	Locust Family Housing	Natural Gas	1962
558	Locust Family Housing	Natural Gas	1962
559	Locust Family Housing	Natural Gas	1962
560	Locust Family Housing	Natural Gas	1962
2601	Historical Motor Pool	1,000-Gallon No. 2 Fuel Oil	1941
2602	Administration/Classrooms	(2) 12,000-Gallon No. 2 Fuel Oil USTs	1989
2613	Historical Motor Pool	Unheated	1941
2680	Nuclear, Biological, Chemical School	2,000-Gallon No. 2 Fuel Oil	1988
2682	Historical Pumphouse	Unheated	1941
2728	Maintenance Shop	1,000-Gallon No. 2 Fuel Oil	1941
2729	Vail Dental Clinic	2,000-Gallon No. 2 Fuel Oil	1965
2731	Bus Passengers' Waiting Shelter	Unheated	1977
Substation	Lake George Street	Unheated	1991

3.0 Survey Methodology

The EBS was conducted in accordance with DoD guidance and consisted of the following:

- Review of the Community Environmental Response Facilitation Act (CERFA)
- Records search of the proposed lease parcel
- Records search of adjacent properties
- Review of aerial photographs and historical drawings
- Interviews
- Visual site inspections
- Identification of sources of contamination on adjacent property
- Identification of ongoing response actions

3.1 Review of the Community Environmental Response Facilitation Act Report

The Final CERFA Report was reviewed as part of the EBS. The CERFA report identified property on Fort Devens that offered the greatest opportunity for immediate reuse and development. As part of the CERFA process, property where no Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-regulated hazardous substance or petroleum products were stored, released or disposed was identified. Other non-CERCLA hazardous materials that were identified during the CERFA review include ACM, radon, polychlorinated biphenyls (PCBs), and lead-based paint (LBP). At the completion of the evaluation, four types of CERFA parcels were identified. The parcels are defined as follows:

- CERFA-Clean Parcels: Areas where historically there were no releases, disposal, or storage of CERCLA-regulated hazardous substances or petroleum products

- CERFA Parcels with Qualifiers: Areas characterized as containing no hazardous materials or petroleum products, but containing non-CERCLA hazardous materials such as, ACM, LBP, radon, and PCBs

- CERFA-Disqualified Parcels: Areas characterized as presently or historically containing hazardous materials or petroleum products for a year or more

- CERFA-Excluded Parcels: Areas that have an existing mandate for retention by the federal government or have already been leased by deed (Arthur D. Little, 1994a)

Table 3-1 identifies CERFA parcels located on the proposed lease parcel.

3.2 Records Search - Lease Parcel

The records search consisted of a review of all environmental reports pertaining to the proposed lease parcel. References are provided in Section 11.0. The records included:

- ABB Environmental Services, Inc. 1993a. *SI Data Packages for Groups 2, 7 and Historical Gas Stations, Data Item A009, Fort Devens, MA.* January.
- ABB Environmental Services, Inc. 1993b. *Fort Devens Site Investigation Report, Groups 2, 7 and Historical Gas Stations.* May.
- ABB Environmental Services, Inc. 1994a. *Supplemental Site Investigation Data Packages for Groups 2, 7 and Historical Gas Stations, Data Item A009.* January.
- ABB Environmental Services, Inc. 1994b. *Final Contract Design Plans and Specifications. Clean-Out and Closure of Lake George Street Vehicle Wash Area.* January.
- ABB Environmental Services, Inc. 1994c. *No Further Action Under CERCLA. Study Area 43L Historical Gas Station Sites.* January.
- ABB Environmental Services, Inc. 1994d. *No Further Action Under CERCLA. Study Area 43M Historical Gas Station Sites.* January.
- ABB Environmental Services, Inc. 1994e. *Draft No Further Action Under CERCLA. Study Area 13 Landfill No. 9.* May.
- ABB Environmental Services, Inc. 1995a. *No Further Action Under CERCLA. Study Area 43N Historical Gas Station Sites.* January
- Arthur D. Little, Inc. 1994a. *Community Environmental Response Facilitation Act (CERFA) Report, Fort Devens Facility, Fort Devens, Massachusetts.* April.
- Arthur D. Little, Inc. 1994b. *Final Radon Survey Report (AREE 67) Base Realignment and Closure Environmental Evaluation (BRAC EE) Part II Fort Devens, Massachusetts.* May.
- Arthur D. Little, Inc. 1994c. *Final Storm Sewer Evaluation (AREE 70) Report, Base Realignment and Closure Environmental Evaluation (BRAC EE), Fort Devens, Massachusetts.* June.
- Arthur D. Little, Inc. 1995a. *Final Asbestos Survey Report (AREE 65) Base Realignment and Closure Environmental Evaluation (BRAC EE) Part II Fort Devens, Massachusetts.* May.

- Arthur D. Little, Inc. 1995b. *Draft Lead-Based Paint Survey, Base Realignment and Closure Environmental Evaluation (BRAC EE), Fort Devens, Massachusetts.* May.

- Arthur D. Little, Inc. 1995c. *Final Maintenance and Waste Accumulation Areas (AREE 61) Report Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts.* June.

- Arthur D. Little, Inc. 1995d, *Final Previously Removed Underground Storage Tank (AREE 63), Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts.* June.

- Arthur D. Little, Inc. 1995e. *Final Past Spill Sites Report (AREE 69) Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts.* June.

- ENSR Consulting & Engineering. 1993. *Historical Inventory Survey, Fort Devens, Massachusetts*. May.

- ENSR Consulting & Engineering. 1994. *Draft Environmental Impact Statement. Fort Devens, Massachusetts, Disposal and Reuse,* September.

- OHM Remedial Services Corp. 1995a. *Removal Action, Draft Closure Report.* January.

- Roy F. Weston, Inc. 1992. *Enhanced Preliminary Assessment, Fort Devens, Massachusetts.* April 1992.

- SEA Consultants 1994. *Nonresidential Floor Drain Evaluation Study, Volumes I and II, Fort Devens, Massachusetts*. February.

- U.S. Army Center for Health Promotion and Preventative Medicine (CHPPM). 1994. *Industrial Radiation Survey Historical Data Review, Review No. 27-43-2453-94.* September.

- U.S. Army Corps of Engineers, NED. 1995a. *Issues Paper, Management of Debris Disposal Areas, Fort Devens, Massachusetts.* March.

- U.S. Army Corps of Engineers, New York District, 1992. *Feasibility Study for Utility Realignment, Fort Devens, Massachusetts*. August.

3.3 Records Search - Adjacent Properties

The records search consisted of a review of all environmental reports pertaining to areas adjacent to the proposed lease parcel that may have an effect on the lease parcel. These records included:

- ABB Environmental Services, Inc. 1993a. *SI Data Packages for Groups 2, 7 and Historical Gas Stations, Data Item A009, Fort Devens, MA.* January.

- ABB Environmental Services, Inc. 1993b. *Fort Devens Site Investigation Report, Groups 2, 7 and Historical Gas Stations.* May.

- ABB Environmental Services, Inc. 1994a, *Supplemental Site Investigation Data Packages for Groups 2, 7 and Historical Gas Stations, Data Item A009.* January.

- Arthur D. Little, Inc. 1994a. *Community Environmental Response Facilitation Act (CERFA) Report, Fort Devens Facility, Fort Devens, Massachusetts.* April.

- Arthur D. Little, Inc. 1994b. *Final Radon Survey Report (AREE 67) Base Realignment and Closure Environmental Evaluation (BRAC EE) Part II Fort Devens, Massachusetts.* May.

- Arthur D. Little, Inc. 1995a. *Final Asbestos Survey Report (AREE 65) Base Realignment and Closure Environmental Evaluation (BRAC EE) Part II Fort Devens, Massachusetts.* May.

- Arthur D. Little, Inc. 1995b. *Draft Lead-Based Paint Survey, Base Realignment and Closure Environmental Evaluation (BRAC EE), Fort Devens, Massachusetts.* May.

- Arthur D. Little, Inc. 1995c. *Final Maintenance and Waste Accumulation Areas (AREE 61) Report Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts.* June.

- Arthur D. Little, Inc. 1995d, *Final Previously Removed Underground Storage Tank (AREE 63), Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts.* June.

- Arthur D. Little, Inc. 1995e. *Final Past Spill Sites Report (AREE 69) Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts.* June.

- ENSR Consulting & Engineering. 1993. *Historical Inventory Survey, Fort Devens, Massachusetts*. May.

- Roy F. Weston, Inc. 1992. *Enhanced Preliminary Assessment, Fort Devens, Massachusetts.* April 1992.

- SEA Consultants. 1994. *Nonresidential Floor Drain Evaluation Study, Volumes I and II, Fort Devens, Massachusetts*. February.

- U.S. Army Corps of Engineers, Huntsville Division. 1995b. *U.S. DoD BRAC Ordnance, Ammunition, and Explosives Archives Search Report, Fort Devens, Massachusetts.* May.

3.4 Aerial Photographs Review and History

An aerial photographs review for Fort Devens, including the proposed lease parcel and adjacent properties, was conducted in 1991 by the Environmental Photographic Interpretation Center (EPIC). Aerial photographs and historical drawings reviewed during the preparation of this EBS included:

- Arthur D. Little, Inc. 1994. *Fort Devens Base Map* (DV-BASE.DWG), Fort Devens, Massachusetts.
- Environmental Protection Agency. 1991. *(EPIC) Installation Assessment, Fort Devens, Ayer, MA, Volume II.* September.
- U.S. Army Corps of Engineers. 1954. New England Division. *Basic Information - Master Planning, Detail Site and Building Use Map, Fort Devens, Massachusetts.*
- U.S. Army Corps of Engineers. 1986. New England Division. *General Site Map.* Fort Devens, Massachusetts.
- U.S. Army, Fort Devens, Massachusetts. 1957. *Fort Devens Training Areas and Ranges.* Fort Devens, Massachusetts.
- U.S. Army, Fort Devens, Massachusetts. 1961. *Ranges and Training Areas.* Fort Devens, Massachusetts. Range Control.
- U.S. Army, Fort Devens, Massachusetts. 1967. *Ranges and Training Areas.* Fort Devens, Massachusetts.
- War Department. 1919. *General Map, Camp Devens, Massachusetts.* Prepared by the Construction Division.
- War Department. 1920. *Property Map, Camp Devens, Massachusetts.* Prepared by the Construction Division.
- War Department. 1941. *General Layout Plan, Fort Devens, Massachusetts.* Office of Constructing Quartermaster, Fort Devens, Massachusetts.

3.5 Interviews

Interview with current employees were conducted as part of the area requiring environmental evaluation (AREE) 61, 63, and 69 portions of the Base Realignment and Closure Environmental Evaluation (BRAC EE) and the CERFA Report.

3.6 Visual Inspections

Visual inspections of the proposed lease parcel were conducted as part of the AREE 61, 63, 69, asbestos investigations, and CERFA report. The CERFA, AREE 61 and 69 inspections took place during the summer of 1993 and the AREE 63 and asbestos inspections took place during 1994.

3.7 Identification of Sources of Contamination on Adjacent Properties

A potential source of contamination of an adjacent property was identified during the various studies identified in Section 3.3. This source is a historical gas station and motor pool identified as AREE 61O/SA 43K, and AOC 63AX. These sites are located at Building 2517. AOC 63AX is undergoing the remedial investigation and feasibility study process and the entire site is referred to as AOC 63AX.

3.8 Ongoing Response Actions

There are currently six ongoing response actions occurring within the proposed lease parcel. The six areas undergoing a response action include: SA 13, AREE 61P/SA 43L, AREE 61S/SA 43O, AREE 69B, AREE 69K, and AREE 63Q. See Section 9.0 for a detailed discussion of the status of these sites.

3.9 Physical Inspections - Adjacent Properties

Physical inspections of the areas adjacent to the proposed lease parcel were conducted during the AREE 63 studies in 1993 and 1994 and during the AREE 61 studies in 1993.

3.10 Sampling

Geological samples were collected during related SA 43, AREE 61 and AREE 69 studies in 1993 and 1994. Radon samples were collected from buildings both on and adjacent to the proposed lease parcel in 1990. Asbestos samples were collected from adjacent buildings in 1994.

Table 3-1: CERFA Parcels Within the 2600 Area

CERFA Parcel	Type of Parcel	Reason for CERFA Classification
19	Disqualified	Historical Landfill Historical Motor Pools and Gas Stations Historical USTs, Historical Spill Location Potential ACM and LBP
20	Qualified	Potential ACM and LBP
21	Clean	N/A
22	Disqualified	Historical Motor Pool and Gas Station Historical UST Historical Spill Locations Historical Wash Rack Existing Fuel Oil USTs Potential ACM and LBP
24	Clean	N/A
25	Qualified	Potential ACM and LBP
26	Qualified	Potential ACM and LBP
28	Clean	N/A
29	Clean	N/A
30	Clean	N/A
32	Disqualified	Historical Motor Pool and Gas Station Existing Fuel Oil USTs Potential ACM, LBP, and Radon
33	Disqualified	AREE 61AN MWAA Area Existing Fuel Oil USTs Potential ACM and LBP
34	Disqualified	Existing Fuel Oil UST Potential ACM and LBP
35	Clean	N/A

UST = Underground Storage Tank
LBP = Lead-Based Paint
ACM = Asbestos-Containing Material
N/A = Not Applicable (Clean Areas)

4.0 Relevant Information Gained During Records Search

The records search identified 8 Study Areas (SAs) and 38 AREEs, as defined in the Interagency Agreement (IAG) located within the proposed lease parcel. The eight SAs include: SA 13, the Lake George Street Landfill; SA 45, the Lake George Street Vehicle Wash Rack; SA 36, a former Department of Engineering and Housing Entomology Shop located at Building 2728; SA 58, two leaking underground storage tank (UST) locations; and historical gas stations SAs 43L, 43M, 43N, and 43O. The proposed lease parcel contains 28 previously removed UST locations, AREE 63 sites. Five AREE 61 sites; AREEs 61P, 61Q, 61R, and 61S; and AREE 61AN, the Vail Dental Clinic, identified as maintenance and waste accumulation areas, are located on the proposed parcel. Four of the five AREE 61 sites include the four above-mentioned historical gas stations. Three past spill sites, AREEs 69B, 69K, and 69AM also exist on the proposed lease parcel and two Storm Sewer Systems, AREE 70, flow through the parcel.

SAs and AREEs were identified within properties adjacent to the proposed lease parcel. These sites include three AREE 61 (61N, 61O, 61T) sites, two historical gas stations (SA 43K, 43P), an AREE 63 (AOC 63AX) site, and three AREE 69 (69H, 69L, 69V) sites.

5.0 Title Search

The property within the proposed lease parcel was acquired by the U.S. Army in 1919. Previously, this land was privately owned by residents of Harvard, Massachusetts. Maps displaying tracts of land acquired by the Army and the dates of acquisition are presented in the CERFA Report (Arthur D. Little, 1994a).

6.0 Description of Activities

6.1 Proposed Lease Parcel

Fort Devens, formerly known as Camp Devens, was established in 1917. The proposed lease parcel was acquired in 1919 from private landowners of the town of Shirley, Massachusetts. In 1919, approximately 82 buildings were constructed on the proposed lease parcel. These buildings were part of a World War I-era hospital. They included infirmaries, patient wards, administrative offices, a Red Cross Building, a boiler house, a laundry facility, a Young Men's Christian Association facility, a chapel, and a mortuary (War Department, 1920).

During the early 1940s, a majority of the World War I-era hospital buildings were demolished and new wooden barracks and mess halls were constructed. In 1941, a total of 113 buildings existed on the proposed lease parcel. The buildings consisted of 47 barracks, 18 mess halls, 21 day rooms/storage areas/administrative offices, 4 gas stations, 4 motor repair shops, 4 recreation centers, 4 post exchanges, 4 patient wards/infirmaries, 4 officers quarters, 2 workshops, a laundry facility, a cell house, and a dental clinic. Areas not occupied by buildings were either paved or open grassy areas (War Department, 1941 and U.S. Army Corps of Engineers, 1941).

A majority of the World War II-era wooden buildings remained on the proposed lease parcel until the 1980s. During the 1980s, a large number of buildings located between Lake George Street and Jackson Road were demolished, leaving open grassy areas. Wooden, World War II-era buildings that remain in the proposed lease parcel consist of: historical motor pool Buildings 2601, 2613, historical gasoline pumphouses Building 2681, 2682, a vehicle maintenance shop, and Building 2728. In 1965, the Vail Dental Clinic, Building 2729, was constructed in the northeast portion of the proposed lease parcel. During the late 1980s, two brick buildings were constructed in the area, Building 2602, located on the corner of Lake George Street and Hattonsville Road, and Building 2680, located on Lake George Street. The Locust Housing Area, situated in the northern corner of the proposed lease parcel, was constructed in 1962. The housing area, identified as Building numbers 547 through 560, contains 14 buildings and 28 housing units. In 1991 the Lake George Street Substation was constructed. The substation is located just west of Building 2613 on Lake George Street. A bus passengers' waiting shelter, constructed in 1977, is also located on the corner of Jackson Road and Givry Street and is identified as Building 2731.

Buildings within the proposed lease parcel contain No. 2 fuel oil USTs. Buildings 2601 and 2728 contain 1,000-gallon fuel oil USTs; Buildings 2680 and 2729 contain 2,000-gallon fuel oil USTs; and Building 2680 contains two 12,000-gallon fuel oil USTs. The Locust Housing area is heated by natural gas, and, therefore, contains no USTs.

6.2 Adjacent Properties

6.2.1 Nashua River

The Nashua River and its associated green-way are located along the western boarder of the proposed lease parcel. This parcel of land is being transferred to the Federal U.S. Fish and Wildlife Service.

6.2.2 Oak Hill and Spruce/Maple Housing Areas

The Oak Hill Housing Area and the Spruce/Maple Housing Area are situated just north of the proposed lease parcel on the north side of Hospital Road. Both of these ranch-style housing areas were constructed during the early 1960s. The Oak Hill Housing area consists of 13 structures (26 units), Buildings 534 - 546. The Spruce/Maple Housing Area consists of 32 structures, Buildings 561 - 592. The housing units are heated by natural gas.

6.2.3 U.S. Army Reserves' Storage Building

Building 622, a historical U.S. Army Reserve storage building, is located on Sherman Avenue, northeast of the proposed lease parcel. Documentation indicated that, historically, the area contained a motor pool and gas station, identified as AREE 61T/SA 43P. According to aerial photographs, the existing building was constructed between 1952 and 1965 to function as a classroom. It consists of a concrete foundation with wood sides and a wood ceiling. The utilities to Building 622 have been discontinued. A 1,000-gallon No. 2 fuel oil UST, managed by the Fort Devens Environmental Management Office (EMO), is located on the north side of the building and is scheduled to be removed in 1997. The Reserves have occupied the building for approximately 1.5 years and use the building to store office equipment and supplies. Prior to being occupied by the Reserves, the building was used as a community center by the Enlisted Wives' Association.

A historical gas station existed in the area prior to 1945. The gas station was located on Sherman Avenue, approximately 150 feet northeast of the intersection of Givry Street and Sherman Avenue. It consisted of a pump island, a small gasoline pumphouse, and a 5,000-gallon UST. Motor pool operations were discontinued during the late 1940s or early 1950s. The UST was reportedly moved to and installed at SA 43I, another historical gas station located along Queenstown Street north of Building 604.

6.2.4 World War II-Era Buildings

Seven World War II-era buildings are located along the eastern boarder of the proposed lease parcel. The buildings are: 2636, 2651, 2686, 2687, 2688, 2730, and 2732. Building 2651 is occupied by the Massachusetts National Guard, and the remaining 6 buildings are currently unoccupied. All 7 buildings, constructed in 1941, contain 1,000-gallon No. 2 fuel oil USTs.

6.2.5 Golf Course Fairways

Golf course fairways 14, 15, 16, and 17 exist south and southeast of the 2600 Area. The fairways were constructed during the early 1960s.

6.2.6 Historical Ranges and Training Areas

Historically, property surrounding the proposed lease parcel was utilized as ranges and training areas. A pistol range was located just south of Hospital Road and west of the Locust Housing Area, near the Nashua River. A training area was located northwest of the Lake George Street Landfill, SA 13, near the banks of the Nashua River and a second training area was located southeast of Building 2601 (U.S. Army, 1967). A confidence course was located east of Jackson Road and a second confidence course was located north of the Vail Dental Clinic, Building 2729 (U.S. Army, 1957).

6.2.7 Test Measurement Diagnostic Equipment-Building 3605

Building 3605 is located on Patton Road, near Jackson Gate. The building was constructed in 1941 to function as a fire station. In 1969, the building became a Rod and Gun Club and in 1984, the building was renovated to become the Test Measurement Diagnostic Equipment (TMDE) Building. The building contains a septic tank located at the south of the building and a 1,500-gallon No. 2 fuel oil UST. The building is located within the Bureau of Prisons (BOP) parcel and will be managed by the BOP.

6.2.8 Historical Motor Pool and Gas Station Buildings 2517 and 2514

Buildings 2517 and 2514, a historical motor pool and gas station, are located on an access road off Patton Road behind golf course fairway No. 17. The area is identified as AREE 61O/SA 43K, and consists of a motor repair facility constructed during the 1960s and a historical gas station constructed during the 1940s.

The historical gas station, Building 2514, is designated SA 43K and contained a 5,000-gallon UST. The UST was removed by ATEC Environmental in 1992. The motor pool area contains a wash rack, an oil-water separator; installed in 1969, and a grease rack. Building 2517 was constructed in 1966 to serve as a tactical equipment repair shop. A 1,000-gallon waste oil UST, installed in 1980, was removed from the building in 1989 by Environmental Engineering and Geotechnics, Inc. The building currently contains two 250-gallon waste oil aboveground storage tanks.

7.0 Hazardous Substances and Petroleum Products Management Practices and Potential Impacts

7.1 Proposed Lease Parcel

Hazardous material and petroleum management practices associated with the proposed lease parcel were reviewed as part of this EBS.

7.1.1 Study Area 13, Lake George Street Landfill

The Lake George Street Landfill, SA 13, occupies approximately 1 acre of land west of Lake George Street, near the Nashua River. The site was used as a landfill from 1965 to 1975. Materials found in the landfill include construction debris, tree trunks, and waste oil. The area was investigated during the Groups 2, 7, and Historical Gas Stations Site Investigation and Supplemental Site Investigation. The investigations concluded that landfill activities did not contribute to soil contamination and had not affected the ground water. In addition, surface water drainage from the landfill was not directly connected to the Nashua River. A draft NFA decision document was issued in May 1994 (ABB, 1993a, 1994a, 1994c). The document included a recommendation for closure under applicable Massachusetts solid waste regulations and standards. The Lake George Street Landfill will be included in the Fort Devens Landfill Consolidation Feasibility Study due for review in December 1995. (USAEC-New England Division [NED], 1995)

7.1.2 Historical Motor Pool, Building 2601, and Gasoline Pumphouse, Building 2681

AREE 61P and SA 43L are located on the corner of Lake George Street and Hattonsville Road. The AREE consists of a motor repair facility, Building 2601, and an abandoned gas station, Building 2681. The buildings were constructed during the early 1940s and used during World War II (Arthur D. Little, 1995c).

The SA 43L study identified two 5,000-gallon tanks associated with the historical gas station at Building 2681. The tanks were removed in 1989 by Franklin Environmental. At the time of the tank removal, it was concluded that the soil and ground water were not affected by the former tanks and the area was backfilled and recommended for NFA. A NFA decision document was issued for the historical gas station in January 1994 (ABB, 1993a, 1994c).

A 1,000-gallon fuel oil UST exists outside the northeast corner of Building 2601. A 1,000-gallon waste oil UST, identified as AREE 63AY, was installed at the southwest corner of the building in 1980, and removed by Franklin Environmental in 1989. Soil and ground water contamination was not detected in the area and the site was approved for NFA in October 1995.

A historical spill location, AREE 69AM, is located in the parking lot behind Building 2601. The spill occurred in 1978 and consists of 15 to 20 gallons of fuel oil. Soil was removed from the area immediately following the spill and the parking area was later paved. AREE 69AM was referred to AREE 61P and AREE 61P was recommended for NFA (Arthur D. Little, 1995e).

AREE 61P addressed a historical dry well at Building 2681, a historical cesspool south of Building 2601, and indoor floor drains inside Building 2601. Field investigations identified soil contamination at both the cesspool and indoor floor drains. The dry well, cesspool, and indoor floor drains were further investigated by OHM Remedial Services Corporation in 1995 and removal actions occurred at both the dry well, cesspool, and indoor floor drains. An Immediate Removal Action (IRA) Completion Statement and a Response Action Outcome (RAO) were issued in November 1995 (Arthur D. Little, 1995c). AREE 61P was recommended for NFA (USACE NED, 1995).

7.1.3 Historical Motor Pool, Building 2613, and Gasoline Pumphouse, Building 2682

AREE 61Q and SA 43M are located on Lake George Street. The AREE consists of a motor repair facility, Building 2613, and an abandoned gas station, Building 2682. The buildings were constructed during the early 1940s and used during World War II (Arthur D. Little, 1995c).

The historical gas station, SA 43M, identified two 5,000-gallon USTs, which were removed by Franklin Environmental in 1989. At the time of the tank removal, it was concluded that the soil and ground water were not affected by the former tanks and the area was backfilled and recommended for NFA. An NFA decision document was issued for the historical gas station in January 1994 (ABB, 1994c).

A 1,000-gallon No. 2 fuel oil UST and a 1,000-gallon waste oil UST were removed by Franklin Environmental in 1989. The tanks were designated AREE 63AZ and AREE 63BA, respectively. Investigations at both tank locations did not identify soil or ground water contamination and the sites were approved for NFA in October 1995.

AREE 61Q addressed a historical cesspool associated with Building 2613 and a historical dry well associated with Building 2681. Field investigations did not identify contamination associated with the cesspool. The dry well was not investigated during the AREE 61 study because dry well investigations at other AREE 61 sites were determined NFA. A 1952 sanitary sewer map also indicated that the dry well was never identified during a site investigation. AREE 61Q was approved NFA in October 1995.

7.1.4 Historical Motor Pool, Buildings 2656 and 2711, and Gasoline Pumphouse, Building 181

AREE 61R and SA 43N and AREE 61R are located on Lake George Street. The AREE consisted of three buildings: a motor repair facility (Building 2656), a vehicle shed (Building 2711), and a gasoline pumphouse (Building 181). Historically, the buildings were used during World War II as a vehicle motor pool. The motor pool buildings were demolished prior to 1972 and a base carwash was constructed in the area between 1977 and 1980 (Arthur D. Little, 1995c).

The historical gas station, SA 43N, identified a 5,000-gallon UST, that was removed by ATEC Environmental in 1992. Based on the results of the samples collected during the tank removal and site investigation, it was determined that soil and ground water were not affected by the former tank. An NFA decision was accepted for the SA in January 1995 (ABB, 1995a).

A wash rack, designated, SA-45, at AREE 61R was constructed between 1977 and 1980. The wash rack contained eight wash stations, three drains, a grit removal chamber, and an oil-water separator. The drains led to the oil-water separator, which in turn flowed into the sanitary sewer system. The wash rack foundation remains in place and the grit chamber and oil-water separator were closed by GAS Environmental in 1994. The site is therefore recommended for NFA.

Historical spill location AREE 69K is located at the southwest portion of the paved area at AREE 61R. Two 55-gallon drums of waste oil were spilled during regular disposal from the wash area on July 3, 1990. Remedial investigations began in August 1990. All surface soil and some subsurface samples collected during the initial study and the Supplemental Site Evaluation had total petroleum hydrocarbon concentrations greater than the Massachusetts Contingency Plan (MCP) standards. As a result, soil removal activities were conducted in the spill area by OHM in 1995. The site was recommended for NFA.

AREE 61R addressed a historical cesspool associated with Building 2656 and a historical dry well associated with Building 181. Field investigations did not identify contamination associated with the cesspool. The dry well was not investigated during the AREE 61 study because dry well investigations at other AREE 61 sites were determined NFA. A 1952 sanitary sewer map also indicated that the dry well was never identified during a site investigation (Arthur D. Little, 1995c). AREE 61R was approved for NFA in October 1995.

7.1.5 Historical Motor Pool, Buildings 2666 and 2667, and Gasoline Pumphouse, Building 182

AREE 61S and SA 43O are located on Lake George Street. During the 1940s, the area consisted of three buildings: a motor repair facility (Building 2666), a vehicle shed (Building 2667), and a gasoline pumphouse (Building 182). Historically, the buildings were used during World War II as a vehicle motor pool. According to aerial photographs, the buildings were demolished after 1972 and prior to 1980.

In 1988, a Nuclear, Biological, and Chemical (NBC) Training School was constructed in the historical motor pool area adjacent to Lake George Street (Arthur D. Little, 1995c). During the EBS review, the NBC School no longer occupied Building 2680 and the building was vacant. The building is connected to the sanitary sewer system and contains a 2,000-gallon No. 2 fuel oil UST, installed in 1988. The building was surveyed for ACM in 1994. Suspect ACM identified in Building 2680 consisted of roofing sealant. The building was not surveyed for LBP. The building underwent a radiation survey in November 1995 and no radiation was found.

The historical gas station, SA 43O, identified two 5,000-gallon USTs that were removed by Kurz Associates in 1989. Based on the results of the samples collected during the tank removal and site investigation, it was determined that soil and ground water contamination was present in the facility of the former tank locations. Investigations concluded that petroleum products in contact with subsurface soil at SA 43O did not pose a potential risk to human health. However, ground water monitoring wells were installed in the area to further identify the extent of ground water contamination. An NFA decision was recommended, contingent upon the ground water sampling results (ABB, 1994a).

AREE 61S addressed a historical cesspool associated with Building 2666. Field investigations identified contamination associated with the historical cesspool and OHM conducted a removal action during Spring 1995. An IRA Completion Statement and an RAO were issued in November 1995. The site has been recommended for NFA (Arthur D. Little, 1995c).

7.1.6 Vail Dental Clinic, Building 2729

AREE 61AN is located on the corner of Givry Street and Lake George Street. The AREE consists of the historical Vail Dental Clinic and its associated parking lots. The clinic was constructed in 1965 and consisted of offices, examination rooms, and a waiting room. A 2,000-gallon No. 2 fuel oil UST is located near the southeast corner of the building. The clinic contained a satellite hazardous waste accumulation area to collect waste developer solution generated from the X-ray machines. AREE 61AN does not have a history of releases and was approved for NFA during October 1995 (Arthur D. Little, Inc., 1995c).

7.1.7 Previously Removed Underground Storage Tanks

Twenty-eight previously removed USTs were located within the proposed lease parcel. Twenty-seven former UST locations have been approved for NFA as of October 1995. The remaining UST site, AREE 63Q, is undergoing investigation to further identify potential residual contamination. Table 7-1 and Figure 2 identifies the 28 historical USTs located within the 2600 Area (Arthur D. Little, 1995d).

7.1.8 AREE 69B, Historical Spill

AREE 69B, a historical No. 2 fuel oil spill, occurred in 1990. The spill occurred during a routine filling of a fuel oil tank located on the southwest corner of Building 2602 and resulted in a 2,650-gallon spill. The spilled oil flowed west of Building 2602, toward Lake George Street. Contaminated soil was removed from the site and the area was backfilled with clean soil. Prior to the spill, the area contained three ground water monitoring wells. After the spill, two additional monitoring wells were installed. Ground water at AREE 69B continues to be monitored (Arthur D. Little, 1995e).

7.1.9 AREE 70, Storm Sewer Systems 26 and 28

Two storm sewer systems exist within the proposed lease parcel. System 26 collects runoff from a small area of Lake George Street located north of Building 2613 and flows west, discharging into the Nashua River. System 28 collects runoff from the northeastern portion of the proposed lease parcel, primarily the Vail Dental Clinic area and points north. The system drains northwest, where it collects runoff from three residential areas: Locust Housing Area, Spruce/Maple Housing Area, and Oak Hill Housing Area. The system eventually discharges into the Nashua River. Both storm sewer systems, 26 and 28, were not identified as systems of concern in the AREE 70 Report (Arthur D. Little, 1994c).

7.1.10 Maintenance Shop, Study Area 36 (Building 2728)

SA 36 was a former entomology shop located inside Building 2728. According to Army documentation, Building 2728 was used for pesticide storage from 1968 until 1978. Investigations were conducted at SA 36 to determine the potential presence of contamination associated with historical pesticide storage and mixing activities. Contamination was detected in sediment present in a storm drain catch basin and drainage ditch adjacent to SA 36. Following site investigations, the drainage ditch adjacent to SA 36 and adjacent soils were excavated by USAEC-NED to address the sediment contamination in the storm drain and catch basin. The site was recommended for NFA and a Draft Closure Report was issued in January 1995. The recommendation was based on historical information regarding the use of the site, visual observations, and subsequent site investigations. The building currently operates as a maintenance shop for general DPW activities.

7.1.11 Former Underground Storage Tanks Associated with Buildings 2648 and 2650, Study Area 58

Buildings 2648 and 2650, two former World War II-era wooden structures, each contained 1,000 gallon fuel oil USTs. The USTs were removed in 1990 in conjunction with the partial demolition of the buildings. Both buildings were completely demolished in March 1993. Contaminated soil was removed during the 1990 tank removals and backfilled with clean soil. Additional investigations occurred at SA 58 to determine whether residual contamination remained in the soil surrounding the historic UST locations. Residual contamination from the tank removals was not identified. A NFA decision was approved for SA 58 in November 1995.

7.1.12 AREE 65, Asbestos Survey

The asbestos survey, AREE 65, identified ACM in four industrial buildings within the proposed lease parcel, Buildings 2601, 2613, 2681, and 2728 and in the Locust Housing Area, Buildings 547-560. Materials containing asbestos include pipe fittings and wrapped paper pipe insulation on domestic hot water lines, insulation on HVAC equipment, and vinyl floor tile and associated mastic. Materials not sampled, but assumed to contain asbestos, include roofing sealant, wall board, transite panels, and vinyl floor tile and associated mastic (Arthur D. Little, 1995a).

7.1.13 AREE 67, Radon Survey

The Final Radon Survey Report, Aree 67, summarized the results of radon tests conducted on Fort Devens from 1990 to 1991. The following buildings within the proposed lease parcel were included in the radon survey: 547-560 (Locust Housing Area), 2601, 2680, and 2729 (Vail Dental Clinic). Only two housing units within Locust Housing, units 547B and 548A, had radon levels that exceeded the U.S. Environmental Protection Agency's (EPA's) annual average action level of 4 picoCuries per Liter (pCi/L). Building 547B had a radon level of 6.3 pCi/L and Building 548A had a radon level of 5.0 pCi/L. Building 2680 had a radon level of 4.3 pCi/L. Buildings 2601 and 2729 did not contain radon levels that exceeded the EPA's annual average action level.

7.1.14 AREE 68, Lead-Based Paint Survey

Documentation does not exist for determining the presence of LBP in buildings within the proposed lease parcel. Since the buildings were constructed during the early 1940s and 1960s, there is a potential for LBP throughout the buildings.

7.1.15 Radiation Survey

Building 2680, was identified as potentially containing radiation during the Industrial Radiation Survey Historical Data Review conducted by the U.S. Army Center for Health Promotion and Preventative Medicine (CHPPM 1994). The building was surveyed for potential radiation in November 1995 and no radiation was detected.

7.1.16 Unexploded Ordnance Survey

The USACE conducted an archival search for areas containing UXO on the Main and North Posts at Fort Devens. The archival investigations identified 26 sites that were potentially contaminated with UXO. One site, identified as TA 11, Area 19, was within the proposed lease parcel on Lake George Street. A survey was conducted in the area and no UXO was found. The area has been recommended for NFA.

7.2 Adjacent Properties

7.2.1 AREE 61N, Test Measurement and Diagnostic Equipment Area

Building 3605 is located on Patton Road, near Jackson Gate. During the AREE 61 investigations, Building 3605 was identified as AREE 61N because the TMDE division occasionally used radioactive material for testing purposes. According to

Army personnel any radioactive waste generated was managed in accordance with Army and Nuclear Regulatory Commission requirements. AREE 61N was approved for NFA in October 1995. The building contains a septic tank located at the south end of the building and a 1,500-gallon No. 2 fuel oil UST. The building is located within the BOP parcel and will be managed by the BOP (Arthur D. Little, 1995c).

7.2.2 Historical Motor Pool and Gas Station, SA 43K, AREE 61O, AOC 63AX, and AREE 69V (Buildings 2517 and 2514)

Buildings 2517 and 2514, a historical motor pool and gas station, are located on an access road off Patton Road behind golf course fairway No. 17. Investigations at the historical gas station, designated SA 43K, prompted the detection and removal of a 5,000-gallon UST by ATEC Environmental in 1992. Sampling results indicated that contamination evident during the UST excavation was removed. SA 43K was approved for NFA in January 1995.

The gasoline pumphouse contains a drain line that may have lead to a dry well located 13 feet from the back of the pumphouse. A 1952 sanitary sewer map indicated that the dry well was never found during a site investigation and was subsequently buried under the asphalt. Due to the historical review of the 1952 sanitary sewer map and dry well investigations at AREEs 61F, 61P, and 61AF, which were determined NFA, the dry well at the historical gas station did not undergo further investigations.

In addition to reviewing previous activities at the historical motor pool, designated AREE 61O, a previously removed 1,000-gallon waste oil UST was identified on the southern side of Building 2517. The UST, reviewed during the AREE 63 investigations, was installed in 1980 and removed by Environmental Engineering and Geotechnics, Inc., in 1989. The area, previously identified as AREE 63AX and now identified as AOC 63AX, is currently undergoing a remedial investigation due to residual contamination found in the area of the former waste oil UST. Therefore AREE 61O has been referred to the AOC 63AX investigations.

A historical spill also occurred in the area surrounding Building 2517 in 1987. The spill, which consisted of approximately 20 gallons of diesel fuel, occurred on the asphalt parking lot just south of Building 2517. The spill resulted from changing filters on the dispensing unit of a tank truck while the unit was full. The spill was limited to the paved parking lot and did not contaminate surrounding soil. AREE 69V was approved for NFA in October 1995 (Arthur D. Little, 1995e).

7.2.3 Study Area 43P and AREE 61T, Historical Gas Station and Motor Pool

Building 622, a U.S. Army Reserves' storage building, is identified as a historical motor pool and gas station, AREE 61T and SA 43P, respectively. The area is located on the corner of Sherman Avenue and Grant Road.

A historical gas station, AREE 43P, existed in the area prior to 1945. The gas station was located on Sherman Avenue, approximately 150 feet northeast of the intersection of Givry Street and Sherman Avenue. It consisted of a pump island, a small gasoline pumphouse, and a 5,000-gallon UST. Motor pool operations were discontinued during the late 1940s or early 1950s. The UST was reportedly removed prior to 1952 and installed at Building 614, identified as SA 43I. Field investigations conducted in the historical gas station area did not identify additional USTs or residual contamination. AREE 61T and SA 43P was approved for NFA in October 1995 (Arthur D. Little, 1995a).

7.2.4 AREE 69H and 69L, Past Spill Sites

AREEs 69H and 69L refer to the same spill location, and were investigated during the AREE 69 study. The spill incident occurred in 1988 and referred to the identification of three 55-gallon drums of water treatment chemicals found in the woods off Hospital Road, just north of the proposed lease parcel. The drums were found in good condition and ground contamination was not identified. The drums were disposed of by the Fort Devens EMO, AREEs 69H and 69L were approved for NFA in October 1995 (Arthur D. Little, Inc, 1995e).

7.2.5 AREE 65, Asbestos Survey

Buildings adjacent to the proposed lease parcel contain ACM. These buildings include: 2636, 2551, 2686, 2687, 2688, 2730, 2732, and the Oak Hill and Spruce/Maple Housing Areas. The following materials were found to contain asbestos: pipe fittings and wrapped paper pipe insulation on domestic hot water lines, insulation on HVAC equipment, and 12 by 12-inch vinyl floor tile and associated mastic. Materials not sampled, but assumed to contain asbestos include: roofing tar/paper, roofing sealant, transite wallboard, and 9 by 9-inch vinyl floor tile and associated mastic (Arthur D. Little, 1995a).

7.2.6 AREE 67, Radon Survey

The Oak Hill and Spruce/Maple Housing Areas were both surveyed during the Fort Devens Radon Survey conducted form 1990 to 1991. Seven housing units within the Oak Hill Housing area and two housing units within the Spruce/Maple Housing Area contain radon levels that exceeded the EPA's annual average action level of 4 pCi/L. The housing units and their corresponding radon results are: 535B (5.6 pCi/L), 536A (5.8 pCi/L), 536B (6.3 pCi/L), 540A (5.5 pCi/L), 540B (5.1 pCi/L), 543B (4.0 pCi/L), 544A (4.2 pCi/L), 580 (8.0 pCi/L), and 586 (4.4 pCi/L).

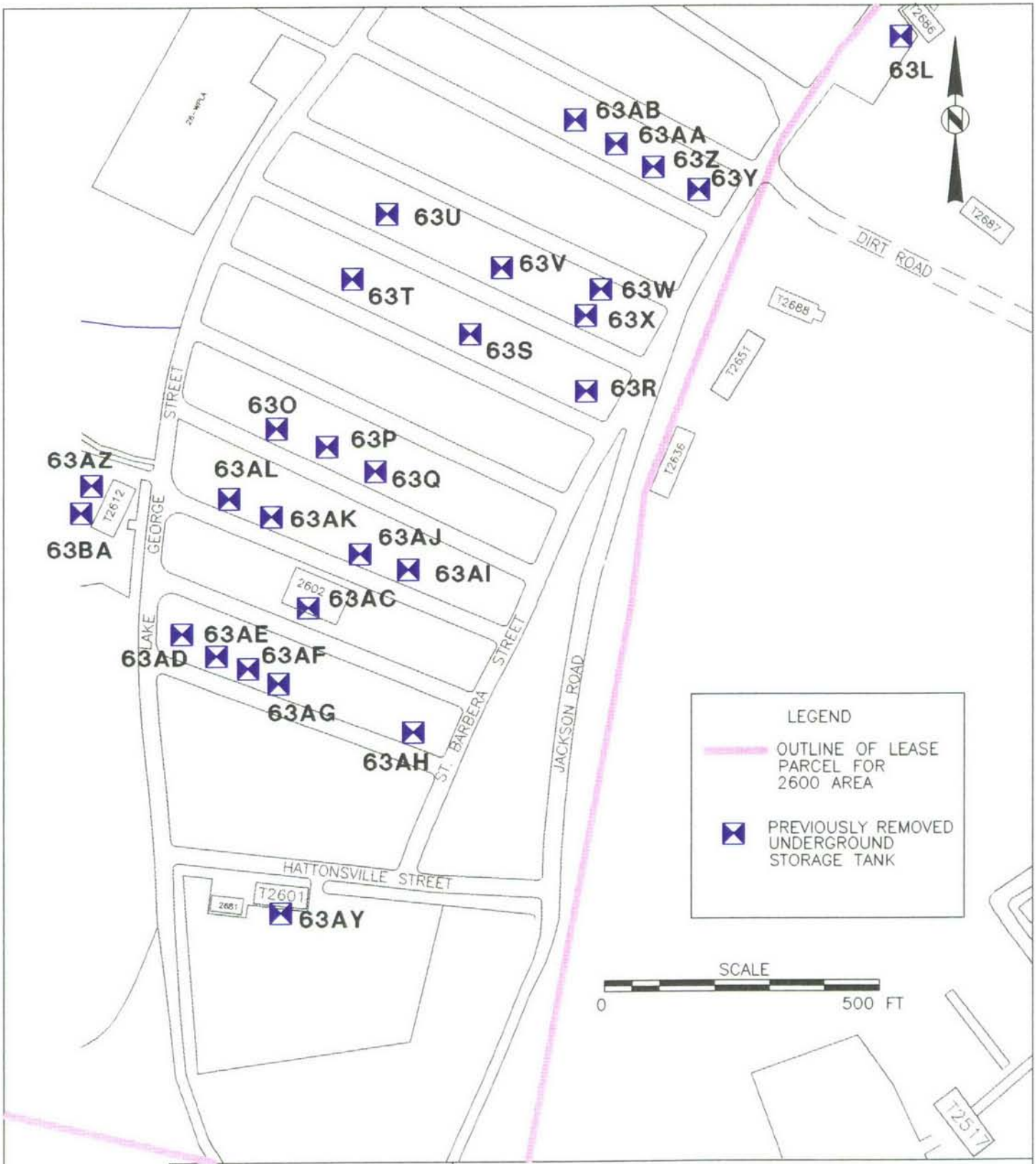
7.2.7 AREE 68, Lead-Based Paint

Documentation does not exist for determining the presence of LBP in buildings adjacent to the proposed lease parcel. Since the buildings were constructed during the early 1940s and 1960s, there is a potential for LBP throughout the buildings.

7.2.8 Unexploded Ordnance Study

The USACE conducted an archival search for areas containing UXO on Main and North Posts at Fort Devens. The archival investigations identified 26 sites within the North and Main Posts that were potentially contaminated with UXO. Four of the 26 sites identified were adjacent to the proposed lease parcel (U.S. Army Environmental Center [USAEC], 1995c).

The four sites were identified as Site 13 (Area 11), Site 14 (Area 17), Site 16 (Area 11), and Site 15 (Area 1). Following UXO investigations, Sites 14 and 15 have been approved for NFA. Sites 13 and 16 have been recommended for NFA.



Arthur D Little		TITLE: FIGURE 2 PREVIOUSLY REMOVED USTs IN THE PROPSOED LEASE PARCEL	
APPROVALS	DATE		
DRAWN MSB	7/26/95	PREPARED FOR: USAEC	SCALE: 1 IN. = 250 FT.
CHECKED			
QA/CONTROL		DATE: JULY 1995	DWG. NO.: 67073-010
TECH REVIEW			
PROJ MNGR		SOURCE: USAEC, ADL INC.	SHEET 1 OF 1

Table 7-1: Previously Removed Underground Storage Tanks in the 2600 Area

AREE	Building	Contractor	Date Removed	Size/ Contents	Approved NFA
63L	2686	ATEC	1/24/92	1,000-Gallon No. 2 Fuel Oil	X
63O	2623	Franklin	6/26/90	1,000-Gallon No. 2 Fuel Oil	X
63P	2324	Franklin	6/26/90	1,000-Gallon No. 2 Fuel Oil	X
63Q	2626	Franklin	6/26/90	1,000-Gallon No. 2 Fuel Oil	
63R	2637	Franklin	6/26/90	1,000-Gallon No. 2 Fuel Oil	X
63S	2640	Franklin	6/26/90	1,000-Gallon No. 2 Fuel Oil	X
63T	2643	Franklin	6/26/90	1,000-Gallon No. 2 Fuel Oil	X
63U	2644	Franklin	6/27/90	1,000-Gallon No. 2 Fuel Oil	X
63V	2647	Franklin	6/27/90	1,000-Gallon No. 2 Fuel Oil	X
63W	2649	Franklin	6/27/90	1,000-Gallon No. 2 Fuel Oil	X
63X	2649	Franklin	6/27/90	1,000-Gallon No. 2 Fuel Oil	X
63Y	2659	Franklin	6/27/90	1,000-Gallon No. 2 Fuel Oil	X
63Z	2660	Franklin	6/27/90	1,000-Gallon No. 2 Fuel Oil	X
63AA	2661	Franklin	6/27/90	1,000-Gallon No. 2 Fuel Oil	X
63AB	2662	Franklin	6/27/90	1,000-Gallon No. 2 Fuel Oil	X
63AC	2602	Zecco	1/13/88	1,000-Gallon No. 2 Fuel Oil	X
63AD	2603	Zecco	12/29/87	1,000-Gallon No. 2 Fuel Oil	X

Table 7-1: Previously Removed USTs in the 2600 Area

AREE	Building	Contractor	Date Removed	Size/ Contents	Approved NFA
63AE	2604	Zecco	12/29/87	1,000-Gallon No. 2 Fuel Oil	X
63AF	2605	Zecco	12/30/87	1,000-Gallon No. 2 Fuel Oil	X
63AG	2606	Zecco	12/87	1,000-Gallon No. 2 Fuel Oil	X
63AH	2608	Zecco	12/30/87	1,000-Gallon No. 2 Fuel Oil	X
63AI	2618	Zecco	1987	1,000-Gallon No. 2 Fuel Oil	X
63AJ	2619	Zecco	1987	1,000-Gallon No. 2 Fuel Oil	X
63AK	2621	Zecco	12/29/87	1,000-Gallon No. 2 Fuel Oil	X
63AL	2622	Zecco	12/29/87	1,000-Gallon No. 2 Fuel Oil	X
63AY	2601	Franklin	12/5/89	1,000-Gallon Waste Oil	X
63AZ	2613	Franklin	12/5/89	1,000-Gallon No. 2 Fuel Oil	X
63BA	2613	Franklin	12/5/89	1,000-Gallon No. 2 Fuel Oil	X

8.0 Relevant Information From Records Review, Interviews, and Aerial Photographs Review

Potential hazardous substances and petroleum product releases within the proposed lease parcel and adjacent properties were reviewed through a combination of the document review described in Sections 3.2 and 3.3, and interviews and visual inspections described in Sections 3.5 and 3.6. The aerial photographs and historical drawing review is described in Section 3.4. The hazardous substances and petroleum products management practices and potential impacts are described in Section 7.0. No new AOCs were identified either within the proposed lease parcel or in adjacent properties as a result of the information review.

9.0 Ongoing Response Actions

9.1 Proposed Lease Parcel

9.1.1 Study Area 13, Lake George Street

Although SA 13, the Lake George Street Landfill, had previously been recommended for NFA under SA 13 activities and closed under Massachusetts regulations, it was decided by Army personnel that landfills located on Fort Devens would be closed according CERCLA requirements. Therefore, the Lake George Street Landfill has been included in the Fort Devens Landfill Consolidation Study at Fort Devens (USACE-NED, 1995a).

9.1.2 Historical Motor Pool and Gas Station, AREE 61P and SA 43L

The dry well associated with Building 2681, the cesspool and the floor drains associated with Building 2601 were investigated by OHM Remedial Services Corporation during the spring of 1995. Removal action occurred at both the dry well and the cesspool and an IRA Completion Statement and a RAO were issued during the summer 1995. Prior to future site renovations or demolition, a notice of soil contamination in under floor drains should be issued and the drains should be properly closed according to state requirements. AREE 61P has been recommended for NFA (Arthur D. Little, 1995c).

9.1.3 Historical Motor Pool and Gas Station, AREE 61S and SA 43O

The historical gas station, SA 43O is undergoing ground water sampling activities to further identify the extent of ground water contamination associated with the gas station. An NFA decision was recommended contingent upon future ground water sampling results (ABB, 1994a).

9.1.4 AREE 69B, Past Spill Site at Building 2602

The existing ground water monitoring wells located at AREE 69B continue to be sampled to further identify the potential for residual ground water contamination associated with the historical spill of No. 2 fuel oil. Ground water at AREE 69B continues to be monitored (Arthur D. Little, 1995e).

9.1.5 AREE 69K, Past Spill Site on Lake George Street Wash Rack

Soil removal activities were conducted at AREE 69K by OHM in 1995. A Draft Closure Report was issued in 1995 and the site was recommended for NFA (Arthur D. Little, 1995e).

9.2 Adjacent Properties

9.2.1 Previously Removed Underground Storage Tank, Area of Contamination 63AX (Building 2517)

Waste oil contaminants were detected in the ground water at AREE 63AX. The contaminants included petroleum byproducts and volatile organic compounds that exceeded the MCP standards. The site is recommended for inclusion in the IAG process based upon the contaminated ground water. The site was designated AOC 63AX and will undergo the remedial investigation/feasibility study process (Arthur D. Little, 1995b).

10.0 Recommendation as to Suitability to Lease

Following an inspection of the proposed lease parcel and adjacent areas and a review of documentation for the proposed lease parcel and adjacent areas, as well as a review of the anticipated activities within the proposed lease parcel, it is recommended that the 2600 Area be found suitable to lease to the Massachusetts Government Landbank for business and administrative purposes. The results of the review of the documentation on adjacent areas did not identify potential impacts on the proposed lease parcel. Within the proposed lease parcel, the potential environmental concerns are ACM, LBP, radon, and five ongoing response actions. In accordance with DoD guidance, a hazardous substance notice is needed for the presence of petroleum products stored for more than one year on the proposed lease parcel. The notice includes historical and existing USTs. A hazardous substance notice is also required for historical spill locations, a historical landfill within the proposed lease parcel, the presence of ACM and radon, and potential presence of LBP in a number of buildings within the proposed lease parcel.

11.0 Selected References

ABB Environmental Services, Inc. 1993a. *SI Data Packages for Groups 2, 7 and Historical Gas Stations, Data Item A009, Fort Devens, MA.* January.

ABB Environmental Services, Inc. 1993b. *Fort Devens Site Investigation Report, Groups 2, 7 and Historical Gas Stations.* May.

ABB Environmental Services, Inc. 1994a, *Supplemental Site Investigation Data Packages for Groups 2, 7 and Historical Gas Stations, Data Item A009.* January.

ABB Environmental Services, Inc. 1994b. *Final Contract Design Plans and Specifications. Clean-Out and Closure of Lake George Street Vehicle Wash Area.* January.

ABB Environmental Services, Inc. 1994c. *No Further Action Under CERCLA. Study Area 43L Historical Gas Station Sites.* January.

ABB Environmental Services, Inc. 1994d. *No Further Action Under CERCLA. Study Area 43M Historical Gas Station Sites.* January.

ABB Environmental Services, Inc. 1994e. *Draft No Further Action Under CERCLA. Study Area 13 Landfill No. 9.* May.

ABB Environmental Services, Inc. 1995. *No Further Action Under CERCLA. Study Area 43N Historical Gas Station Sites.* January

Arthur D. Little, Inc. 1994a. *Community Environmental Response Facilitation Act (CERFA) Report, Fort Devens Facility, Fort Devens, Massachusetts.* April.

Arthur D. Little, Inc. 1994b. *Final Radon Survey Report (AREE 67) Base Realignment and Closure Environmental Evaluation (BRAC EE) Part II Fort Devens, Massachusetts.* May.

Arthur D. Little, Inc. 1994c. *Final Storm Sewer Evaluation (AREE 70) Report, Base Realignment and Closure Environmental Evaluation (BRAC EE), Fort Devens, Massachusetts.* June.

Arthur D. Little, Inc. 1995a. *Final Asbestos Survey Report (AREE 65) Base Realignment and Closure Environmental Evaluation (BRAC EE) Part II Fort Devens, Massachusetts.* May.

Arthur D. Little, Inc. 1995b. *Draft Lead-Based Paint Survey, Base Realignment and Closure Environmental Evaluation (BRAC EE), Fort Devens, Massachusetts.* May.

Arthur D. Little, Inc. 1995c. *Final Maintenance and Waste Accumulation Areas (AREE 61) Report Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts.* June.

Arthur D. Little, Inc. 1995d, *Final Previously Removed Underground Storage Tank (AREE 63), Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts.* June.

Arthur D. Little, Inc. 1995e. *Final Past Spill Sites Report (AREE 69) Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens. Massachusetts.* June.

Engineering Technologies Associates, Inc. 1994. *Detailed Flow Model for Main and North Post, Fort Devens, Massachusetts, Volumes I and II,* September.

ENSR Consulting & Engineering. 1993. *Historical Inventory Survey, Fort Devens, Massachusetts.* May.

ENSR Consulting & Engineering. 1994. *Draft Environmental Impact Statement, Fort Devens, Massachusetts, Disposal and Reuse,* September.

OHM Remedial Services Corporation. 1995a. *Removal Action, Draft Closure Report.* January.

OHM Remedial Services Corp. 1995b. *Draft Final Closure Report, UST 2627, Fort Devens, Massachusetts.* March.

Roy F. Weston, Inc. 1992. *Enhanced Preliminary Assessment, Fort Devens, Massachusetts.* April 1992.

SEA Consultants. 1994. *Nonresidential Floor Drain Evaluation Study, Volumes I and II, Fort Devens, Massachusetts.* February.

U.S. Army Center for Health Promotion and Preventative Medicine (CHPPM). 1994. *Industrial Radiation Survey Historical Data Review, Review No. 27-43-2453-94.* September.

U.S. Army Corps of Engineers, NED. 1995a. *Issues Paper, Management of Debris Disposal Areas, Fort Devens, Massachusetts.* March.

U.S. Army Corps of Engineers, Huntsville Division. 1995b. *U.S. DoD BRAC Ordnance, Ammunition, and Explosives Archives Search Report, Fort Devens, Massachusetts.* May.

U.S. Army Corps of Engineers, New York District, 1992. *Feasibility Study for Utility Realignment, Fort Devens, Massachusetts.* August.

12.0 Selected Map and Photograph References

Arthur D. Little, Inc. 1994. *Fort Devens Base Map* (DV-BASE.DWG), Fort Devens, Massachusetts.

Environmental Protection Agency. 1991. *(EPIC) Installation Assessment, Fort Devens, Ayer, MA, Volume II.* September.

U.S. Army Corps of Engineers. 1954. New England Division. *Basic Information - Master Planning, Detail Site and Building Use Map, Fort Devens, Massachusetts.*

U.S. Army Corps of Engineers. 1986. New England Division. *General Site Map.* Fort Devens, Massachusetts.

U.S. Army, Fort Devens, Massachusetts. 1957. *Fort Devens Training Areas and Ranges.* Fort Devens, Massachusetts.

U.S. Army, Fort Devens, Massachusetts. 1961. *Ranges and Training Areas. Fort Devens, Massachusetts.* Range Control.

U.S. Army, Fort Devens, Massachusetts. 1967. *Ranges and Training Areas. Fort Devens, Massachusetts.*

War Department. 1919. *General Map, Camp Devens, Massachusetts.* Prepared by the Construction Division.

War Department. 1920. *Property Map, Camp Devens, Massachusetts.* Prepared by the Construction Division.

War Department. 1941. *General Layout Plan, Fort Devens, Massachusetts.* Office of Constructing Quartermaster, Fort Devens, Massachusetts.

Finding of Suitability to Lease (FOSL)

Fort Devens
(2600 Area)

Fort Devens, Massachusetts

December 1995

1.0 Purpose and Finding

a. The purpose of this FOSL is to document a decision made pursuant to Department of Defense (DoD) FOSL guidance that property is suitable to lease.

b. Based on results detailed in the Environmental Baseline Survey (EBS), I have determined that the 2600 Area is suitable for lease to the Massachusetts Government Landbank for a period of 30 years, to be used for innovation technology and business purposes.

2.0 Property Description

The proposed lease parcel consists of 166 acres and extends from Givry Street to the intersection of Lake George Street and Patton Road as the northern and southern boundaries of the parcel. The eastern and western boundaries of the parcel extend from the edge of the U.S. Fish and Wildlife Lease Parcel along the Nashua River to Jackson Road. The lease parcel also includes the Locust Housing Area located south of Hospital Road, in between Lake George Street and the boundary of the U.S. Fish and Wildlife Service's parcel along the Nashua River.

3.0 Environmental Condition of Property

An analysis of the environmental condition of the site proposed for lease has been made by the U.S. Army Environmental Center in the form of an EBS for the 2600 Area. The EBS was conducted in accordance with the requirements of the DoD FOSL guidance for conducting an EBS.

Environmental conditions of potential concern identified on the proposed lease parcel include the presence of asbestos and radon, and the potential presence of lead-based paint (LBP). The following building materials were found to contain asbestos: pipe lagging and fittings, and vinyl floor tile and associated mastic. Materials assumed to contain asbestos include: roofing sealant, wall board, transite panels, and vinyl floor tile and associated mastic. No data on LBP exist for the buildings, however, due to the age of the buildings, there is a possibility of LBP. Visual inspections noted that

painted surfaces were generally in good condition. Possible exposure to proposed lease parcel workers was determined minimal due to the condition of the ACM and LBP. Two housing units and one industrial building contained levels of radon that exceeded the U.S. Environmental Protection Agency's annual average action level. Five areas within the proposed lease parcel are undergoing response actions. They include: Study Area (SA) 13, Area Requiring Environmental Evaluation (AREE) 61P/SA 43L, AREE 61S/SA 43O, AREE 69B, and AREE 69K. Petroleum products were stored on the proposed lease parcel. This includes 28 previously removed underground storage tanks (USTs) and 6 existing USTs. No releases from the existing USTs have been documented.

Based upon the EBS and the references cited therein, the proposed parcel is suitable for lease for innovation technology and business purposes. In accordance with the DoD FOSL guidance and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 120(h), hazardous substance notices will be given for the existing and previous USTs, historical spill locations, ongoing response actions, presence of asbestos and radon, and potential presence of LBP within the proposed lease parcel.

Adjacent properties do not pose a risk to human health or the environment on the proposed lease parcel. Although hazardous substances and/or petroleum products were stored for a year or more on adjacent properties, there was no environmental impact on the proposed lease parcel. Only one adjacent area, Area of Contamination 63AX, a previously removed UST at Building 2517, is undergoing a Remedial Investigation/Feasibility Study due to contaminated ground water.

4.0 Regulatory Comment

Regulatory agencies were notified at the initiation of the EBS and FOSL.

5.0 Lease Provisions

a. Hazardous substance and petroleum product notices, as provided in Section 3.0, will be given.

b. Provisions will be included in the lease to ensure that the requirements of Section IV (E) and (G) of the DoD FOSL policy are met.

c. The model lease provisions attached to the DoD FOSL policy will be included in the lease.

d. A notice will be given for the presence of asbestos and radon, and potential presence of LBP within the proposed lease parcel. This notice will include a statement about the responsibilities of the lessee if the use of the lease parcel changes to residential.

e. The Army shall have access to the property in any case in which a response action or corrective action is found to be necessary after the date of the property lease, or such access is necessary to carry out a response action or corrective action on adjacent property.

f. When the property is transferred, it will be transferred in accordance with Section 37 of the Fort Devens Federal Facility Agreement.

6.0 Conclusion

Based on the above information, I conclude that the DoD requirements to reach a Finding of Suitability to Lease have been met, and therefore, the 2600 Area can be used by the Massachusetts Government Landbank pursuant to the proposed lease. The CERCLA 120(h) (l) notice requirements and the lease restrictions discussed above must be placed in the lease.

Arthur T. Dean
Major General, USA
Deputy Chief of Staff for Personnel and
Installation Management

Comment and Response Package

U.S. Environmental Protection Agency (USEPA) New England Division and Massachusetts Department of Environmental Protection (MADEP) Comments on the Draft Environmental Baseline Survey, Proposed Lease Parcel 2600 Area

Submitted to Fort Devens Base Realignment and Closure Division, Environmental Management Office

Prepared for:

U.S. ARMY ENVIRONMENTAL CENTER
ABERDEEN PROVING GROUND, MARYLAND 21010

Requests for this document must be referred to:
Commander, U.S. Army Environmental Center
Aberdeen Proving Ground, Maryland 21010

December 1995

Response to USEPA New England Division Comments
Draft Environmental Baseline Survey, Proposed Lease Parcel 2600 Area

General Comments

Comment

1. Section 37 of the soon to be amended Fort Devens Federal Facility Agreement (FFA) will need to be incorporated into all final leases and transfer documents to ensure that the Army will have access to these parcels in the event that future investigations and/or remedial actions are required under CERCLA. This has previously been agreed upon by counsel for the Army and EPA-New England. I have attached a copy for your reference. The language we would like to see in the FOSL is referenced in the above cover letter and comments below. The inclusion of this language is very important in that there are five ongoing response actions in this parcel. In addition, could you please provide us with a timetable for signature of these amendments?

Response

1. Reference to Section 37 of the Fort Devens Federal Facility Agreement (FFA) has been included in Section 5.0, Lease Provisions, of the 2600 Area FOSL. When the property is transferred, it will be transferred in accordance with Section 37 of the Fort Devens FFA.

Comment

2. Please place a general statement in the beginning of this document or in appropriate sections as well as all lease and transfer documents regarding whose responsibility it will be to mitigate, manage and/or close under the appropriate regulations "other" environmental hazards such as: asbestos, lead based paint, radon, dry wells, floor drains, cesspools, and USTs. Often times tasks such as those referenced above are mentioned, but it is not clear whether the Army or the LandBank will take care of them.

Response

2. Responsibilities of the lessee will be included in the hazardous substances notices that will accompany all leases. Future responsibilities to mitigate, manage, and/or close environmental conditions will be the responsibility of the lessee.

Comment

3. For those adjacent areas that have potential or actual contamination, a brief assessment should be made of the potential for lease parcel impacts.

Response

3. Adjacent areas that have the potential to impact the proposed lease parcel are described in Section 7.2. This section describes those areas that have been either approved for, recommended for NFA, or require further action.

Specific Comments

Comment

4. **Page 6-2, Section 6.2.1:** As I understand it, this property will be transferred to the USF&WS, not leased.

Response

4. The property will be transferred and the EBS has been updated.

Comment

5. **Page 6-2, Section 6.2.3, 2nd Paragraph:** "A historical gas station existed..."

Response

5. The EBS has been updated.

Comment

6. **Page 6-3, Section 6.2.6:** An update on the UXO survey findings should be included in the final version of this document, if available.

Response

6. Final UXO results have been included in the 2600 Area EBS.

Comment

7. **Page 7-7, Section 7.2.3, 2nd Paragraph:** "A historical gas station, AREE 43P, existed..."

Response

7. The EBS has been updated.

Comment

8. **Section 9.0:** A brief update of the status of these ongoing response actions should be made in the final document, if there are any changes.

Response

8. Updates of the status of all ongoing response actions have been included in Section 9.0 of the 2600 Area EBS.

Comment

9. **FOSL, Section 3.0: a.** How can you say children and adolescents will not be exposed to asbestos and lead paint, when this area currently houses colleges and a charter school? Please clarify. **b.** Is a UXO notice needed? **c.** Please make it clearer that AOC 63AX is an adjacent property.

Response

9. **a.** The FOSL has been corrected to state that possible exposure to parcel workers will be minimal due to the good condition of ACM and LBP. It should also be noted that the Charter School is within Building 2602 which was constructed in 1989. **b.** A UXO notice is not needed because the potential UXO site, TA 11, was recommended for NFA. **c.** The FOSL has been updated to state that AOC 63AX is an adjacent area.

Comment

10. **FOSL, Section 5.2 e.:** As mentioned in our comments on the other EBS/FOST/FOSLs, please reference Section 37 of the soon to be amended FFA in this Section by adding the following language: "It is noted that the Army and EPA are in the process of amending Section 37 of the Fort Devens Federal Facility Agreement to ensure that transfers of property will not adversely affect the Fort Devens clean-up and to ensure that public health and safety will be protected. The revised Section 37, as contained in the EPA comment letter, dated September 27, 1995 and made part of the record for this FOSL, is incorporated by reference herein."

Response

10. Reference to Section 37 of the Fort Devens Federal Facility Agreement (FFA) has been included in Section 5.0, Lease Provisions, of the 2600 Area FOSL. When the property is transferred, it will be transferred in accordance with Section 37 of the Fort Devens FFA.

Comment

11. **FOSL, Section 6.0:** Lewis D. Walker has retired (7/3/95). Please change the signature block to his replacement, or stand-in.

Response

11. The FOSL signature block has been changed to Arthur T. Dean, Major General, U.S. Army.

Response to MA Department of Environmental Protection Comments Draft Environmental Baseline Survey, Proposed Lease Parcel 2600 Area

General Comments

Comment

1. Please note that the map provided in the Environmental Baseline Survey (EBS) does not depict any of the EPIC sites? EPIC sites within the proposed lease parcel include SABA, SABB, and SABG.

   SABA/SABB
   The Army Corps of Engineers (ACOE) has determined that a UXO survey is unnecessary at sites SABA and SABB because only areas where ordnance has been found, or training areas that also had designated ranges have been recommended for a UXO survey. Therefore, no definitive determination regarding the presence or absence of UXO in these areas can be made.

   SABB
   In May 1995, the Department recommended a magnetometer survey at SABB to search for buried metal objects, a review of historical site plans to determine the uses of a building destroyed prior to 1943, sampling and analysis, and a UXO survey because the area was designated as a training area on the 1954, 1957 and 1961 range maps. Historic site plans indicate the destroyed building was probably part of a hospital complex that existed in 1919. The Army has stated that surface debris at SABB will be addressed as part of the landfill consolidation plan, and that sampling and analysis will be recommended if obvious contamination is found during debris removal. The Department believes that sampling and analysis is necessary to ensure the disposal site has not impacted the environment. Without such sampling, a determination cannot be made as to whether the site is CERFA clean.

   SABG
   Based on field visits to SABG by project team personnel on March 28, 1995 and August 22, 1995, drums and debris were observed. EPA and DEP determined that sampling and analysis was necessary. This sampling will be needed to make a determination of whether or not this site is contaminated and how to handle it under the Federal Facility Agreement.

Response

1. The EPIC sites were reviewed during basewide investigations at Fort Devens and issues associated with EPIC sites were included in previous Fort Devens investigations. If previous investigations existed on the EBS parcel, then they were reviewed during the EBS.

Comment

2. **Page 2-2, Table 2-1, USTs.** Buildings 2613, 2681, 2682, 2731 and the Lake George Street substation are listed as "unheated". If the USTs associated with these buildings are not being used, they should be removed per 527 CMR 9.00. Any UST left in the ground is a potential source of contamination.

Response

2. The UST at Building 2613 was removed. Buildings 2681 and 2682 are historical gasoline pump houses and are therefore unheated and never had a fuel oil UST. Building 2731 is a open brick bus station and never had a fuel oil UST.

Comment

3. **Page 7-2, Paragraph 1, AREE 61P.** The EBS states that AREE 61P was recommended for No Further Action (NFA). AREE 61P was scheduled for a removal action, but the Department does not have an NFA document and/or closure report. The documentation will be needed to make a determination regarding NFA at this site.

Response

3. Removal actions associated with the cesspool, drywell, and indoor floor drains have occurred at AREE 61P. An Immediate Removal Action (IRA) Completion Statement and a Response Action Outcome (RAO) will be issued in November 1995. AREE 61P has been recommended for NFA.

Comment

4. **Page 7-2, Paragraph 2, AREE 61Q.** Please note that although AREE 61Q has been approved for NFA, a UIS closure is needed for the cesspool at the site in order to be in compliance with Massachusetts regulations.

Response

4. AREE 61Q was approved for NFA in October 1995. Comment noted, UIS closure is a compliance action.

Comment

5. **Page 7-3, Paragraph 2, SA 45.** The EBS states that Study Area 45, the Lake George Vehicle Wash Area, was recommended for No Further Action. The Final SI Data Package for Groups 2 & 7, May 1995, indicates that no further investigation would be needed at the site. A Closure Report was issued after the grit chamber and oil-water separator were closed in June 1994 and the regulatory agencies agreed that the actions taken were satisfactory. However, because no NFA was issued for this site, there is no formal documentation on file at the Department. Please indicate what documentation the Army is using for this NFA determination.

Response

5. Study Area 45 was determined a no further action site based on worked conducted by GAS Environmental in 1994. There is no NFA document on file and the EBS has been corrected.

Comment

6. **Page 7-3, Paragraph 4, AREE 61AR.** The Department does not concur with an NFA designation for AREE 61R, a historical car wash on Lake George Street, due to high levels of thallium found in the soil.

Response

6. AREE 61R was approved for NFA in October 1995 by both the regulators and the Army.

Comment

7. **Page 7-3, Paragraph 6, 43O.** Please note that the Department does not concur with the NFA decision for SA 43O, Historic Gas Station. The potential for groundwater contamination exists at this site and has not been addressed as requested by the BRAC Cleanup Team (RCT).

Response

7. Study Area 43O, although it has been recommended for NFA, the decision is contingent upon ground water sampling results. This is stated in the EBS.

Comment

8. **Page 7-4, Paragraph 2, 61AN.** Please note that the Department does not concur with the NFA decision for AREE 61AN, the Vail Dental Clinic. The Department recommended an investigation at the point where the floor drain located in the building discharges into the storm water system to determine if a release has occurred. The floor drain discharges directly to the storm water system, a violation of the National Pollutant Discharge Elimination System (NPDES) regulations. Without this investigation, it is impossible to determine the significance of any release to the environment.

Response

8. AREE 61AN has been approved for NFA by both the regulators and the Army based on the fact that the building will be demolished for future site reuse.

Comment

9. **Page 7-4, Paragraph 3, AREE 63.** The Department requested information from the Army regarding AREE 63AC in order to make a final determination on the NFA recommendation. Until this information is received, the Department will be unable to concur with the NFA.

Response

9. AREE 63AC was approved for NFA in October 1995 by both the regulators and the Army.

Comment

10. **Page 7-5, Paragraph 2, SA 36.** The Department does not have any record of an NFA Document for this site.

Response

10. A Draft Closure Report was issued for Study Area 36 in January 1995 and the site has been recommended for NFA.

Comment

11. Please note that although AREE 61N has been approved for NFA, a UIS closure must be performed there to be in compliance with Massachusetts regulations.

Response

11. AREE 61N was approved for NFA in October 1995. Comment noted, UIS closure is a compliance action.

Final

Environmental Baseline Survey for Proposed Transfer Utilities

Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts

Prepared for:

U.S. ARMY ENVIRONMENTAL CENTER
ABERDEEN PROVING GROUND, MARYLAND 21010

Prepared by:

ARTHUR D. LITTLE, INC.
25 Acorn Park
Cambridge, Massachusetts 02140-2390

Requests for this document must be referred to:
Commander, U.S. Army Environmental Center
Aberdeen Proving Ground, Maryland 21010

December 1995

Final

Environmental Baseline Survey for Proposed Transfer Utilities

Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts

Program Manager, Robert Lambe — Date: 12-8-95

Task Manager, Richard Waterman — Date: 12/1/95

Submitted to

U.S. Army Environmental Center (USAEC)
Aberdeen Proving Ground, Maryland

Revision 1
December 1995

Arthur D. Little, Inc.
Acorn Park
Cambridge, Massachusetts
02140-2390

ADL Reference 67073-21

DAAA15-91-D-0016
Delivery Order 0013

This document is printed on recycled paper and is recyclable.

Table of Contents

Acronyms and Abbreviations v

Executive Summary vi

1.0 Introduction 1-1

2.0 Property Description 2-1
2.1 Proposed Transfer Systems 2-1
2.2 Adjacent Properties 2-1

3.0 Survey Methodology 3-1
3.1 Review of the Community Environmental Response Facilitation Act Report 3-1
3.2 Records Search - Utility Transfer Systems 3-2
3.3 Records Search - Adjacent Properties 3-3
3.4 Historical Drawings and Aerial Photograph Review 3-5
3.5 Interviews 3-5
3.6 Visual Inspections 3-5
3.7 Identification of Sources of Contamination on Adjacent Properties 3-6
3.8 Physical Inspections - Adjacent Properties 3-6
3.9 Sampling 3-6

4.0 Relevant Information Gained During Records Search 4-1

5.0 Title Search and Historical Land Use 5-1
5.1 Electrical Distribution System 5-1
5.2 Gas Distribution System 5-1
5.3 Potable Water System 5-1
5.4 Sanitary Sewer System 5-1

6.0 Description of Activities 6-1
6.1 Proposed Transfer Systems 6-1
6.1.1 Electrical Distribution System 6-1
6.1.1.1 Substations 6-1
6.1.1.2 Transformers 6-2
6.1.2 Gas Distribution System 6-3
6.1.3 Potable Water Distribution System 6-3
6.1.3.1 Water Supply Wells 6-4
6.1.3.2 Water Storage Tanks 6-4

6.1.4 Sanitary Sewer System 6-4
6.1.4.1 Wastewater Treatment Plant 6-5
6.1.4.2 Sewage Collection System 6-5
6.2 Adjacent Properties 6-6
6.2.1 Properties Adjacent to Electrical Distribution System 6-6
6.2.1.1 West Main Street Substation 6-6
6.2.1.2 Lake George Street Substation 6-6
6.2.1.2.1 AREE 61P/SA 43L, AREE 63AY, and AREE 69AM 6-6
6.2.1.2.2 AREE 61Q/SA 43M, AREE 63AZ, and AREE 63BA 6-7
6.2.1.2.3 AREE 63AG, AREE 63AI, and AREE 63AJ 6-7
6.2.1.2.4 SA 13 6-8
6.2.1.3 Patton Road Substation 6-8
6.2.2 Properties Adjacent to the Gas Distribution System 6-8
6.2.3 Properties Adjacent to the Potable Water System 6-8
6.2.3.1 Sheboken Well 6-8
6.2.3.2 Patton Well 6-9
6.2.3.3 Grove Pond Well 6-9
6.2.3.4 McPhearson Well 6-9
6.2.3.5 Water Storage Tanks 6-9
6.2.4 Properties Adjacent to the Sanitary Sewer System 6-10
6.2.4.1 Wastewater Treatment Plant 6-10
6.2.4.2 Sewage Lift Stations 6-10
6.2.4.2.1 Building 3812 Lift Station 6-10
6.2.4.2.2 Building 622 Lift Station 6-10
6.2.4.2.3 Building 1006 Lift Station 6-10
6.2.4.2.4 Building 1427 Lift Station 6-11
6.2.4.2.5 Building 3711 Lift Station 6-11
6.2.4.2.6 Building 3802 Lift Station 6-11

7.0 Hazardous Substances and Petroleum Products Management Practices and Potential Impacts 7-1
7.1 Proposed Transfer Parcel 7-1
7.1.1 Electrical Distribution System 7-1
7.1.1.1 Substations 7-1
7.1.1.2 Transformers 7-2
7.1.2 Gas Distribution System 7-3
7.1.3 Potable Water Distribution System 7-3
7.1.3.1 Water Supply Wells 7-3
7.1.3.2 Water Storage Tanks 7-3

7.1.4 Sanitary Sewer System 7-4
7.1.4.1 Wastewater Treatment Plant 7-4
7.1.4.2 Sewage Lift Stations 7-4
7.2 Adjacent Properties 7-5
7.2.1 Properties Adjacent to Electrical Distribution System 7-5
7.2.1.1 West Main Street Substation 7-5
7.2.1.2 Lake George Street Substation 7-5
7.2.1.2.1 AREE 61P/SA43L, AREE 63AY, and AREE 69AM 7-5
7.2.1.2.2 AREE 61Q/SA43M, AREE 63AZ, and AREE 63BA 7-6
7.2.1.2.3 AREE 63AG, AREE 63AI, and AREE 63AJ 7-7
7.2.1.2.4 SA 13, Lake George Street Landfill . . . 7-7
7.2.1.3 Patton Road Substation 7-7
7.2.2 Gas Distribution System 7-8
7.2.3 Potable Water Distribution System 7-8
7.2.3.1 Sheboken Well 7-8
7.2.3.2 Patton Well 7-9
7.2.3.3 Grove Pond Well 7-10
7.2.3.4 McPhearson Well 7-10
7.2.3.5 Water Storage Tanks 7-10
7.2.4 Properties Adjacent to the Sanitary Sewer System 7-10
7.2.4.1 Wastewater Treatment Plant 7-10
7.2.4.2 Sewage Lift Stations 7-11
7.2.4.2.1 Building 3812 Lift Station 7-11
7.2.4.2.2 Building 622 Lift Station 7-11
7.2.4.2.3 Building 1006 Lift Station 7-11
7.2.4.3.4 Building 1427 Lift Station 7-11
7.2.4.2.5 Building 3711 Lift Station 7-12
7.2.4.2.6 Building 3802 Lift Station 7-12

8.0 Relevant Information From Records Review, Interviews, and Aerial Photographs Review 8-1

9.0 Ongoing Response Actions 9-1
9.1 Electrical Distribution System 9-1
9.2 Gas Distribution System 9-1
9.3 Potable Water Distribution System 9-1
9.4 Sanitary Sewer System 9-2

10.0 Recommendation as to Suitability to Transfer 10-1

11.0 Selected References 11-1

12.0 Selected Map and Photograph References 12-1

List of Figures

Figure 1-1: Proposed Transfer Systems and Adjacent Properties 1-2

List of Tables

Table 3-1: Community Environmental Response Facilitation Act Parcels Containing Utility System Structures 3-7
Table 5-1: Substation Land Use History 5-2
Table 5-2: Water Well and Water Storage Tank Land Use History 5-3
Table 5-3: Wastewater Treatment Plant and Sewage Lift Stations Land Use History 5-4
Table 6-1: Fort Devens Well Descriptions 6-13
Table 6-2: Fort Devens Sewage Lift Stations 6-14
Table 7-1: Potential Sources of Contamination within the Proposed Transfer Systems 7-14
Table 7-2: Potential Sources of Contamination on Adjacent Property 7-16

Acronyms and Abbreviations

ABB	ABB Environmental Services, Inc.
ACM	Asbestos-Containing Material
AOC	Area of Contamination
AREE	Area Requiring Environmental Evaluation
BGC	Boston Gas Company
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERFA	Community Environmental Response Facilitation Act
CMR	Code of Massachusetts Regulations
DDE	Dichlorophenyl-dichloro-ethylene
DoD	Department of Defense
DPW	Department of Public Works
EBS	Environmental Baseline Survey
EMO	Environmental Management Office
EOD	Explosive Ordnance Disposal
EPIC	Environmental Photographic Interpretation Center
IAG	Interagency Agreement
IRA	Immediate Response Action
LBP	Lead-Based Paint
MAAF	Moore Army Airfield
MADEP	Massachusetts Department of Environmental Protection
MCP	Massachusetts Contingency Plan
MGD	Million Gallons per Day
NEPC	New England Power Company
NFA	No Further Action
NoN	Notice of Noncompliance
OHM	OHM Remediation Services Corporation
PCB	Polychlorinated Biphenyl
PCE	Tetrachloroethylene
psig	Pounds per Square Inch Gauge
SA	Study Area
SVE	Soil Vapor Extraction
TPHC	Total Petroleum Hydrocarbon
µg/g	Microgram per gram
USACE	U.S. Army Corps of Engineers
USAEC	U.S. Army Environmental Center
UST	Underground Storage Tank
UXO	Unexploded Ordnance
WWII	World War II
WWTP	Wastewater Treatment Plant

Executive Summary

This Environmental Baseline Survey (EBS) was performed to make a determination of the suitability to transfer the electrical, gas, potable water, and sanitary sewer distribution systems at Fort Devens, Massachusetts, to the Massachusetts Government Landbank. The structures associated with the proposed transfer systems occupy approximately 50 acres that are not distributed contiguously throughout Fort Devens. The wastewater treatment plant accounts for a majority of the total acreage.

Only aboveground structures associated with the four utility systems are included in the EBS. Underground piping and overhead electrical lines were not evaluated. In the special case of wells, areas within Zone I of well drawdown are considered to be in the proposed transfer systems, while areas within Zone II are considered to be adjacent to the proposed transfer system. Zone I is defined by the Massachusetts Department of Environmental Protection (MADEP) as a zone that provides a 400-foot radius around the well. Zone II is defined by MADEP as the area that contributes water to the well. The Zone II area used in this EBS to evaluate adjacent areas was delineated by the *Detailed Flow Model for North and Main Posts* conducted by Engineering Technologies Associates in 1994.

The EBS follows protocols outlined in the current Department of Defense (DoD) guidance on the Environmental Review Process for Deed Transfer of Real Property at Base Realignment and Closure Installations. This process includes a records review, a review of aerial photographs and historical drawings, and a physical inspection of the proposed transfer systems and adjacent properties. Buildings within the proposed transfer systems were inspected for asbestos-containing materials(ACM) and radon. Soil sampling for polychlorinated biphenyls (PCBs) was conducted at the West Main and Patton Road Substations of the electrical distribution system.

According to the Community Environmental Response Facilitation Act (CERFA) a majority of the proposed transfer systems are located in CERFA disqualified parcels. CERFA defines a disqualified parcel as any area where there is a history of release, disposal, or storage for one year or more of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) regulated hazardous substances or petroleum products.

Three properties within the electrical distribution system are undergoing response actions due to PCB contamination in soil greater than MADEP's accepted level of 20.0 µg/L in category S-1 soil. These areas are: Area Requiring Environmental Evaluation (AREE) 66A, Building 3752; AREE 66B, Building 1634; and AREE 66G, West Main Street Substation.

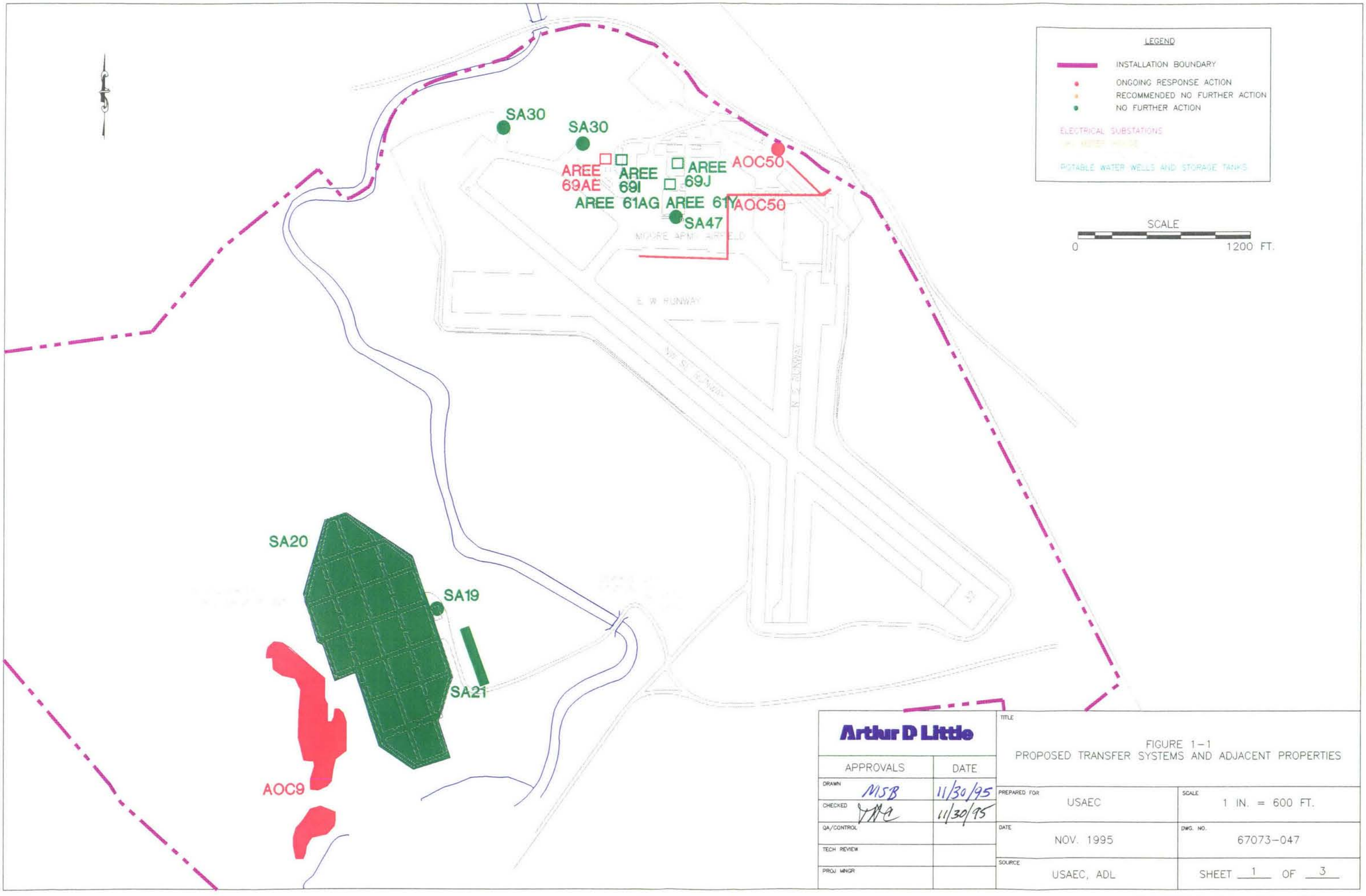
One property within the potable water distribution system is undergoing a response action due to a release of fuel oil from an underground storage tank (UST). This site is located at the Sheboken Well. Contaminated soil and Building 3628 have been removed, but a final no further action determination has not been made.

The records review identified 40 properties where investigations have occurred on properties adjacent to aboveground structures on the proposed transfer systems. These include 2 USTs, 21 AREE sites, and 17 Study Areas (SAs). Response actions are ongoing at 9 of the 39 properties. Two response actions are occurring on property adjacent to the electrical distribution system. These include SA 13, the Lake George Street Landfill, and Area of Contamination (AOC) 63AX, a historical UST at Building 2517. Three response actions are adjacent to the potable water distribution system. These include AOC 40, the Cold Spring Brook Landfill, SA 56, a leaking UST at Building 2417, and a UST removed at Building 2432. Four response actions are adjacent to the sanitary sewer distribution system. These include AOC 69W, a fuel oil release at the Fort Devens Elementary School; AREE 69AE, a jet fuel spill at Building 3809; AOC 9, the North Post Landfill; and AOC 50, the World War II aircraft fueling system.

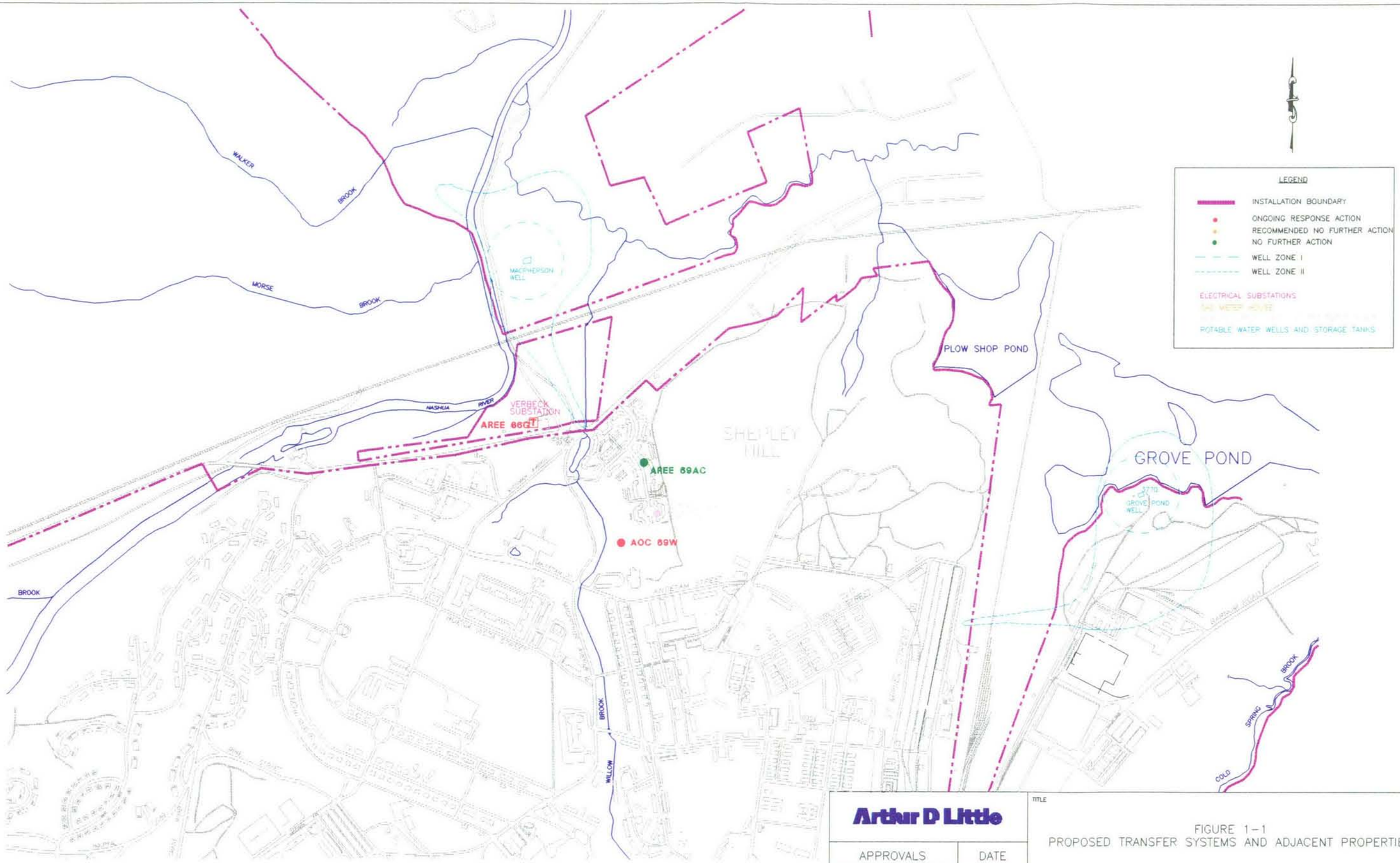
Although response actions are occurring on properties adjacent to the proposed transfer systems, the response actions will not directly impact the proposed transfer systems. The gas and sanitary sewer systems are recommended for classification as suitable for transfer. The electrical and potable water systems are recommended for classification as suitable for transfer after removal actions are performed at AREE 66A, AREE 66B, AREE 66G, and Sheboken Well. It is recommended that, in accordance with DoD guidance, a hazardous substance notice for the potable water and sanitary sewer system is needed because petroleum products were stored for one year or more in the proposed transfer systems. For the potable water and sanitary sewer systems, it is recommended that a hazardous substance notice is needed for the presence of asbestos.

1.0 Introduction

This Environmental Baseline Survey (EBS) was performed in accordance with current Department of Defense (DoD) guidance in order to make a determination of the suitability to transfer the electrical, gas, potable water, and sanitary sewer distribution systems at Fort Devens, Massachusetts, to the Massachusetts Government Landbank. The structures associated with the proposed transfer systems occupy approximately 50 acres that are not distributed contiguously throughout Fort Devens. The wastewater treatment plant (WWTP) accounts for a majority of the total acreage (see Figure 1-1).



Arthur D Little		TITLE: FIGURE 1-1 PROPOSED TRANSFER SYSTEMS AND ADJACENT PROPERTIES	
APPROVALS	DATE		
DRAWN MSB	11/30/95	PREPARED FOR: USAEC	SCALE: 1 IN. = 600 FT.
CHECKED	11/30/95	DATE: NOV. 1995	DWG. NO.: 67073-047
QA/CONTROL		SOURCE: USAEC, ADL	SHEET 1 OF 3
TECH REVIEW			
PROJ MNGR			



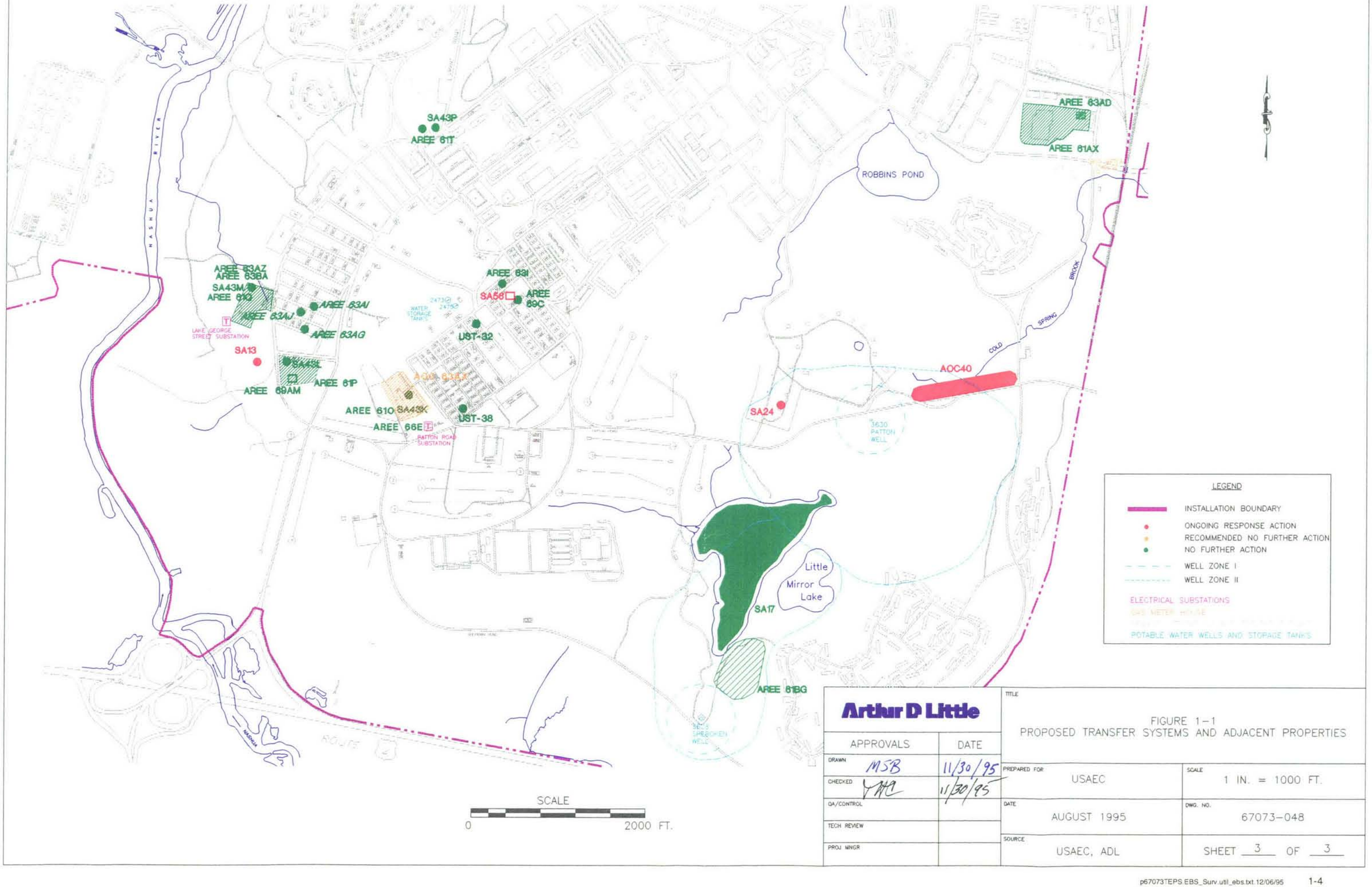
Arthur D Little

APPROVALS	DATE
DRAWN MSB	11/30/95
CHECKED TAC	11/30/95
QA/CONTROL	
TECH REVIEW	
PROJ MNGR	

TITLE

FIGURE 1-1
PROPOSED TRANSFER SYSTEMS AND ADJACENT PROPERTIES

PREPARED FOR: USAEC	SCALE: 1 IN. = 1000 FT.
DATE: NOV. 1995	DWG. NO.: 67073-049
SOURCE: USAEC, ADL	SHEET 2 OF 3



Arthur D Little

APPROVALS	DATE
DRAWN MSB	11/30/95
CHECKED	11/30/95
QA/CONTROL	
TECH REVIEW	
PROJ MNGR	

TITLE

FIGURE 1-1
PROPOSED TRANSFER SYSTEMS AND ADJACENT PROPERTIES

PREPARED FOR: USAEC	SCALE: 1 IN. = 1000 FT.
DATE: AUGUST 1995	DWG. NO.: 67073-048
SOURCE: USAEC, ADL	SHEET 3 OF 3

2.0 Property Description

2.1 Proposed Transfer Systems

The electrical, gas, potable water, and sanitary sewer distribution systems located throughout Fort Devens, Massachusetts, are proposed to be transferred to the Massachusetts Government Landbank. A description of each utility system is provided below.

- **Electrical:** Fort Devens currently purchases electricity wholesale from the New England Power Company (NEPC). Power is distributed to the post through the operation of three substations, approximately 60 miles of overhead lines, approximately 2.7 miles of underground lines, and over 900 transformers.

- **Gas:** Fort Devens purchases firm (non-interruptable) natural gas service from the Boston Gas Company (BGC) on the retail market. Two gas mains distribute service at Fort Devens via 17.9 miles of government-owned underground lines and 11.9 miles of BGC-owned underground lines (Ebasco Infrastructure, 1992). The building that houses the gas master meter and gas regulator is owned by BGC and located at the intersection of Patton Road and Barnum Road.

- **Potable Water:** Fort Devens obtains potable water from four ground water wells on the Main and North Posts. Water is stored in 2 elevated steel storage tanks and each tank has a capacity of 1 million gallons (Maguire Group, Inc., 1995). Approximately 54.6 miles of underground distribution lines, ranging in size from 4 to 10 inches in diameter, distribute the water throughout the Main and North Posts (Ebasco Infrastructure, 1992).

- **Sanitary Sewer:** Fort Devens uses a gravity-flow sewage collection system to channel waste to the WWTP located on the North Post. The collection system consists of 65 miles of piping, 5 aboveground sewage lift stations, and 3 underground sewage lift stations (RASco, 1995). The WWTP includes 3 Imhoff tanks, 22 sand infiltration beds, and 4 sludge drying beds.

2.2 Adjacent Properties

Properties surrounding the utility systems vary throughout the Main and North Posts. Adjacent properties range from grassy areas to airfields. In general, aboveground structures associated with the proposed transfer systems are in relatively secluded areas with no major development in the immediate vicinity. Locked fences enclose a majority of the structures within the proposed transfer systems. Notable exceptions are the Patton Road Substation and the sewage lift station in Building 3802 at Moore Army Airfield (MAAF).

3.0 Survey Methodology

The EBS was conducted in accordance with DoD guidance and consisted of the following:

- Review of the Community Environmental Response Facilitation Act (CERFA) Report
- Records search of the proposed transfer systems
- Records search of adjacent properties
- Review of historical drawings and aerial photographs
- Interviews with Fort Devens's personnel
- Visual inspections of the proposed transfer systems and adjacent properties
- Identification of sources of contamination on adjacent properties

Portions of the proposed transfer systems located aboveground or contained in aboveground structures were evaluated. The evaluation included all aboveground electrical transformers, all sewer lift stations, potable water pumphouses, and potable water storage tanks. Underground structures and distribution lines were not included in the EBS, because the environmental concerns regarding electrical wiring and piped systems were determined to pose minimal threat to the environment. Furthermore, no waste materials, toxic substances, nor petroleum products are distributed through the utility system. In the special case of wells, properties within Zone I of well drawdown are included in the proposed transfer systems, while properties within Zone II were considered adjacent to the proposed transfer systems. Zone I is defined by MADEP as a zone that provides a 400-foot radius around the well. Zone II is defined by the MADEP as the area that contributes water to the well. The Zone II area used in the EBS was delineated by the *Detailed Flow Model for North and Main Posts* (Engineering Technologies Associates, 1994).

3.1 Review of the Community Environmental Response Facilitation Act Report

The *Final Community Environmental Response Facilitation Act (CERFA) Report* (Arthur D. Little, 1994) was reviewed as part of this EBS. The CERFA Report identified property on Fort Devens that offered the greatest opportunity for immediate reuse and redevelopment. As part of the CERFA process, property where no Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-regulated hazardous substances or petroleum products were stored, released, or disposed of was identified. Non-CERCLA hazardous materials that were identified include asbestos, radon, polychlorinated biphenyls (PCBs), and lead-based paint (LBP). At the close of the evaluation, four types of CERFA parcels were

identified: CERFA-clean parcels, CERFA parcels with qualifiers, CERFA-disqualified parcels, and CERFA-excluded parcels. These categories are defined as follows:

- CERFA-clean parcels: Areas of the facility that have no history of CERCLA-regulated hazardous substance or petroleum product release, disposal, or storage

- CERFA parcels with qualifiers: Areas of the facility that have no evidence of a release, disposal, or storage of CERCLA-regulated hazardous substances or petroleum products, but contained hazards such as asbestos, radon gas, LBP, unexploded ordnance (UXO), radionuclides, or PCB-containing equipment

- CERFA-disqualified parcels: Areas of the facility for which there is a history of a release, disposal, or storage for one year or more of CERCLA-regulated hazardous substances or petroleum products

- CERFA-excluded parcels: Areas on the installation that have an existing mandate for retention by the Federal Government or have already been transferred by deed

Aboveground structures associated with the proposed transfer systems are located within 18 CERFA parcels. Of the total 18, 12 are classified as CERFA-disqualified parcels, 2 are classified as CERFA-qualified parcels, and 4 are classified as CERFA-clean parcels. The CERFA parcels are summarized in Table 3-1. CERFA designation is for the entire parcel.

3.2 Records Search - Utility Transfer Systems

The records search consisted of a review of all environmental reports pertaining to the proposed transfer systems. References are provided in Section 11.0. The records included:

- *Draft Environmental Impact Statement, Fort Devens, Massachusetts, Disposal and Reuse.* (U.S. Army Corps of Engineers [USACE], 1994)

- *Draft No Further Action Decision Under CERCLA. Study Areas 19, 20, and 21 Wastewater Treatment Plant.* (ABB Environmental Services, Inc. [ABB], 1994a)

- *Feasibility Study for Utility Realignment, Fort Devens, Massachusetts.* Contract No. DACA51-91-0012. (Ebasco Infrastructure, 1992)

- *Final Site Investigation, Groups 3, 5, & 6, Fort Devens, Massachusetts.* (ABB, 1993a)

- *Final Transformer Study Report (AREE 66), Base Realignment and Closure Environmental Evaluation, Fort Devens, Massachusetts.* (Arthur D. Little, 1995e)

- *Operation and Maintenance Manual, Wastewater Treatment Plant, Fort Devens, Massachusetts.* (RASco, Inc., 1995)

- *Operation and Maintenance Manual, Water Supply and Treatment Facilities, Fort Devens, Massachusetts.* (Maguire Group, Inc., 1995)

- *Ordnance, Ammunition and Explosives Archives Search Report Findings, Fort Devens, Ayer, Massachusetts.* (USACE, 1995b)

- *Wastewater Treatment Facility Inspection Report.* (Kimball, Robert A., 1991)

3.3 Records Search - Adjacent Properties

The records search consisted of a review of all environmental reports pertaining to areas adjacent to the proposed transfer systems. References are provided in Section 11.0. These records included:

- *Detailed Flow Model for Main and North Post, Fort Devens, Massachusetts.* (Environmental Technologies Associates, Inc., 1994)

- *Draft Final Closure Report, AREE 66C, Fort Devens, Massachusetts.* (OHM Remediation Services Corp. [OHM], 1994)

- *Final Maintenance and Waste Accumulation Areas (AREE 61) Report.* (Arthur D. Little, 1995a)

- *Final Past Spill Sites Report (AREE 69), Base Realignment and Closure Environmental Evaluation, Fort Devens, Massachusetts.* (Arthur D. Little, 1995b)

- *Final Previously Removed Underground Storage Tank (AREE 63) Report), Base Realignment and Closure Environmental Evaluation, Fort Devens, Massachusetts.* (Arthur D. Little, 1995c)

- *Final Report. Study Area 50.* (IT Corp., 1994)

- *Final Site Investigation Report, Groups 2, 7, and Historic Gas Stations.* (ABB, 1993b)
- *Final Site Investigation, Groups 3, 5, & 6, Fort Devens, Massachusetts.* (ABB, 1993a)
- *Final Site Investigation Report, Fort Devens Main Post Site Investigation, Fort Devens, Massachusetts.* (Arthur D. Little, 1995d)
- *Issues Statement, Debris Disposal Management, Fort Devens, Massachusetts.* (USACE, 1995a)
- *No Further Action Under CERCLA. Study Area 43K Historic Gas Station Sites.* (ABB, 1994d)
- *No Further Action Decision Under CERCLA. Study Area 43Q Historic Gas Station Sites.* Fort Devens, Massachusetts. (ABB, 1995b)
- *No Further Action Under CERCLA. Study Area 43M Historic Gas Station Sites.* (ABB, 1994c)
- *No Further Action Decision Under CERCLA. Study Area 09 North Post Landfill.* (ABB, 1993c)
- *No Further Action Under CERCLA. Study Area 24 (Bunker 187).* (U.S. Army Environmental Center [USAEC], 1993)
- *No Further Action Under CERCLA. Study Area 43L Historic Gas Station Sites.* (ABB, 1994b)
- *No Further Action Decision Under CERCLA. Study Area 47 MAAF UST.* (ABB. 1993d)
- *No Further Action Under CERCLA. Study Area 30 Moore Army Airfield Drum Storage Area.* (ABB, 1995a)
- *No Further Action Decision Under CERCLA, Study Area 17: Little Mirror Lake and Mirror Lake, Fort Devens Main Post Site Investigation, Fort Devens, Massachusetts.* (Arthur D. Little, 1995f)
- *Ordnance, Ammunition, and Explosives Archives Search Report Findings, Fort Devens, Ayer, Massachusetts.* (USACE, 1995b)

3.4 Historical Drawings and Aerial Photograph Review

In 1991, the Environmental Photographic Interpretation Center (EPIC) prepared aerial photographs for all of Fort Devens, including the proposed transfer systems and adjacent properties. The years reviewed by EPIC included: 1943, 1952, 1965, 1972, 1980, and 1991. Aerial photographs along with the following historical drawings were reviewed during the preparation of this EBS:

- Basic Information - Master Planning Detail Site and Building Use Map. Fort Devens, Ayer, Massachusetts. (USACE, 1954a)
- General Layout Plan, Fort Devens, Massachusetts. (War Department, 1941)
- General Layout Plan for Air Pollution, Fort Devens, Massachusetts. (USACE, 1954b)
- General Map, Camp Devens, Massachusetts. (War Department, 1919)
- General Site Map. Fort Devens, Massachusetts. (USACE, 1986)
- Property Map, Camp Devens, Massachusetts. (War Department, 1920)

3.5 Interviews

Fort Devens's employees were interviewed as part of the Area Requiring Environmental Evaluation (AREE) 66 investigations (Arthur D. Little, 1995e). Additional interviews were conducted with Mark Giangiacomo and Robert Orr, of the Department of Public Works at Fort Devens, Massachusetts.

3.6 Visual Inspections

Visual inspections of the proposed transfer systems were conducted as part of the CERFA, AREE 66, and asbestos investigations. The CERFA and AREE 66 inspections took place during the summer of 1993, and the asbestos investigations took place during July of 1994.

3.7 Identification of Sources of Contamination on Adjacent Properties

To identify sources of contamination on adjacent properties, Study Areas (SAs), AREEs, and AOCs, as defined in the Interagency Agreement (IAG), were reviewed. Thirty-nine areas adjacent to aboveground utility structures or within water supply Zone II were identified.

Activities at all adjacent properties are described in Section 6.2. Hazardous substances and petroleum products management practices at these sites and potential impacts on the proposed transfer systems are discussed in Section 7.2.

3.8 Physical Inspections - Adjacent Properties

Physical inspections of properties adjacent to the proposed transfer systems were conducted during the environmental investigations associated with adjacent properties. Site investigations at Fort Devens have occurred since 1992 when the *Enhanced Preliminary Assessment, Fort Devens, Massachusetts* was issued by Roy F. Weston.

3.9 Sampling

Although no sampling activities were conducted as part of this EBS, extensive sampling was conducted during basewide site investigations. Soil at the West Main Substation and Patton Road Substation was sampled during AREE 66 investigations in the summer of 1994. Asbestos sampling was also conducted during the summer of 1994 at the following utility system buildings: 1427, 3628, 3630, 3711, 3802, 3804, 3810, 3812, and 3835.

Table 3-1: Community Environmental Response Facilitation Act Parcels Containing Utility System Structures

Utility Structure	Parcel*	Parcel Size (acres)	Location	Basis of CERFA Parcel Designation**
Electrical Distribution System				
West Main Substation	209Q	3	North of Verbeck Gate	PCB transformers in use
Lake George Street Substation	19D	12	West of Lake George Street, near Building 2602	Petroleum storage and release, Hazardous material disposal
Patton Road Substation	70D	33	North of Patton Road, 2500 area	Petroleum storage and release, Hazardous material storage, PCB release
Gas Distribution System				
BGC Meter Building	107P	7	Southwest of intersection of Patton Road and Dakota Street	Clean
Potable Water Distribution System				
Sheboken Well	83D	2	Sheridan Road, south of Mirror Lake	Petroleum storage
Patton Well	89P	110	South of Patton Road across from the Magazine Area	Clean
Grove Pond Well	168D	1	South of Grove Pond	Petroleum storage, Hazardous materials storage
MacPherson Well	169P	174	East of MacPherson Road, south on Nonacoicus Brook	Clean
Water Storage Tank S-2475	68D	1	South of Water Tank Road, 2400 area	Petroleum storage
Water Storage Tank S-2476	36P	46	South of Water Tank Road, 2400 area	Clean

Table 3-1: Community Environmental Response Facilitation Parcels Containing Utility System Structures (continued)

Utility Structure	Parcel*	Parcel Size (acres)	Location	Basis of CERFA Parcel Designation**
Sanitary Sewer Distribution System				
Waste Water Treatment Plant	173D	69	Filter Bed Road	Hazardous material disposal and release
Main Sewer Lift Station	11D	73	MacPherson Road, south of Moore Army Airfield	Petroleum storage and release
Lift Station at Building 620	33D	13	Grant Road west of Sherman Avenue	Petroleum and hazardous material storage
Lift Station at Building 1006	153Q	18	Verbeck Housing	Probable asbestos and LBP
Lift Station at Building 1427	106D	12	Southwest of intersection of Patton Road and Dakota Street	Petroleum storage and release
Lift Station at Building 3711	161D	2	West of Barnum Road	Petroleum storage
Lift Station at Building 3802	178D	62	MAAF	Petroleum storage and release, Hazardous materials storage and release

* D parcels are CERFA-disqualified parcels
Q parcels are CERFA-qualified parcels
P parcels are CERFA-clean parcels

** Designation is for entire parcel

4.0 Relevant Information Gained During Records Search

During the records search a number of AREEs and SAs were determined to be located within the proposed transfer parcel. The following AREEs were investigated for potential residual contamination from PCB spills: AREE 66A, AREE 66B, AREE 66C, AREE 66D, AREE 66E, AREE 66F, and AREE 66G. The following SAs were investigated in conjunction with the Fort Devens WWTP: SA 19, SA 20, and SA 21. Environmental concerns associated with both the proposed transfer systems and adjacent properties are described in Section 7.0.

5.0 Title Search and Historical Land Use

The utility systems are located within a portion of Fort Devens that was obtained by the Army in 1919, when approximately 4,900 acres were purchased for the initial development of the base. Historically, a majority of the land was used as farmland by private landowners. Maps identifying parcels of land acquired by the Army and associated acquisition dates are presented in the CERFA report (Arthur D. Little, 1994). The following summarizes the results of the title search and historical land use review for each utility system.

5.1 Electrical Distribution System

A title search and a historical land use review was conducted for each substation in the Fort Devens electrical distribution system. No title searches or land use reviews were conducted for transformers or electrical lines. The land use history of each substation is summarized in Table 5-1.

5.2 Gas Distribution System

The BGC meter house land was purchased as a 22-acre plot from the heirs of Levi W. Phelps for the establishment of Camp Devens. During the 1920s and 1930s, the property was undeveloped, with no roads in the immediate vicinity and the Boston and Maine Railroad located to the east. By the 1940s, the undeveloped property was bordered by Barnum Road to the north, Saratoga Street to the west, the railroad to the east, and undeveloped land to the south. The meter house appears on a 1954 base map (USACE, 1954b). The surrounding land remains undeveloped.

5.3 Potable Water System

A title search and a land use review were conducted for Grove Pond Well, Sheboken Well, McPhearson Well, and Patton Well, as well as two elevated steel storage tanks identified as S-2473 and S-2475. The land use history is summarized in Table 5-2.

5.4 Sanitary Sewer System

A title search and a land use review were conducted for the WWTP and the six aboveground sewage lift stations. The results of the review are summarized in Table 5-3.

Table 5-1: Substation Land Use History

Substation	Land Acquisition[a]	1920s and 1930s[b]	1940s and 1950s[c]	1960s and 1970s[d]	Present
West Main Substation	30 acres from Elizabeth R. Hewes on June 24, 1919	Power plant - two power transmission lines entering from the west	West Main Substation constructed in 1948	Main circuit breakers replaced in 1968	Active substation
Lake George Substation	80 acres from Emma F. Warrant and Geo F. Dow on September 9, 1919	Undeveloped - behind the Base Hospital	Location of Building 2710, a vehicle shed	Building 2710 demolished in late 1960s	Lake George Substation constructed in 1991
Patton Road Substation	20 acres from the heirs of Levi W. Phelps on August 9, 1919	Undeveloped - no building or roads nearby	Undeveloped - southwest of 2500 area barracks; northeast of "Rail Movement Mock-up B"	Patton Road Substation built in 1968	Active substation

a: War Department, 1920
b: War Department, 1919
c: War Department, 1941 and USACE, 1954a
d: EPIC, 1991

Table 5-2: Water Well and Water Storage Tank Land Use History

Well or Storage Tank	Land Acquisition[a]	1920s and 1930s[b]	1940s and 1950s[c]	1960s and 1970s[d]	Present
Grove Pond	10 acres from Ella F. Hovey on October 13, 1919	Building with two lines running from it and a "filter" area to the southeast	Well constructed 1943; mounded material to the southeast	Cleared and graded area to the southeast	Well reconstructed 1986
Sheboken	62 acres from Hugh R. McGregor on December 15, 1919	Undeveloped - no building or roads nearby	Well constructed 1941; Sheridan Road to south	Excavated area to the northeast	Well redeveloped and new screen installed 1985; excavated area and mounded material to the northeast
MacPherson	28 acres from Henry P. Mead on July 11, 1919	Undeveloped - no building or roads nearby	MacPherson Road to the west	Well constructed 1966; Training area	Continued use
Patton	18 acres from Genevieve W. Brewer on October 13, 1919	Undeveloped - no building or roads nearby	Well constructed 1953; Magazine area to north	SA 40 visible on aerial photograph	Rebuilt after fire in 1991
Storage Tanks S-2473 and S-2475	11.37 acres from private landowners, E.A. and C.E Richardson on August 4, 1919	Four water storage tanks; Barracks to northeast	S-11, S-12 (50-ft. standpipe tanks), S-13 (100-ft. standpipe tank), S-14 pump house; Barracks to east and south, confidence courses to west and north	Tanks and pump house still present; training area to the southwest	S-11 and S-12 replaced with spheroid tank 2473 in 1986; S-13 renamed 2475; Pump house 2476 (S-14) abandoned

a: War Department, 1920
b: War Department, 1919
c: War Department, 1941 and USACE, 1954a
d: EPIC, 1991

Table 5-3: Wastewater Treatment Plant and Sewage Lift Stations Land Use History

Area	Land Acquisition[a]	1920s and 1930s[b]	1940s and 1950s[c]	1960s and 1970s[d]	Present
Wastewater Treatment Plant	70 acres from private landowner, M. Belle Dodge, on August 24, 1919	Machine gun range and firing trenches	WWTP constructed 1942, M1 Carbine Range to the south	WWTP, debris at SA 9, training area to west	WWTP, debris at SA 9
Lift Station at Building 3711	70 acres from private landowner, Donald R. Hill, on September 9, 1919	Undeveloped, east of railyard	Lift station, south of Warehouse Shop, east of railroad	Lift station	Lift station
Lift Station at Building 3812	14 acres from private landowner, B. and A.D. Fessenden Corp., on July 11, 1919	Convalescent corrals	Buildings at MAAF	Lift station	Lift station
Main Lift Station	180 acres from private landowner, Claudia Dupuis, on August 4, 1919	Sewage disposal pumping station to sewage disposal beds west of current MAAF	Sewage pumping station to new WWTP	Lift station	Lift station
Lift Station at Building 1427	22 acres from the heirs of private landowner, Levi W. Phelps, on September 9, 1919	Undeveloped, no roads or buildings in the vicinity	Shown as Building 661	Lift station	Lift station
Lift Station at Building 620	53.5 acres from the heirs of private landowner, Levi W. Phelps, on September 9, 1919	Appear to be barracks	Sports Arena built as Building T-2910, confidence course to west	Sports Arena	Lift station
Lift Station at Building 1006	45 acres from the heirs of private landowner, Mary Root on August 4, 1919	Undeveloped, laundry to west	Wherry Housing Building 1	Housing	Verbeck Housing Lift station

a: War Department, 1920
b: War Department, 1919
c: War Department, 1941 and USACE, 1954a
d: EPIC, 1991

6.0 Description of Activities

6.1 Proposed Transfer Systems

Structures associated with the proposed transfer systems occupy approximately 50 acres distributed throughout Fort Devens. Activities at each of the proposed transfer systems are described below.

6.1.1 Electrical Distribution System

The Fort Devens electrical distribution system includes 3 substations, over 900 transformers, 60 miles of overhead lines, and 2.7 miles of underground lines. The electric lines were not evaluated as part of this EBS since they do not represent a significant threat to the environment.

6.1.1.1 Substations. Three substations, West Main Street Substation, Lake George Street Substation, and Patton Road Substation, distribute power throughout Fort Devens. The substations are the only structures associated with the electrical system.

The West Main Street Substation is located on West Main Street between the Main and North Posts. The substation is surrounded by two locked, chain-link fences. High voltage warning signs are attached to the fences. The substation consists of two incoming 69 kV lines from the NEPC, two outgoing 69 kV lines to the Lake George Street Substation, and three single-phase 69 kV/4.16 kV stepdown transformers rated 2,000 kVA (Ebasco Infrastructure, 1992). The basewide transformer evaluation conducted in 1993 documented leaks of PCB-containing oil from the electrical equipment. The equipment was replaced and oil within the electrical equipment no longer contains PCBs (Orr, 1995). Surface soil at West Main Street Substation was sampled during AREE 66G investigations (Arthur D. Little, 1995e).

The Lake George Street Substation is located west of Lake George Street, southeast of Building 2602, and is surrounded by a locked, chain-link fence. The substation consists of two incoming 69 kV transmission lines, two three-phase 12,000 kVA transformers that step down power to 13.8 kV, and three single-phase 50 kVA transformers that step down power to 4.16 kV.

The Patton Road substation is located north of Patton Road, southwest of the 2500 area. The substation is surrounded by a locked, chain-link fence. Transmission line No. 2, tapped near Lake George Street Substation, supplies power to the substation (Ebasco Infrastructure, 1992). One three-phase 6,250 kVA transformer steps down voltage at the substation to 4.16 kV for distribution. Surface soil at Patton Road Substation was sampled during AREE 66E investigations (Arthur D. Little, 1995e).

6.1.1.2 Transformers. Approximately 900 transformers are distributed throughout Fort Devens. Transformers are classified according to the Toxic Substances Control Act as follows:

- PCB Transformer - PCBs > 500 ppm
- PCB-Contaminated Transformer - PCBs 50-500 ppm
- Non-PCB Transformer - PCBs < 50 ppm

The Facility Engineering Support Activity completed a basewide transformer study in 1982. In 1990, an Environmental Management Office (EMO) contractor updated the study, and the Fort Devens Department of Public Works (DPW) replaced all PCB transformers (i.e., > 500 ppm) with non-PCB transformers (i.e., < 50 ppm) (Ebasco Infrastructure, 1992). In November of 1993, EMO initiated a program to replace all PCB-contaminated transformers on base with non-PCB transformers (i.e., < 50 ppm) (Arthur D. Little, 1995e). As a result, all transformers remaining on Fort Devens contain less than 50 ppm of PCB oil.

In 1993 a third investigation, identified as AREE 66, investigated locations where transformers containing PCBs had leaked onto soil on the Main and North Posts. AREE 66 investigations identified seven transformers, excluding the substations, where PCB oil had leaked to soil. Leaks and spills of oil ranged from slight staining around drain plugs on the transformers to circumstances where the transformer either began leaking due to structural failure or the transformer physically fell to the ground and ruptured. Of these seven locations, five were recommended for sampling based on the extent of the spill, the nature of the spill, and visual inspection of the site. These five sites were designated AREE 66A, 66B, 66C, 66D, and 66F (Arthur D. Little, 1995e).

AREE 66A, Transformer No. 6414125, is located behind Building 3752 off of Barnum Road. It was reported as leaking in September 1991 due to oil staining on the ground around the base of the pole. The transformer oil contained 549 ppm PCBs. The exact date of the spill was not recorded. The transformer was removed and it was unclear from the inspection whether any soil was removed.

AREE 66B (Transformer No. Not Recorded), is a transformer located next to Building 1634. The transformer and an unknown quantity of soil from around the base of the pole were removed at the time of the transformer spill.

AREE 66C, Transformer No. 7671845, is located next to Building 3657 on a pole next to the golf course reservoir water tank. The transformer was reported to be leaking during a quarterly inspection and was removed from service in May 1992. The extent of the leak and the amount of oil that made contact with the ground is

unknown. It was estimated that the transformer was at least 30 years old. Based on analysis conducted in 1982, the transformer contained oil with a PCB concentration of 316 ppm.

AREE 66D, Transformer #6573226, is located next to Building 357 at the corner of MacArthur and Dakota Streets. During replacement of the transformer, the transformer was damaged and approximately 1 pound of PCB-containing oil was spilled onto the ground. The date of this incident was not recorded. The transformer and an unknown quantity of soil was removed following the incident. The impacted area is approximately 20 feet from a storm drain that flows into Willow Brook.

AREE 66F, Transformer #6287290, is a pole-mounted transformer located next to Building 2025. The transformer contained oil with a PCB concentration of 1,115 ppm. During a storm on August 22, 1991, the pole and transformer fell to the ground when the pole was hit by a falling tree. An oil-stained area of approximately 40 square feet was evident southwest of Building 2025. The transformer was removed in 1991 and it is unclear from inspection records whether any soil was removed. (Arthur D. Little, 1995e).

6.1.2 Gas Distribution System

Fort Devens purchases firm (non-interruptable) natural gas service from the BGC. An underground, 8-inch, 200-pounds-per-square-inch gauge (psig) gas pressure main located in Barnum Road enters Fort Devens east of Saratoga Street from a source approximately 1 mile away. The gas master meter and gas regulator are located near the intersection of Patton Road and Barnum road and are owned by the BGC. The 8-inch gas main splits into 2 separate 8-inch gas mains, and each main is reduced to 20 psig gas pressure. These two mains distribute gas service to all gas-dependent areas on Fort Devens. The base distributes the gas via 17.9 miles of Army-owned underground lines and 11.9 miles of BGC-owned underground lines.

6.1.3 Potable Water Distribution System

The potable water distribution system at Fort Devens was constructed between 1938 and 1940. Fort Devens obtains potable water from four wells on Main and North Posts: Grove Pond Well, Sheboken Well, McPhearson Well, and Patton Well. Potable water is stored in two elevated steel storage tanks, S-2473 and S-2475, each having a total water storage capacity of 1 million gallons (Maguire Group, Inc., 1995). Potable water is distributed to the base by 54.6 miles of Army-owned underground lines, ranging in size from 4 to 10 inches in diameter. The system consists of cast iron or asbestos cement piping. All fire hydrants are flowed annually to prevent corrosion. The water distribution system was designed to service a base population of 30,000, including fire-fighting requirements (USACE, 1994). As of this EBS, the potable

water system was considered to be in good condition (Orr, 1995). The aboveground systems including potable water wells and storage tanks are described in the following sections.

6.1.3.1 Water Supply Wells. Four wells supply Fort Devens with potable water. They are the Grove Pond Well, Sheboken Well, McPhearson Well, and Patton Well. Currently, the wells have a maximum Massachusetts Department of Environmental Protection (MADEP) Division of Water Supply-permitted capacity of 1.3 million gallons per day (MGD). Historical pumping rates have averaged 4.5 MGD, and the potential maximum yield of the wells is 5.1 MGD.

The location, year constructed, type of well, maximum yield, retention tank capacity, and type of backup power for each well are summarized in Table 6-1. Sheboken and Patton Wells are gravel-packed wells, 20 and 24 inches in diameter, respectively. McPhearson Well is an 18-inch diameter gravel-packed well. Grove Pond is a tubular well field composed of 12, 8-inch diameter wells. Sheboken, McPhearson, and Patton Wells have 30,000-gallon retention tanks. The Grove Pond Well does not have a retention tank. At each well, water is treated with 1 ppm chlorine, 1 ppm fluoride, and a mexametaphosphate sequestering agent (Maguire Group, Inc., 1995).

6.1.3.2 Water Storage Tanks. Potable water is stored in two elevated steel storage tanks, S-2473 and S-2475, each having a total water storage capacity of 1 million gallons. The tanks are located on Water Tank Road in the 2400 area of Main Post. Tank 2475 is a 100-foot-tall standpipe tank that is approximately 55 years old. Tank 2473 is a spheroid tank that was installed in 1989 to replace two 50-foot standpipe tanks, S-11 and S-12. Building 2475 housed a pump used to pump water from the old 50-foot tanks to the 100-foot tank. The pump has not been used since the installation of the spheroid tank, and the building now contains water level meters for the tanks. The tanks currently contain an average of 60 feet of water (Orr, 1995).

6.1.4 Sanitary Sewer System

The sanitary sewer system at Fort Devens was constructed in 1942 and consists of the WWTP and associated sewage collection systems. Similar to the potable water system, the treatment plant is designed to handle a year-round population of 30,000 people with a maximum flow rate of 3.3 MGD (Ebasco Infrastructure, 1992). Flow rates to the WWTP are currently 300,000 to 400,000 gallons per day. The Fort Devens sewage collection system consists of 65 miles of Army-owned piping, ranging in size from 6 to 24 inches in diameter. The piping is primarily vitrified clay, however, there is some asbestos cement and cast iron transit piping. The system operates by gravity flow except in eight areas that require sewage lift stations. The WWTP and sewage lift stations are described in the sections below.

6.1.4.1 Wastewater Treatment Plant. The Fort Devens WWTP is located on the North Post, approximately 700 feet west of the Nashua River. The WWTP is situated approximately 200 feet above the surrounding land. The facility, which occupies approximately 35 acres, is located on a large kame-plain remnant with ground water flow under the infiltration beds toward the Nashua River. The WWTP can process 3.3 MGD with discharge to rapid sand infiltration beds and ultimately to an aquifer beneath the facility and the Nashua River.

The WWTP consists of three SAs: SA 19, the Imhoff Tanks; SA 20, the Rapid Infiltration Sand Beds; and SA 21, the Sludge Drying Beds. SAs were investigated for the presence of environmental contamination associated with both the historical and current use of the WWTP. The primary environmental concern was the potential release of contaminants from the infiltration beds to the ground water and from the sludge drying beds to surface soil and ground water.

In addition to being the location of three SAs, the WWTP has had difficulty remaining in compliance with state regulations. In 1985, Fort Devens submitted a ground water discharge permit application to the Massachusetts Division of Water Pollution Control. The application was denied because the proposed level of treatment would not achieve Class I effluent limits (Ebasco Infrastructure, 1992). In 1989, MADEP denied the Army's subsequent request for Class III aquifer reclassification. The Fort Devens EMO filed a formal reconsider request, but MADEP denied the reclassification again in 1991. As an attempt to meet Class I effluent limits, the sludge drying beds were renovated with 60-ml hypalon liners (Kimball, 1991). A Notice of Noncompliance (NoN) was issued on June 30, 1992, with a plan for upgrading the WWTP to Class I standards due August, 17 1992. The NoN also addressed the need to perform quarterly monitoring, to obtain a biennial permit, and to provide a deed restriction for Class III sludge application at MAAF.

Presently, the WWTP is operating under an interim permit status. In 1993, sluice gates were upgraded to alleviate corrosion and rust problems. However, due to current under use of the facility, many of the gates are in poor condition. At present, approximately 4 infiltration beds are in rotation. Each bed is used for 5 to 7 days, and rotation occurs when the depth of water in the bed reaches 18 inches or at 7 days (Mark Giangiacomo, 1995). Ground water monitoring is conducted at surrounding monitoring wells. Fort Devens received a permit for land application of sludge in June of 1995. The WWTP is currently considered to be a Grade 2 facility (257 CMR 2.13).

6.1.4.2 Sewage Collection System. Six of the sewage lift stations at Fort Devens are aboveground and two are underground. All sewage goes through the Main Sewage Lift Station, Building 3812, where preliminary sewage treatment occurs in an underground grit chamber and comminutor (RASco, Inc., 1995). The location and

capacity of each lift station are summarized in Table 6-2. All lift stations are equipped with emergency backup power. Portions of the sewage collection system (pipes, fittings, manholes, etc.) are greater than 50 years old.

6.2 Adjacent Properties

Adjacent properties to all four proposed transfer systems were evaluated and potential sources of contamination were reviewed. Since a majority of the gas distribution system is located underground, adjacent properties were not summarized. Among the adjacent properties, 18 AREEs, 16 SAs, and 2 USTs were identified.

6.2.1 Properties Adjacent to Electrical Distribution System

Potential sources of contamination on properties adjacent to the three substations were reviewed. Sources adjacent to pole-mounted transformers were not reviewed because pole-mounted transformers are not likely to be affected by surrounding contaminated media.

6.2.1.1 West Main Street Substation. No properties of contamination were identified adjacent to the West Main Street Substation. The substation is bordered by the Nashua River to the west, West Main Street to the south, and undeveloped land to the immediate north and east.

6.2.1.2 Lake George Street Substation. The Lake George Street Substation is located west of Lake George Street, southeast of Building 2602. Four properties containing nine AREEs and three SAs were identified adjacent to the Lake George Street Substation.

6.2.1.2.1 AREE 61P/SA 43L, AREE 63AY, and AREE 69AM. These AREEs are located at the corner of Lake George Street and Hattonsville Road, approximately 900 feet southeast of the Lake George Street Substation. The property was used as a historical gas station and motor pool until the late 1940s or early 1950s. Currently, the paved fenced area is used as a storage yard for military vehicles. Building 2601 is occasionally used by the Army Reserves as a motor repair facility (Arthur D. Little, 1995e).

AREE 61P investigated the former dry well and cesspool associated with the motor repair facility, Building 2601. SA 43L identified two 5,000-gallon USTs at a historical gas station at Building 2681. The gas station was used during World War II (WWII), after which the tanks stored No. 2 fuel oil. The fuel oil tanks were removed in 1989 by Kurz Associates, but the pumphouse, Building 268, remains on site (ABB, 1994b).

SA 43L investigated three 5,000-gallon tanks associated with a historical gas station at Building 2681. Franklin Environmental removed two gasoline USTs in November 1989 and a third waste oil UST was removed in December 1989. No evidence of soil contamination was detected during all three excavations.

AREE 63AY investigated a 1,000-gallon waste oil UST that was removed by Franklin Environmental on December 5, 1989. The UST was removed from a paved area on the southern side of Building 2601 (Arthur D. Little, 1995c).

AREE 69AM investigated a 15 to 20-gallon fuel oil spill that occurred in the lot behind Building 2601 on March 15, 1978. The spill occurred while moving a backhoe that contained fuel oil in its front bucket (Arthur D. Little, 1995b).

6.2.1.2.2 AREE 61Q/SA 43M, AREE 63AZ, and AREE 63BA. These AREEs are located on the west side of Lake George Street, approximately 300 feet east of the Lake George Street substation. The area was used as a gas station and motor pool until the late 1940s or early 1950s. The site is now paved, surrounded by a chain-link fence, and used as a storage yard for installation contractors (Arthur D. Little, 1995a).

AREE 61Q investigated a former cesspool and the drain leading to the cesspool from Building 2613. SA 43M investigated two 5,000-gallon USTs at a historical gas station at Building 2682. Similar to SA 43L, the gas station was used during WWII, after which the tanks stored No. 2 fuel oil. The tanks were removed in 1989 by Kurz Associates, but the pumphouse, Building 2682, remains on site (ABB, 1994c).

SA 43M studied two 5,000-gallon USTs at a historical gas station at Building 2682. The tanks were removed by Kurz Associates in 1989, and no evidence of holes or pitting in the tanks was observed.

AREE 63AZ and AREE 63BA reviewed Tanks 0011 and 0012. Two 1,000-gallon No. 2 fuel oil USTs which were removed by Franklin Environmental on December 5, 1989. Tank 0011 was located on the eastern side of Building 2613, and Tank 0012 was on the southern side (Arthur D. Little, 1995c).

6.2.1.2.3 AREE 63AG, AREE 63AI, and AREE 63AJ. These AREEs are located adjacent to Building 2602. AREE 63AG is located south of Building 2602, and AREE 63AI and AREE 63AJ are located north of Building 2602. AREE 63AG investigated a 1,000-gallon UST that was used to store No. 2 fuel oil for former Building 2606. The tank was removed in December 1987, and the area is now a grassy lot. AREE 63AI and 63AJ each identified a 1,000-gallon No. 2 fuel oil UST. Both tanks were removed by Zecco in 1987 (Arthur D. Little, 1995c). The area is now landscaped with a few trees.

6.2.1.2.4 SA 13. SA 13, the Lake George Street Landfill, occupies approximately 1 acre west of Lake George Street near the intersection of Hattonsville Road and approximately 600 feet southeast of the substation. A vegetated wetland area lies north of an access road adjacent to the landfill, and a small gully leads to the Nashua River. The site was used from 1965 to 1975 for disposal of construction debris, tree trunks, and possibly waste oil. The area is currently a small mound overgrown with trees and bushes. Active dumping of stumps and brush has been observed as of 1990 (Biang et. al., 1992).

6.2.1.3 Patton Road Substation. The Patton Road substation is located southwest of the 2500 area. Building 2517, the historical Transportation Motor Pool, is northwest of the substation and contains two AREEs and an SA. UST-0038 is located north of the substation.

The historical Transportation Motor Pool, Building 2517, contains AREE 61O, AOC 63AX, and SA 43K. AREE 61O reviewed the dry well associated with a historical gas station. AOC 63AX investigated a 1,000-gallon, single-walled, steel, waste oil UST that was located adjacent to the southwest side of Building 2517. SA 43K investigated a historical gas station located within the motor pool area at historical Building 178, existing Building 2514 (Arthur D. Little, 1995a).

UST 0038 is a 1,000-gallon No. 2 fuel oil UST that was removed from an area adjacent to Building 2519 on January 21, 1992, by ATEC Environmental (Penta, 1995).

6.2.2 Properties Adjacent to the Gas Distribution System

Undeveloped land surrounds the BGC meter house and no properties of environmental concern were identified on adjacent properties.

6.2.3 Properties Adjacent to the Potable Water System

Potential sources of contamination on property adjacent to the four ground water wells and the water storage tanks were identified. Properties adjacent to the distribution lines were not evaluated since the EBS only identified those properties adjacent to aboveground structures.

6.2.3.1 Sheboken Well. Sheboken Well is located in Building 3628 on Sheridan Road, south of Mirror Lake. AREE 61BG and SA 17 are located within its Zone II.

AREE 61BG, the Sheboken Well Disposal Site, is located off Sheridan Road, north of the Sheboken Well. The disposal site was first used after the Shoppette Landfill, SA 16, ceased operations during the mid-1980s. AREE 61BG contains asphalt and concrete debris, rebar, wire, and bricks (Arthur D. Little, 1995a).

Little Mirror Lake and Mirror Lake, SA 17, are north of Sheboken Well on Mirror Lake Road near the Salerno Circle Housing Area. Both lakes have been used for recreational purposes by base personnel. In the 1960s, grenades were removed from Mirror Lake. In 1990, six drums were removed from the lake. Additional drums were identified and remain in the lake (Arthur D. Little, 1995f).

6.2.3.2 Patton Well. The Patton Well is located south of Patton Road, northeast of Mirror Lake. SA 17, SA 24, and AOC 40 lie within its Zone II. Activities at SA 17 are discussed in Section 6.2.3.1, Sheboken Well.

SA 24, identified as a waste explosives storage bunker 187, is northwest of Patton Well in the magazine area on the southeastern portion of Main Post. The U.S. Army 14th EOD Detachment controls the bunker. The bunker is an in-ground Quonset hut, approximately 60 feet by 60 feet, with cement floors. Explosives designated for detonation at the EOD range on South Post are stored in the bunker (USAEC, 1993).

AOC 40, the Cold Spring Brook Landfill, occupies approximately 4 acres along the edge of Patton Road in the southeastern part of Main Post. Patton Well is roughly 600 feet west of the landfill. Cold Spring Brook Landfill was identified in November 1987 when 14, 55-gallon drums were discovered along the edge of Cold Spring Brook Pond. The drums contained chlorinated solvents and metals. Other wastes at the landfill include concrete slabs, wire, storage tanks, rebar, timber, and debris. The landfill is no longer in use.

6.2.3.3 Grove Pond Well. Grove Pond Well is located within Building 3770, south of Grove Pond and north of the Reserve Enclave. No properties of environmental concern were identified within the well's Zone II.

6.2.3.4 McPhearson Well. McPhearson Well is located within Building 3810, east of McPhearson Road, and south of Nonacoicus Brook. As with the Grove Pond Well, no properties of environmental concern were identified within the Zone II of McPhearson Well.

6.2.3.5 Water Storage Tanks. Two elevated steel storage tanks, S-2473 and S-2475, are located on Water Tank Road adjacent to the 2400 area on Main Post. Four properties of environmental concern are adjacent to the water tanks. They include: AREE 63I, AREE 69C, SA 56, and UST-32.

AREE 63I evaluated a 1,000-gallon, single-walled, steel, No. 2 fuel oil UST located adjacent to the southwestern corner of Building 2434. The tank was removed by ATEC on January 13, 1992 (Arthur D. Little, 1995c).

AREE 69C and SA 56 are both located at Building 2417. AREE 69C identified a spill of No. 2 fuel oil on June 20, 1990. SA 56 investigated soil contamination from a leaking 1,000-gallon, No. 2 fuel oil UST that was removed in October 1990 by Franklin Environmental Services, Inc (ABB, 1993b).

UST-32 refers to a 1,000-gallon, No. 2 fuel oil UST located at Building 2432. The tank was removed by ATEC on January 14, 1992 (Penta, 1995).

6.2.4 Properties Adjacent to the Sanitary Sewer System

The sanitary sewer system at Fort Devens includes the WWTP and six aboveground sewage lift stations. Properties adjacent to the treatment plant and lift stations are discussed in the sections below.

6.2.4.1 Wastewater Treatment Plant. The North Post Landfill, AOC 9, is the only property of environmental concern adjacent to the WWTP. The landfill occupies approximately 7 acres and abuts the west side of the WWTP. A vegetated wetland area lies to the south of the landfill. The landfill operated from the late 1950s until 1978 and primarily received construction debris and tree stumps (Biang et.al., 1992).

6.2.4.2 Sewage Lift Stations. Six aboveground lift stations are part of the sewage collection system. They are located in Building 3812 (main sewage lift station), Building 622, Building 1006, Building 1427, Building 3711, and Building 3802.

6.2.4.2.1 Building 3812 Lift Station. The Building 3812 Lift Station is the main sewage lift station and is south of MAAF. No properties of environmental concern were located adjacent to the Lift Station.

6.2.4.2.2 Building 622 Lift Station. The Building 622 Lift Station is west of the U.S. Army Reserves storage building, Building 622, identified as AREE 61T and SA 43P. AREE 61T investigations included reviewing the historical use of Building 622 and surrounding properties. The Reserves have occupied the building for approximately 1.5 years, before which it was used as a community center by the Enlisted Wives' Association (Arthur D. Little, 1995a). SA 43P investigated a historical gas station used during WWII to support military operations. A UST from SA 43P was reportedly moved to SA 43I and installed as a second UST at that station (ABB, 1995b).

6.2.4.2.3 Building 1006 Lift Station. The Building 1006 Lift Station is located south of historical spill site AREE 69AC, in the Verbeck Housing Area. AREE 69AC is located immediately north and northeast of Building 1004. Three fuel oil UST fill pipes are located just north of Building 1004 and are surrounded by concrete

containment rings. AREE 69AC investigated a 10 to 15-gallon No. 4 fuel oil spill that occurred in October 1980 in the fuel containment ring area (Arthur D. Little, 1995b).

AOC 69W is located to the south of Building 1006. In 1978, a release of approximately 400 gallons of oil occurred from the UST at the Fort Devens Elementary School. Fuel oil contaminated the surrounding soil and reached Willow Brook. The spill was cleaned up, but additional site investigations were performed in 1994 (Arthur D. Little, 1995b).

6.2.4.2.4 Building 1427 Lift Station. The Building 1427 Lift Station is located at the corner of Patton and Barnum Roads, south of AREE 61AX and AREE 63AP. AREE 61AX investigated the commissary (Building 1410) parking lot on the corner of Dakota Street and Saratoga Street. The commissary was constructed in 1991, and the parking lot contains four oil-water separators. The separators are located within stormwater catch basins and discharge into a drainage swale southeast of the parking lot. AREE 63AP investigated the removal of a 1,500-gallon UST by Environmental Applications, Inc., in 1988 (Arthur D. Little, 1995c).

6.2.4.2.5 Building 3711 Lift Station. The Building 3711 Lift Station is on Barnum Road. No properties of environmental concern were located adjacent to the Lift Station.

6.2.4.2.6 Building 3802 Lift Station. The Building 3802 Lift Station located south of MAAF, is adjacent to five AREEs, two SAs, and one AOC: AREE 69AE, AREE 69I, AREE 69J, AREE 61AG, AREE 61Y, SA 30, SA 47, and AOC 50.

Historical spill area AREE 69AE, investigated a 60 by 80-foot dirt lot located immediately north of Building 3809, the MAAF petroleum, oil, and lubricants shed. In July 1988, 15 to 20 gallons of JP-4 fuel spilled on the lot. The Fort Devens Fire Department responded to the spill and the area was later excavated to a depth of 4 feet by the Fort Devens Roads and Railroads.

Historical spill area AREE 69I, investigated 70 gallons of JP-4 fuel spilled on a paved area by Building 3809 on April 9, 1989. The spill was caused by a faulty fuel shut-off nozzle and covered a 20 by 40-foot area. Fort Devens Roads and Railroads responded to the spill using absorbent pads and Speedi-Dri.

Historical spill area AREE 69J, investigated 15 gallons of helicopter fuel spilled on the concrete floor of Building 3818, an airplane hangar. Thermal expansion of the fuel caused it to flow out of a fuel tank and onto the hangar floor. The spill was contained with absorbent pads and covered with a layer of Speedi-Dri (Arthur D. Little, 1995b).

AREE 61Y investigated the airfield hangars and air traffic control tower at MAAF. The airfield most recently operated as a heliport, but currently is no longer servicing aircrafts. There is a 12,000-gallon fuel oil UST associated with Building 3813, and a 400-gallon fuel oil UST at Building 3818. A 1,000-gallon waste oil UST was removed from Building 3813 in 1992 (Arthur D. Little, 1995a).

AREE 61AG investigated the Petroleum, Oil, and Lubricants office Building 3809 at MAAF. A 1,000-gallon No. 2 fuel oil UST was removed from the site in 1989. This site was cross-referenced to AREE 63AQ. AREE 63AQ was approved for NFA in October 1995 (Arthur D. Little, 1995a).

SA 30 investigated a small east drum storage area located at the northern end of the MAAF taxiway and a west drum storage area located on broken pavement at the end of an aircraft defueling pad. The west drum storage area had room for 10 to 15 55-gallon drums on wooden pallets and was used as a hazardous waste drum storage area from 1975 to 1990. The east storage area was used for an unknown period of time prior to 1975.

SA 47 investigated a 500-gallon heating fuel oil UST located at the base of the flight control tower. The tank was used from 1970 to 1989, when it was removed and replaced with a new 500-gallon UST by Petroleum and Chemical Equipment Service of New Hampshire, Inc. (ABB, 1995d).

AOC 50, a WWII-era aircraft fuel system, is located on the northeast portion of North Post, south of Route 2A. The fuel system consisted of two systems, System A, which consisted of two 25,000-gallon USTs on the airfield, and System B, which consisted of three 25,000-gallon USTs south of Route 2A. Until the late 1940s, the systems received fuel from rail cars, distributed fuel to the airfield, and performed refueling of aircraft and trucks during WWII. The USTs associated with System A have been removed, but documentation does not exist on the removals. The USTs associated with System B were removed in December 1992 (ABB, 1993b).

Table 6-1: Fort Devens Well Descriptions

Well Name	Location	Year Constructed	Type of Well	Yield (MGD)	Retention Tank (Gallons)	Pump Backup Power
Grove Pond (Building 3770)	Ayer	1986 (Re-constructed)	Tubular well field 12 8-inch-diameter wells	1.1	None	Manually engaged diesel engine
Sheboken** (Building 3628)	Harvard	1941	Gravel-Packed 20-inch-diameter well	1.4	30,000	Manually engaged gas-fired engine
MacPherson (Building 3810)	Ayer	1966	Gravel-Developed 18-inch-diameter well	1.2	30,000	Manually engaged gas-fired engine
Patton (Building 3630)	Harvard	1953 (Rebuilt 1991*)	Gravel-Packed 24-inch-diameter well	1.4	30,000	Manually engaged gas-fired engine

* Rebuilt after an accidental explosion and fire; was back-flushed and redeveloped.
**Currently removed.

Table 6-2: Fort Devens Sewage Lift Stations

Building Number	Location	Lift Station Capacity (GPM)
3711	Barnum Road	400
3812	South end of MAAF	3,000
3802	North end of MAAF	200
1427	Near intersection of Patton and Barnum Roads	900
622	South side of Sports Arena	200
1006	Verbeck Housing	200
None	Manhole in front of Building 3773	100
None	East of Queenstown Street, by Cutler Army Hospital near the golfhouse	600

7.0 Hazardous Substances and Petroleum Products Management Practices and Potential Impacts

7.1 Proposed Transfer Parcel

The hazardous material and petroleum management practices associated with the proposed transfer systems were reviewed as part of the EBS. Areas of environmental concern within the proposed transfer systems are summarized in Table 7-1. Practices at each of the proposed transfer systems are described in the following sections.

The USAEC conducted a UXO survey throughout the Main and North Posts at Fort Devens. Preliminary archival investigations identified 26 sites on the Main and North Posts requiring UXO surveys. The surveys have been completed and no UXO was discovered within the transfer systems.

7.1.1 Electrical Distribution System

The Fort Devens electrical distribution system includes 3 substations, over 900 transformers, 60 miles of overhead lines, and 2.7 miles of underground lines. As discussed in Section 6.1.1.3, electric lines are not evaluated as part of this EBS. Hazardous material and petroleum management practices associated with the substations and transformers are discussed below.

7.1.1.1 Substations. Three substations, West Main Street Substation, Lake George Street Substation, and Patton Road Substation, distribute power to Fort Devens.

West Main Street Substation, identified as AREE 66G, is located on West Main Street between Main and North Posts. Surface soil sampling during the Supplemental Site Evaluation indicated that PCB contamination was present adjacent to electrical equipment on the west side of the substation. Since the contamination was localized, a limited removal action was recommended around the equipment at AREE 66G.

Patton Road Substation, identified as AREE 66E, is located north of Patton Road, southwest of the 2500 area. The present containment barrier and an oil-water separator were installed in 1989. The containment barrier is a concrete pad around the transformer with drains that channel any spilled oil into the oil-water separator. PCB contamination was not detected in surface soil samples collected from the substation. Releases from equipment at the substation will be captured by the containment pad. AREE 66E was approved for no further action (NFA) in November 1995.

7.1.1.2 Transformers. Approximately 900 transformers exist throughout Fort Devens. The AREE 66 Transformer Study conducted in 1993 investigated PCB oil spills from five transformers. These five were chosen for sampling based on the extent of the spill, the nature of the spill, and a visual inspection of the site. The five sites were identified as AREE 66A, 66B, 66C, 66D, and 66F.

AREE 66A, Transformer No. 6414125, is located behind Building 3752 near Barnum Road. Three soil samples were collected from the base of the utility pole, and one sample had a PCB concentration above the Massachusetts Contingency Plan (MCP) accepted level of 2.0 micrograms per gram (µg/g) for PCBs in S-1 soil. Excavation in the area of contamination at AREE 66A was recommended.

AREE 66B is a transformer located next to Building 1634. Three soil samples were collected from this location, and one of the samples contained a PCB concentration above 2.0 µg/g. Excavation of the contaminated soil at AREE 66B was recommended.

AREE 66C, Transformer No. 7671845, is located on a pole next to Building 2657 adjacent to the golf course water tank. Three soil samples were collected at this location, and one of the samples contained a PCB concentration above 2.0 µg/g. In 1994, OHM removed asphalt and soil in the area of contamination. NFA was recommended for this site.

AREE 66D, Transformer No. 6573226, is located next to Building 357 at the corner of MacArthur and Dakota Streets. Three soil samples were collected at this location, and none of the samples indicated PCBs in excess of the recommended limit of 2.0 µg/g. AREE 66D was approved for NFA in November 1995 (Arthur D. Little, 1995e).

AREE 66F, Transformer #6287290, is a pole-mounted transformer next to Building 2028 that contained PCB oil at concentrations of 1,115 ppm. Four soil samples collected from this location contained PCB concentrations greater than the recommended 2.0 µg/g limit for S-1 soils (Arthur D. Little, 1995e). On December 1, 1993, contaminated soil was removed by Wehran and Franklin Environmental under the direction of Environmental Soil Solutions. Approximately 9 cubic yards of PCB-contaminated soil was removed based on field screening results, visible staining, and immunoassay PCB test kit results. The lateral extent of the excavation was from approximately 6 to 8 feet and the depth of excavation ranged from 1 to 2.5 feet. The soil was transported to a secured hazardous waste landfill located in Model City, New York on December 22, 1993. PCB levels have been reduced to background levels and the site is considered clean according to applicable Massachusetts regulations. NFA was recommended for this site (Myette and Folan, 1993).

7.1.2 Gas Distribution System

The gas master meter and gas regulator currently are owned and operated by BGC and are located in a building near the intersection of Patton and Barnum Roads.

7.1.3 Potable Water Distribution System

The potable water distribution system includes four wells on Main and North Post and two elevated steel storage tanks, S-2473 and S-2475. Hazardous material and petroleum management practices associated with the wells and storage tanks are discussed below.

7.1.3.1 Water Supply Wells. Grove Pond Well, Sheboken Well, McPhearson Well, and Patton Well supply Fort Devens with potable water. Properties within a 400-foot radius, Zone I, of the supply well are considered to be part of the proposed transfer property. No properties of environmental concern were identified anywhere within Zone I of the well.

Two USTs are associated with the Grove Pond and Sheboken water supply wells. A 1,000-gallon, No. 2 fuel oil UST was installed at Grove Pond Well in 1963. No release has been documented from the UST at the Grove Pond Well. A 1,000-gallon, No. 2 fuel oil UST was installed at Sheboken Well in 1968. During the removal of a vaulted UST at Sheboken Well in September 1995, petroleum contamination was observed in the surrounding soils. The contamination was detected under the foundation of Building 3628. An Immediate Response Action (IRA) was performed including the removal of contaminated soils and the installation of two ground water monitoring wells. No contamination was detected in the ground water. An IRA status report was issued by OHM Corporation in November 1995.

Asbestos surveys were conducted at Grove Pond Well (Building 3770), Sheboken Well (Building 3628), Patton Well (Building 3630), and McPhearson Well (Building 3810) on July 1, 1994. Asbestos-containing roofing sealant was identified in Building 3770 and was assumed to be in Buildings 3628, 3630, and 3810. As part of the UST spill remediation, Building 3628 has been destroyed. Vinyl floor tiles and associated mastic were present in Building 3630 and assumed to contain asbestos. Building 3810 contained asbestos magnesia/calciform pipe insulation.

7.1.3.2 Water Storage Tanks. As discussed in section 6.1.3.2, potable water is stored in two elevated steel storage tanks, S-2473 and S-2475. The tanks are located on Water Tank Road in the 2400 area of Main Post. No properties of environmental concern were identified at the water storage tanks.

7.1.4 Sanitary Sewer System

The sanitary sewer system at Fort Devens includes the WWTP and associated sewage collection system. The collection system consists of 65 miles of piping and six lift stations. Hazardous material and petroleum management practices associated with the WWTP and sewage lift stations are discussed below.

7.1.4.1 Wastewater Treatment Plant. The Fort Devens WWTP is located on the North Post approximately 700 feet west of the Nashua River. The WWTP is approximately 200 feet above the surrounding land. Each main component of the WWTP is also an SA: SA 19, Imhoff Tanks; SA 20, Rapid Infiltration Sand Beds; and SA 21, Sludge Drying Beds (ABB, 1993a).

The SAs were investigated for the presence of environmental contamination associated with both the historical and current uses of the WWTP. A site investigation was conducted at SAs 19, 20, and 21. A supplemental site investigation was conducted at SA 21 to further investigate inorganic concentrations at the former supernatant discharge pipe. The detrimental effects of a remedial action on the surrounding wetlands for the purposes of remediating inorganics-contaminated soil at SA 21 outweighed the current risks posed by the contaminants. An NFA determination for SAs 19, 20, and 21 was approved in October 1995 (ABB, 1994a).

Asbestos surveys were conducted in Buildings 3804 and 3835 of the WWTP on July 1, 1994. No asbestos-containing material (ACM) was detected.

7.1.4.2 Sewage Lift Stations. The Fort Devens sewage collection system works by gravity flow except in eight areas that require sewage lift stations. Six of the lift stations are aboveground and two are underground. All sewage goes through the Main Sewage Lift Station, Building 3812, where preliminary sewage treatment is also conducted in an underground grit chamber and comminutor. No areas of contamination were associated with any of the lift stations.

Historically, two USTs were associated with sewage lift stations, but both have been removed. A 1,000-gallon diesel UST installed in 1981, was removed from the lift station at Building 1427 by ATEC Environmental on January 8, 1992. The tank excavation was backfilled and 63 square feet of loam was added. No evidence of contamination was detected. A 1,000-gallon diesel UST was removed from the Building 3812 lift station by ATEC Environmental on May 28, 1992. The tank excavation was closed, lined, backfilled, and covered with 144.5 square feet of turf. When in operation, both tanks had been managed by Fort Devens EMO (Fort Devens EMO, 1995a).

Asbestos surveys were conducted at the lift stations in Buildings 1427, 3711, 3802, and 3812 in 1994. Surveys were not conducted at the lift stations at Building 622 or 1006 because the lift stations are located aboveground, outside the building. Only roofing sealant that was assumed to contain asbestos was identified in Buildings 1427 and 3812.

7.2 Adjacent Properties

To identify sources of contamination on adjacent property, 18 AREEs, 16 SAs, and 2 USTs were reviewed. Properties adjacent to each utility system are discussed in the following sections and are summarized in Table 7-2.

In addition, preliminary results of the USACE Main and North Posts UXO Survey were reviewed. Preliminary archival investigations identified 26 sites within the North and Main Posts that potentially contained UXO. Ongoing fieldwork associated with the survey began in March 1995, and was completed in November 1995. If no UXO was found, the area investigated was no longer considered a potential UXO site. Areas potentially containing UXO are identified during the discussion of each proposed transfer system.

7.2.1 Properties Adjacent to Electrical Distribution System

Potential sources of contamination on property adjacent to the three substations were reviewed and are discussed in the following sections.

7.2.1.1 West Main Street Substation. West Main Street Substation is located on West Main Street between Main and North Posts. No properties of concern were identified adjacent to West Main Street Substation.

7.2.1.2 Lake George Street Substation. Lake George Street Substation is located west of Lake George Street, southeast from Building 2602. Four properties containing nine AREEs and three SAs were identified adjacent to the Lake George Street Substation.

7.2.1.2.1 AREE 61P/SA43L, AREE 63AY, and AREE 69AM. These AREEs are located at the corner of Lake George Street and Hattonsville Road, adjacent to Building 2601. As discussed in Section 6.2.1.2.1, the area includes a historical gas station (Building 2681) and a motor repair facility (Building 2601).

AREE 61P addressed a buried dry well at Building 2681, a cesspool buried south of the front of Building 2601, and two floor drains in Building 2601. Geophysical surveys were conducted to locate the cesspool and drywell, and subsurface samples were collected. Sediment samples were obtained from the floor drains. Contamination

associated with the floor drains in 2601 was recommended for removal prior to future site renovations or demolitions (Arthur D. Little, 1995a). Removal actions were conducted at both the dry well and the cesspool by OHM during the Spring of 1995. AREE 61P was recommended for NFA, pending issuance of the Final Closure Report (Applebee, 1995).

SA 43L investigated three 5,000-gallon tanks associated with a historical gas station at Building 2681. Franklin Environmental removed two gasoline USTs in November 1989 and a third waste oil UST was removed in December 1989. No evidence of soil contamination was detected during all three excavations. A final NFA decision was approved for SA 43L in January 1995 (ABB, 1994b).

AREE 63AY investigated the removal of a 1,000-gallon waste oil UST from a paved area on the southern side of Building 2601. The UST was removed by Franklin Environmental on December 5, 1989. An initial excavation was performed at the time of the tank pull, and a second excavation was conducted on January 11, 1990. Based on sampling results, AREE 63AY was approved for NFA in October 1995.

AREE 69AM investigated a 15 to 20-gallon fuel oil spill that occurred in the paved lot behind Building 2601 on March 15, 1978. The spill occurred while moving a backhoe that contained fuel oil in its front bucket. Fort Devens Roads and Railroads cleaned up the spill with layers of sand, bio-sorbate, and hay. An Army officer performed a follow-up inspection. AREE 69AM was approved for NFA in November 1995 (Arthur D. Little, 1995b).

7.2.1.2.2 AREE 61Q/SA43M, AREE 63AZ, and AREE 63BA. These AREEs are located on the west side of Lake George Street, approximately 300 feet east of the substation. The area includes a historical gas station, Building 2682, and a motor repair facility, Building 2613.

AREE 61Q investigated the cesspool associated with Building 2613, the dry well associated with Building 2682, and two drains in Building 2613. Geophysical surveys were conducted to locate the cesspool and drywell. No geophysical signature was detected that could have been attributed to the former dry well, but subsurface sampling was conducted at the determined cesspool location. Although no removal action was suggested for the cesspool, closure of the cesspool as an underground injection system was recommended. Based on sampling results, AREE 61Q was approved for NFA in October 1995 (Arthur D. Little, 1995a).

SA 43M studied two 5,000-gallon USTs at a historical gas station at Building 2682. The tanks were removed by Kurz Associates in 1989, and no evidence of holes or pitting in the tanks was observed. An NFA decision was issued for SA 43M in January 1994 (ABB, 1994).

AREE 63AZ and AREE 63BA addressed Tanks 0011 and 0012, respectively. Each tank was a 1,000-gallon No. 2 fuel oil UST that was removed by Franklin Environmental on December 5, 1989. Excavations at AREE 63AZ were performed at the time of the tank pull and on January 11, 1990. Excavations at AREE 63BA were also performed at the time of the tank pull, on January 11, 1990, and on February 15, 1990. Based on sampling results, both sites were approved for NFA in October 1995 (Arthur D. Little, 1995c).

7.2.1.2.3 AREE 63AG, AREE 63AI, and AREE 63AJ. These AREEs are near Building 2602. AREE 63AG is south of Building 2602, and AREE 63AI and AREE 63AJ are north of Building 2602. AREE 63AG investigated a 1,000-gallon No. 2 fuel oil UST removed by Zecco in December 1987. Soil and ground water samples collected during the AREE 63AG investigation did not indicate the presence of total petroleum hydrocarbon (TPHC) contamination greater than the MCP Method 1 S-1, GW-1 standard. AREE 63AI and 63AJ were removed by Zecco in 1987. Soil and ground water samples from the AREEs did not indicate the presence of TPHC contamination greater than the MCP Method 1 S-1, GW-1 standard. All three AREEs were approved for NFA in October 1995 (Arthur D. Little, 1995c).

7.2.1.2.4 SA 13, Lake George Street Landfill. SA 13 occupies approximately 1 acre of land west of Lake George Street near the intersection of Hattonsville Road. The site was used from 1965 to 1975. Potential contamination includes construction debris, tree trunks, and possibly waste oil. A site investigation concluded that soil contamination was not directly attributable to SA 13 and there was no indication that former landfilling operations had impacted surrounding ground water. The Lake George Street Landfill is included in the Landfill Consolidation Feasibility Study, which has not been finalized as of the date of this report.

7.2.1.3 Patton Road Substation. There are two sites considered to be adjacent to the Patton Road Substation. The historical Transportation Motor Pool, Building 2517, and UST-38 are located northwest of the Patton Road substation. The Transportation Motor Pool includes AREE 61O, AOC 63AX, and SA 43K. The area is paved and surrounded by a chain-link fence.

AREE 61O addressed a dry well associated with a historical gas station. A 1952 survey could not find the dry well. Due to the results of Phase I dry well investigations at AREEs 61F, 61P, and 61AF being recommended for NFA, the dry well at AREE 61O was not investigated. The area is completely paved and all drains and oil-water separators discharge to the sanitary sewer. AREE 61O has been recommended for NFA and the associated historical UST, AOC 63AX, which is located within AREE 61O, is undergoing further investigation (Arthur D. Little, 1995a).

AOC 63AX investigated a previously removed 1,000-gallon, single-walled, steel, waste oil UST located adjacent to the southwest side of Building 2517. The UST was removed in February 1989 by ATEC Environmental along with 100 cubic yards of contaminated soil. Although no significant soil contamination was detected in soil samples collected during the site investigation, compounds typically associated with waste oils (benzene, 1,1-dichloroethene, and trichloroethene) were detected in ground water samples. As a result, additional site investigation activities were recommended at AOC 63AX (Arthur D. Little, 1995c).

SA 43K was investigated to determine if abandoned tanks or residual contamination from the historical gas station was present. A UST was detected and removed by ATEC Environmental in September 1992. Sampling results indicated that contamination associated with the UST was removed during the tank excavation. An NFA decision was issued in 1994 (ABB,1994d).

UST-0038 was a 1,000-gallon, No. 2 fuel oil tank associated with Building 2519. ATEC Environmental removed the tank on January 21, 1992. The tank excavation was lined, backfilled, and covered with 144 square feet of loam. NFA was recommended for this site (Penta, 1995).

In addition, Patton Road Substation is adjacent to UXO Site No. 25, Area No. 1. UXO was identified and removed from this site in August and September 1995. The site has been recommended for NFA.

7.2.2 Gas Distribution System

The BGC meter house is located near the intersection of Patton Road and Barnum Road. The meter house is adjacent to UXO Site No. 19, Area No. 15. The site was found not to contain UXO and has been recommended for NFA.

7.2.3 Potable Water Distribution System

Potential sources of contamination on property adjacent to the four ground water wells and the two water storage tanks were reviewed. Properties adjacent to the underground distribution lines were not reviewed. The EBS only examined those properties adjacent to aboveground structures.

7.2.3.1 Sheboken Well. Sheboken Well is located in Building 3628 on Sheridan Road, south of Mirror Lake. AREE 61BG, SA 17, UXO Site No. 24, and UXO Site No. 26 are located within its Zone II.

AREE 61BG is the Sheboken Well Disposal Site located off Sheridan Road, behind the Sheboken Well. The entrance to the area is secured by a jersey barrier and a locked fence, but the sides of the area are not secured. Debris was removed and further sampling indicated no contamination. AREE 61BG was approved for NFA in October 1995 (Arthur D. Little, 1995a).

Little Mirror Lake and Mirror Lake, SA 17, are on Mirror Lake Road near the Salerno Circle Housing Area. The site investigation indicated that no UXO is remaining in Mirror Lake. In addition, neither explosives nor metal contamination is present in the sediment and surface water adjacent to areas where UXO has been identified and removed. A draft NFA decision was issued for this site in June of 1995 (Arthur D. Little, 1995e). USACE is currently completing the removal of approximately 44 drums from the lake (Arthur D. Little, 1995f).

UXO Site No. 24, Area No. 12, and Site No. 26, Area No. 18 are adjacent to Sheboken Well. No UXO was found at these sites and they have been recommended for NFA.

7.2.3.2 Patton Well. Patton Well is located south of Patton Road, northeast of Mirror Lake. SA 17; SA 24; AOC 40; UXO Site No. 24, Area No. 12; and UXO Site No. 22, Area No. 13 lie within its Zone II. SA 17 is discussed in Section 7.2.3.1, Sheboken Well, above.

SA 24, waste explosives storage bunker 187, is in the magazine area in the southeastern portion of Main Post. No explosives were detected in surface soil samples collected around the bunker. The bunker itself is structurally sound, and no evidence of releases of explosives or hazardous substances to the environment were observed during the site investigation. An NFA decision has been approved for SA 24 (USAEC, 1993). The area is included in the Reserve Enclave.

AOC 40, Cold Spring Brook Landfill, occupies approximately 4 acres of land along the edge of Patton Road in the southeastern part of Main Post. A remedial investigation conducted at this site determined that the landfill soil, as well as Cold Spring Brook Pond surface water and sediments, were contaminated. Average fish tissue concentrations of fish collected from Cold Spring Brook Pond exceeded regional averages for dichlorophenyl-dichloro-ethylene (DDE), iron, manganese, and zinc (ABB, 1994e). A Proposed Remediation Plan was being drafted when regulatory agencies and the Massachusetts Government Landbank questioned the adequacy of the waste characterization. This issue is discussed further in Section 9.0.

UXO Site No. 24, Area No. 12, and Site No. 22, Area No. 13 were found not to contain UXO and have been recommended for NFA.

7.2.3.3 Grove Pond Well. UXO Site No. 6, Area No. 10 is within the Grove Pond Zone II. This site was found not to contain UXO and has been recommended for NFA.

7.2.3.4 McPhearson Well. UXO Site No. 4, Area No. 8 is within the McPhearson Well Zone II. This site was found not to contain UXO and has been recommended for NFA.

7.2.3.5 Water Storage Tanks. Two elevated steel storage tanks, S-2473 and S-2475, are located on Water Tank Road in the 2400 area of Main Post. Four properties of environmental concern are adjacent to the tanks: AREE 63I, AREE 69C, SA 56, and UST-32.

AREE 63I evaluated a 1,000-gallon, single-walled, steel, No. 2 fuel oil UST located adjacent to the southwestern corner of Building 2434. The tank was removed by ATEC on January 13, 1992. A remedial excavation was performed on August 5, 1992. Based on sampling results, NFA was approved for AREE 63I in October 1995 (Arthur D. Little, 1995c).

AREE 69C and SA 56 are both located at Building 2417. AREE 69C, was referred to SA 56. SA 56 is a historical 1,000-gallon, No. 2 fuel oil UST removed by Franklin Environmental. A total of 141 cubic yards of contaminated soil were removed, and the excavation was backfilled with clean soil. The site investigation identified soil contamination still present at the UST excavation, and a removal action has occurred at SA 56. A final closure report has been issued for the site, but an NFA decision has not yet been approved.

UST-32 refers to a 1,000-gallon, No. 2 fuel oil UST located at Building 2432. The tank was removed by ATEC on January 14, 1992. The excavation was lined, backfilled, and covered with 325 square feet of loam. The site continues to undergo periodic monitoring of the ground water and has been recommended for NFA (Fort Devens EMO, 1995b).

7.2.4 Properties Adjacent to the Sanitary Sewer System

The sanitary sewer system at Fort Devens includes a wastewater treatment plant and six aboveground sewage lift stations. Properties adjacent to the treatment plant and lift stations are discussed in sections below.

7.2.4.1 Wastewater Treatment Plant. The North Post Landfill, AOC 9, operated from the late 1950s to 1978 for disposal of tree stumps, limbs, building debris, automobiles, automobile parts, etc. Potential contamination includes construction debris from approximately 100 demolished buildings, junked automobiles and automobile parts, asphalt, bed springs, 5-gallon cans, and uncharacterized wastes. An NFA decision was issued for AOC 9 in December 1993 (ABB, 1993). The landfill

will be included in the Landfill Consolidation Feasibility Study due in December of 1995.

The WWTP is located adjacent to UXO Site No. 1, Area No. 6. This site is scheduled for clearance. If ongoing UXO fieldwork in the area finds no UXO, it will no longer be considered a UXO site.

7.2.4.2 Sewage Lift Stations. Six aboveground lift stations are part of the sewage collection system: Building 3812 (main sewer lift station), Building 622, Building 1006, Building 1427, Building 3711, and Building 3802.

7.2.4.2.1 Building 3812 Lift Station. The Building 3812 Lift Station is located adjacent to UXO Site No. 1, Area No. 6. This site is scheduled for clearance. If fieldwork in the area finds no UXO, the area will no longer be considered a UXO site.

7.2.4.2.2 Building 622 Lift Station. The Building 622 Lift Station is located west of the U.S. Army Reserves storage building. The storage building includes AREE 61T and SA 43P. AREE 61T presents minimal potential for releases of contaminants or hazardous materials and was approved for NFA in October 1995 (Arthur D. Little, 1995a). The 5,000-gallon UST associated with SA 43P was reportedly moved and installed at SA 43I as a second UST at that station prior to 1952. Subsurface soil samples taken from SA 43P showed no significant environmental contamination, and an NFA decision was issued for the area (ABB, 1995b). Building 622 is located adjacent to UXO Site No. 13, Area No. 11. No UXO has been found at this site and it is recommended for NFA.

7.2.4.2.3 Building 1006 Lift Station. The Building 1006 Lift Station is located south of AREE 69AC in the Verbeck Housing Area and adjacent to UXO Site No. 8, Area No. 4. AREE 69AC investigated a 10 to 15-gallon No. 4 fuel oil spill that occurred in October 1980 in a fuel containment ring. Surface soil sampling of the area indicated that contamination in the containment ring either equalled or only slightly exceeded MCP Standards. Due to sampling results, AREE 69AC was approved for NFA in October 1995 (Arthur D. Little, 1995b). UXO Site No. 8 was determined not to contain UXO and has been recommended for NFA.

AOC 69W is located to the south of Building 1006. In 1978, a release of approximately 400 gallons of fuel oil occurred from the UST at the Fort Devens Elementary School. The contaminated soil and surface water was reportedly cleaned up at the time of the spill. Supplemental site investigations performed in 1994 found residual soil and ground water contamination. The site has been recommended for additional site investigations (Arthur D. Little, 1995b).

7.2.4.3.4 Building 1427 Lift Station. Building 1427 Lift Station is located at the corner of Patton and Barnum Roads, south of AREE 61AX and AREE 63AP and adjacent to UXO Site No. 19, Area No. 15.

AREE 61AX addressed the commissary (Building 1410) parking lot located on the corner of Dakota and Saratoga Streets. No visible stains or releases were detected from the oil-water separators. AREE 61AX was approved for NFA in October 1995.

AREE 63AP addressed the removal of a 1,500-gallon UST by Environmental Applications, Inc., in 1988. Sampling results did not indicate contamination; therefore, AREE 63AP was approved for NFA in October 1995 (Arthur D. Little, 1995c).

UXO Site No. 19 was found not to contain UXO and has been recommended for NFA.

7.2.4.2.5 Building 3711 Lift Station. The Building 3711 Lift Station is on Barnum Road. No properties of environmental concern were located adjacent to the Lift Station.

7.2.4.2.6 Building 3802 Lift Station. The Building 3802 Lift Station is adjacent to eight properties of environmental concern. Each property is described briefly below.

AREE 69AE investigated a 60 by 80-foot dirt lot located immediately north of Building 3809, the airfield petroleum, oil, and lubricants shed. In July 1988, 15 to 20 gallons of JP-4 fuel spilled at the lot. Surface and subsurface soil samples indicated soil contamination that exceeded MCP standards. AREE 69AE was, therefore, recommended for a removal action. As of the date of this EBS, this site has not been approved for NFA.

AREE 69I addressed 70 gallons of JP-4 fuel spilled by Building 3809 on April 9, 1989. The spill was limited to a paved area and did not contaminate adjacent soil. AREE 69I was approved for NFA in October 1995.

AREE 69J addressed 15 gallons of helicopter fuel spilled on the concrete floor of Building 3818, an airplane hangar. The indoor spill was contained and did not contaminate adjacent drains. AREE 69J was approved for NFA in October 1995 (Arthur D. Little, 1995b).

AREE 61Y investigated the airfield hangars and air traffic control tower at MAAF. A 1,000-gallon waste oil UST was removed from Building 3813 in 1992. No residual contamination was detected. Based upon document reviews and site inspections, AREE 61Y was approved for NFA in October 1995 (Arthur D. Little, 1995c).

AREE 61AG investigated the Petroleum, Oil, and Lubricants Office Building 3809 at MAAF. A 1,000-gallon No. 2 fuel oil UST was removed from the site in 1989. This site was cross-referenced to AREE 63AQ which was approved for NFA in October 1995. AREE 61AG was also approved for NFA in October 1995 (Arthur D. Little, 1995a).

SA 30, the MAAF drum storage area, includes the east and the west drum storage areas located at the northern end of the airplane taxiway. Soil contamination did not pose an unacceptable risk to human or ecological health, and ground water had not been impacted. An NFA decision was issued for SA 30 in January 1995 (ABB, 1995a).

SA 47 investigated a 500-gallon heating fuel oil UST located at the base of the flight control tower. Sampling and analysis of soil and ground water did not identify elevated levels of petroleum contamination. An NFA decision for SA 47 was issued in December 1993 (ABB, 1995d).

AOC 50, the WWII-era aircraft fuel system, is located on the northeast portion of North Post, south of Route 2A. During a site investigation, it was determined that no unacceptable risk to human health or the environment was posed by system A, but that distribution of TPHCs and tetrachloroethylene (PCE) at system B was not completely characterized (ABB, 1993b). During a supplemental site investigation, potential free-phase PCE-contaminated soil and a PCE ground water plume were investigated. A soil vapor extraction (SVE) system was installed at AOC 50 with a goal for soil remediation of 500 parts per billion PCE (IT, 1994). Details of the SVE system and its operation are discussed in Section 9.

Table 7-1: Potential Sources of Contamination within the Proposed Transfer Systems

Utility Structure	Potential Source of Contamination	Associated Investigation	Status
Electrical Distribution System			
West Main Substation	PCB Leak	AREE 66G	RA
Lake George Street Substation	None	None	NA
Patton Road Substation	PCB	AREE 66E	NFA
Transformers	Building 3752 Transformer #6414125 Building 1634 Building 3657 Transformer #7671845 Building 357 Transformer #6573226 Building 2025 Transformer #6287290	AREE 66A AREE 66B AREE 66C AREE 66D AREE 66F	RA RA RNFA NFA RNFA
Gas Distribution System			
BGC Meter Building	None	None	NA
Potable Water Distribution System			
Sheboken Well	Fuel Oil Release	IRA	IRA
Patton Well	Asbestos	AREE 65	NA
Grove Pond Well	Asbestos	AREE 65	NA
McPhearson Well	Asbestos	AREE 65	NA
Water Storage Tanks S-2476 and S-2475	None	None	NA

IRA = Immediate Removal Action
NA = Not Applicable
NFA = No Further Action
RNFA = Recommended No Further Action
RA = Removal Action

Table 7-1: Potential Sources of Contamination within the Proposed Transfer Systems (continued)

Utility Structure	Potential Source of Contamination	Associated Investigation	Status
Sanitary Sewer Distribution System			
Wastewater Treatment Plant	Imhoff Tanks Rapid Infiltration beds Sludge Drying Beds	SA 19 SA 20 SA 21	NFA NFA NFA
Main Sewer Lift Station	Petroleum UST Asbestos Roof Sealant	Removal AREE 65	NFA NA
Lift Station at Building 622	None	None	NA
Lift Station at Building 1006	None	None	NA
Lift Station at Building 1427	Petroleum UST Asbestos Roof Sealant	Removal AREE 65	NFA NA
Lift Station at Building 3711	None	None	NA
Lift Station at Building 3802	None	None	NA

IRA = Immediate Removal Action
NA = Not Applicable
NFA = No Further Action
RNFA = Recommended No Further Action
RA = Removal Action

Table 7-2: Potential Sources of Contamination on Adjacent Property

Utility Structure	Potential Source of Contamination	Associated Investigation	Status
Electrical Distribution System			
West Main Substation	None	None	NA
Lake George Street Substation	Historical Motor Pool, Building 2601	AREE 61P	RNFA
	Historical Motor Pool, Building 2613	AREE 61Q	NFA
	Waste oil UST	AREE 63AG	NFA
	Building 2606, Zecco UST #8	AREE 63AI	NFA
	Building 2619, Zecco UST #3	AREE 63AJ	NFA
	Building 2601, Tank 0013	AREE 63AZ	NFA
	Building 2613, Tank 0012	AREE 63BA	NFA
	Building 2613, Tank 0011	AREE 63AY	NFA
	Fuel oil spill	AREE 69AM	NFA
	Landfill No. 9	SA 13	LCFS
	Building 2601 Leaking UST	SA 43L	NFA
	Historical Gas Station, Building 2613	SA 43M	NFA
Patton Road Substation	Transportation Motor Pool	AREE 610	RNFA
	Waste Oil UST	AOC 63AX	RI
	Historical Gas Station, Building 178	SA 43K	NFA
	No. 2 Fuel Oil UST, Building 2519	UST-38	NFA
Gas Distribution System			
BGC Meter Building	None	None	NA
Potable Water Distribution System			
Sheboken Well	Sheboken Well Disposal Site	AREE 61BG	NFA
	Mirror Lake	SA 17	RA
Patton Well	Mirror Lake and Little Mirror Lake	SA 17	RNFA
	Waste Explosives Storage Bunker	SA 24	NFA
	Cold Spring Brook Landfill	AOC 40	LCFS
Grove Pond Well	None	None	NA

NA = Not Applicable
RA = Removal Action
SI = Site Investigation
NFA = No Further Action
RNFA = Recommended No Further Action
LCFS = Landfill Consolidation Feasibility Study

Table 7-2: Potential Sources of Contamination on Adjacent Property (continued)

Utility Structure	Potential Source of Contamination	Associated Investigation	Status
McPhearson Well	None	None	NA
Water Storage Tanks S-2476 and S-2475	Building 2434, Tank 0033 No. 2 Fuel Oil Spill, Building 2417 Building 2417 LUST No. 2 Fuel Oil UST, Building 2432	AREE 63I AREE 69C SA 56 UST-32	NFA RNFA RA NFA
Sanitary Sewer Distribution System			
Wastewater Treatment Plant	North Post Landfill, No. 5 Imhoff Tanks Rapid Infiltration Beds Sludge Drying Beds	AOC 9 SA 19 SA 20 SA 21	LCFS NFA NFA NFA
Main Sewer Lift Station	None	None	NA
Lift Station at Building 622	Reserves Storage Historical Gas Station	AREE 61T SA 43P	NFA NFA
Lift Station at Building 1006	Fuel Oil Spill, Building 1004 Fuel Oil Spill, Fort Devens Elementary School	AREE 69AC AOC 69W	NFA SI
Lift Station at Building 1427	New Commissary Parking Lot Historical Gas Station	AREE 61AX AREE 63AP	NFA NFA
Lift Station at Building 3711	None	None	NA
Lift Station at Building 3802	JP-4 Fuel Spill, North of Building 3809 JP-4 Fuel Spill, Building 3809 Helicopter Fuel Spill, Building 3818 Drum Storage Area Heating Oil UST WWII Aircraft Fuel System	AREE 69AE AREE 69I AREE 69J SA 30 SA 47 AOC 50	RA NFA NFA NFA NFA Phase III SI

NA = Not Applicable
RA = Removal Action
SI = Site Investigation
NFA = No Further Action
RNFA = Recommended No Further Action
LCFS = Landfill Consolidation Feasibility Study

8.0 Relevant Information From Records Review, Interviews, and Aerial Photographs Review

Potential hazardous substances and petroleum product releases within the proposed transfer systems and adjacent areas were reviewed through a combination of the document reviews described in Sections 3.2 and 3.3, visual inspections and interviews described in Sections 3.5 and 3.6, and the aerial photographs and historical drawings review described in Section 3.4. The hazardous substances and petroleum products management practices and potential impacts are mentioned in Section 7.0. No new AOCs were identified either within the proposed transfer systems or on adjacent properties as a result of the information review.

9.0 Ongoing Response Actions

Three ongoing response actions currently exist within the proposed electrical distribution system and one response action exists in the potable water system. Response actions are not occurring in the other three proposed transfer systems. Nine response action are ongoing adjacent to the proposed transfer parcels. Response actions associated with each proposed transfer system are discussed in the following sections.

9.1 Electrical Distribution System

Three ongoing response actions currently exist within the electrical distribution system: AREE 66A, Building 3752; AREE 66B, Building 1634; and AREE 66G, the West Main Street Substation. At each AREE, site investigations detected PCB contamination in soil above the accepted level of 2.0 µg/g for S-1 soil. Excavation of the contaminated area was recommended at all three AREEs (Arthur D. Little, 1995d). The removal actions have not been completed at these sites as of December 1995.

Two ongoing response actions are located on property adjacent to the electrical distribution system. SA 13, the Lake George Street Landfill, is southeast of the Lake George Street Substation and will be included in the Landfill Consolidation Feasibility Study due in December of 1995. AOC 63AX, a UST at Building 2517, is located northwest of the Patton Road Substation and is recommended for further investigation under the CERCLA process to identify potential contamination in ground water (Arthur D. Little, 1995c).

9.2 Gas Distribution System

No response actions are ongoing within or adjacent to the gas distribution system.

9.3 Potable Water Distribution System

One response action is currently ongoing at the Sheboken Well site. An IRA report has been issued for the removal of contaminated soil from the site. In addition, Building 3628 has been removed.

Ongoing response actions at AOC 40, SA 56, and UST-32 are occurring on properties adjacent to the potable water distribution system. AOC 40, Cold Spring Brook Landfill, is located east of Patton Well. Two options are being discussed

regarding closure of AOC 40. The first option is closing the landfill in-place with an enhanced Resource, Conservation,and Recovery Act Subtitle D (composite) cap. The second option, recommended in the Landfill Consolidation Plan, is to remove the landfill. A predesign investigation at AOC 40 will be directed at defining waste extent and characteristics. A decision document for AOC 40 is expected to be issued in May 1996. SA 56 and UST-32 are located northeast of the water storage tanks. Site investigation identified soil contamination at SA 56, where a leaking UST was removed adjacent to Building 2417. Ground water contamination will be evaluated, and the closure report is under review. UST-32 has been removed and ground water is being monitored at the site (Fort Devens EMO, 1995b).

9.4 Sanitary Sewer System

Response actions at AOC 69W, AREE 69AE, AOC 9, and AOC 50 are ongoing adjacent to the sanitary sewer system. AOC 69W is located at the Fort Devens Elementary School. Supplemental site investigations have been recommended for this site to characterize the nature and extent of contamination in ground water. A draft NFA decision has been issued for AOC 9 (ABB, 1993), the North Post Landfill southwest of the WWTP. The landfill will be included in the Landfill Consolidation Feasibility Study due in December of 1995. AREE 69AE, a jet fuel spill at Building 3809, has soil contamination that exceeds MCP standards and is recommended for a removal action (Arthur D. Little, 1995b). A SVE system was installed at AOC 50 to remediate PCE-contaminated soil and ground water.

The SVE system brought PCE concentrations at AOC 50 to below concentration goals. Additional soil sampling conducted as part of the Phase II Site Investigation indicated additional PCE contamination below the water table. The Phase III data package issued in June 1995 recommended that an RI be conducted at the site. The RI work plan is expected to be issued in December 1995. It will include the installation of new monitoring wells to delineate the extent of contamination, a pilot study for air sparging to eventually replace the SVE system and a treatability study. The RI for AOC 50 is scheduled to be complete by August 1996 and the FS by October 1996.

10.0 Recommendation as to Suitability to Transfer

For this EBS, Arthur D. Little inspected the proposed transfer systems and adjacent properties and reviewed documentation of adjacent properties. Response actions are occurring at the proposed transfer systems and adjacent to the proposed systems. These response actions are nearing completion and are not expected to impact the proposed transfer systems. The gas and sanitary sewer systems are recommended for classification as suitable for transfer. The electrical and potable water systems are recommended for classification as suitable for transfer after removal actions are performed at AREE 66A, AREE 66B, AREE 66G, and Sheboken Well. It is recommended that, in accordance with DoD guidance, a hazardous substance notice is needed for Building 3770 of the potable water distribution system and for Buildings 1427 and 3812 of the sewage collection system because petroleum products were stored for one year or more at the buildings. For the potable water and sanitary sewer systems, it is recommended that a hazardous substance notice be issued for the potential presence of asbestos in Buildings 3630, 3770, and 3810 of the potable water distribution system, and Buildings 1427 and 3812 of the sanitary sewer distribution system.

11.0 Selected References

ABB Environmental Services, Inc. 1993a. *Final Site Investigation, Groups 3, 5, & 6, Fort Devens, Massachusetts.* April.

ABB Environmental Services, Inc. 1993b. *Final Site Investigation Report, Groups 2, 7, and Historic Gas Stations.* May.

ABB Environmental Services, Inc. 1993c. *No Further Action Decision Under CERCLA. Study Area 09 North Post Landfill.* December.

ABB Environmental Services, Inc. 1993d. *No Further Action Decision Under CERCLA. Study Area 47 MAAF UST.* December.

ABB Environmental Services, Inc. 1994a. *Draft No Further Action Decision Under CERCLA. Study Areas 19, 20, and 21 Wastewater Treatment Plant.* January.

ABB Environmental Services, Inc. 1994b. *No Further Action Under CERCLA. Study Area 43L Historic Gas Station Sites.* January.

ABB Environmental Services, Inc. 1994c. *No Further Action Under CERCLA. Study Area 43M Historic Gas Station Sites.* January.

ABB Environmental Services, Inc. 1994d. *No Further Action Under CERCLA. Study Area 43K Historic Gas Station Sites.* January.

ABB Environmental Services, Inc. 1994e. *Final Feasibility Study for Cold Spring Brook Landfill.* January.

ABB Environmental Services, Inc. 1995a. *No Further Action Under CERCLA. Study Area 30 Moore Army Airfield Drum Storage Area.* January.

ABB Environmental Services, Inc. 1995b. *No Further Action Decision Under CERCLA. Study Area 43Q Historic Gas Station Sites. Fort Devens, Massachusetts.* January.

Applebee, Mark. 1995. USACE. Telephone conversation with Heather Schaeffer of Arthur D. Little. July 17.

Arthur D. Little, 1994. *Final Community Environmental Response Facilitation Act (CERFA) Report, Fort Devens, Massachusetts.* April.

Arthur D. Little, 1995a. *Final Maintenance and Waste Accumulation Areas (AREE 61) Report, Base Realignment and Closure Environmental Evaluation, Fort Devens, Massachusetts.* June.

Arthur D. Little, 1995b. *Final Past Spill Sites Report (AREE 69) Report, Base Realignment and Closure Environmental Evaluation, Fort Devens, Massachusetts.* June.

Arthur D. Little, 1995c. *Final Previously Removed Underground Storage Tank (AREE 63) Report, Base Realignment and Closure Environmental Evaluation, Fort Devens, Massachusetts.* June.

Arthur D. Little, 1995d. *Final Site Investigation Report, Fort Devens Main Post Site Investigation, Fort Devens, Massachusetts.* June.

Arthur D. Little, 1995e. *Final Transformer Study Report (AREE 66), Fort Devens Main Post Site Investigation, Fort Devens, Massachusetts.* June.

Arthur D. Little, 1995f. *No Further Action Decision Under CERCLA, Study Area 17: Little Mirror Lake and Mirror Lake, Fort Devens Main Post Site Investigation, Fort Devens, Massachusetts.* June.

Biang, C.A., R.W. Peters, R.H. Pearl, and S.Y. Tsai. 1992. *Master Environmental Plan for Fort Devens, Massachusetts.* April.

Colby, Herbert W. 1994. Letter to Mark Applebee, U.S. Army Corps of Engineers. December 2.

Ebasco Infrastructure. 1992. *Feasibility Study for Utility Realignment, Fort Devens, Massachusetts. Contract No. DACA51-91-0012.* Prepared for USACE, New York District. August, 31.

Environmental Technologies Associates, Inc. 1994. *Detailed Flow Model for Main and North Post, Fort Devens, Massachusetts.* September.

Fort Devens Environmental Management Office. 1995a. *Final UST Database.* February.

Fort Devens Environmental Management Office. 1995b. *Site Status Archive.* July.

Giangiacomo, Mark. 1995. Fort Devens Department of Public Works. Telephone conversation with Heather Schaeffer, June 21.

IT Corporation. 1994. *Final Report. Study Area 50.* May. Prepared for USACE.

Kimball, Robert A. 1991. MADEP Division of Water Pollution Control. Wastewater Treatment Facility Inspection Report (Annual inspection) Joseph Pierce, Fort Devens EMO. March 27.

Maguire Group, Inc. 1995. *Operation and Maintenance Manual, Water Supply and Treatment Facilities, Fort Devens, Massachusetts.* June.

Makris, Steve. 1992. Telephone Conversation with Claudine Langlois, Director of Consumer Division, DPU and S. Makris of Ebasco. March 4.

Myette, Charles and Folan, Daniel. 1993. Letter from Wehran Engineering Corp. to Joanne Thomas of Environmental Soil Solutions, Inc. December 23.

OHM Remediation Services Corporation. 1994. *Draft Final Closure Report, AREE 66C, Fort Devens, Massachusetts.* October.

Orr, Robert. 1995. Personal communication between Fort Devens Department of Public works and Heather Schaeffer of Arthur D. Little. June 28.

Penta, Greg. 1995. Fort Devens Environmental Management Office. Telephone interview with Heather Schaeffer of Arthur D. Little. July 27.

RASco, Inc. 1995. *Operation and Maintenance Manual, Wastewater Treatment Plant, Fort Devens, Massachusetts.* March.

Roy F. Weston. 1992. *Enhanced Preliminary Assessment, Fort Devens, Massachusetts.* April.

U.S. Army Corps of Engineers, New England Division. 1994. *Draft Environmental Impact Statement, Fort Devens, Massachusetts, Disposal and Reuse.* September.

U.S. Army Corps of Engineers, New England Division. 1995a. *Issues Statement, Debris Disposal Management, Fort Devens, Massachusetts.* March.

U.S. Army Corps of Engineers, St. Louis District. 1995b. *Ordnance, Ammunition, and Explosives Archives Search Report Findings, Fort Devens, Ayer, Massachusetts.* May.

U.S. Army Environmental Center. 1993. *No Further Action Under CERCLA, Study Area 24 (Bunker 187), Fort Devens, Massachusetts.* January.

12.0 Selected Map and Photograph References

U.S. Army Corps of Engineers. 1954a. *Basic Information - Master Planning Detail Site and Building Use Map. Fort Devens, Ayer, Massachusetts.* Prepared by Office of Post Engineer, Fort Devens.

U.S. Army Corps of Engineers. 1954b. *General Layout Plan for Air Pollution, Fort Devens, Massachusetts.* Prepared by Office of Post Engineer, Fort Devens.

U.S. Army Corps of Engineers. 1986. *General Site Map. Fort Devens, Massachusetts.* Scale 400:1.

War Department. 1919. *General Map, Camp Devens, Massachusetts.* Prepared by Construction Division, M & R Branch.

War Department. 1920. *Property Map, Camp Devens, Massachusetts.* Prepared by Construction Division. Scale 800:1.

War Department. 1941. *General Layout Plan, Fort Devens, Massachusetts.* Prepared by Construction Division. Scale 400:1.

Finding of Suitability to Transfer (FOST)

Fort Devens
(Electric, Gas, Potable Water, and Sanitary Sewer Distribution Systems)

Fort Devens, Massachusetts

December 1995

1.0 Purpose and Finding

a. The purpose of this FOST is to document a decision made pursuant to Department of Defense (DoD) FOST guidance that property is suitable to transfer.

b. Based on results detailed in the Environmental Baseline Survey (EBS), I have determined that the gas, potable water, and sanitary sewer systems are suitable for transfer to the Massachusetts Government Land Bank. The electrical system will be suitable for transfer after removal actions are performed at Area Requiring Environmental Evaluation (AREE) 66A, AREE 66B, and AREE 66G and at the Sheboken Well.

2.0 Property Description

The structures associated with the transfer systems occupy approximately 50 acres of land distributed throughout Fort Devens, with the waste water treatment plant (WWTP) accounting for the majority of the acreage. Each transfer system is described below:

- **Electrical:** Fort Devens purchases electricity wholesale from the New England Power Company. Power is distributed throughout the Main and North Posts by three substations, 60 miles of overhead lines, 2.7 miles of underground lines, and approximately 900 transformers.

- **Gas:** Fort Devens purchases firm (non-interruptable) natural gas service on the retail market from the Boston Gas Company. Two gas mains distribute service at Fort Devens via 17.9 miles of government-owned underground lines and 11.9 miles of BGC-owned underground lines. The building that houses the gas master meter and gas regulator is owned by the Boston Gas Company and is located at the intersection of Patton Road and Barnum Road.

Fort Devens
(Electric, Gas, Potable Water, and Sanitary Sewer Distribution Systems)

- **Potable Water:** Fort Devens obtains potable water from four ground water wells on the Main and North Posts. Water is stored in 2 aboveground steel storage tanks with a capacity of 1 million gallons each. Water is distributed throughout the Main and North Posts in 54.6 miles of underground distribution lines, ranging in size from 4 to 10 inches in diameter.

- **Sanitary Sewer:** Fort Devens uses a gravity-flow sewage collection system to channel waste to a WWTP located in North Post. The collection system consists of 65 miles of piping, 5 aboveground sewage lift stations, and 3 underground sewage lift stations. The WWTP includes 3 Imhoff tanks, 22 sand infiltration beds, and 4 sludge drying beds.

3.0 Environmental Condition of Property

An analysis of the environmental condition of the site proposed for transfer has been made by the United States Army Environmental Center in the form of an EBS for the electric, gas, potable water, and sanitary sewer distribution systems. The EBS was conducted in accordance with the requirements of the DoD FOST guidance for conducting an EBS.

Three properties within the electrical distribution system were identified as properties of potential environmental concern: AREE 66A, Transformer at Building 3752; AREE 66B, Building 1634; and AREE 66G, the West Main Street Substation. At each AREE, site investigations detected polychlorinated biphenyls (PCBs) concentrations in soil above the Massachusetts Department of Environmental Protection's Massachusetts Contingency Plan limit of 2.0 µg/g for category S-1 soil. Excavation of soil in the area of contamination is recommended in these three areas.

Asbestos surveys were conducted at the potable water well houses and the sewage lift stations. Asbestos-containing pipe installation was detected at Grove Pond Well and MacPhearson Well. Roofing sealant was assumed to contain asbestos at Sheboken Well, Patton Well, and MacPhearson Well. Vinyl floor tile and associated mastic was assumed to contain asbestos at the Patton Well. Roofing sealant at sewage lift stations in Buildings 1427, 3812, and 3815 were also assumed to contain asbestos. No other asbestos-containing material was detected at any of the lift stations.

Petroleum products were determined to be present or to have been stored or released within the potable water distribution system parcels. The sanitary sewer distribution system parcels have not had petroleum releases but have stored petroleum products.

Fort Devens
(Electric, Gas, Potable Water, and Sanitary Sewer Distribution Systems)

The Grove Pond Well and the Sheboken Well each contain a 1,000-gallon, No. 2 fuel oil underground storage tank (UST). There was a release of petroleum from the UST at the Sheboken Well. The UST has been removed from this parcel. The UST at Grove Pond Well is managed by the Fort Devens Environmental Management Office (EMO). Two USTs were associated with the sewage lift stations at Buildings 1427 and 3812, and were removed in 1992. No contamination was associated with the tank removals.

Based upon the EBS and the references cited therein, the proposed gas and sanitary sewer systems are suitable for transfer. A hazardous substance notice will be given for the 1,000-gallon, No. 2 fuel oil USTs at Grove Pond Well and for the potential presence of asbestos at the potable water well houses and the sewage lift stations. The potable water system will be suitable for transfer after completion of the removal action at Sheboken Well. The electrical system will be suitable for transfer after PCB-contaminated soil is removed from AREE 66A, Building 3752; AREE 66B, Building 1634; and AREE 66G, the West Main Street Substation. A hazardous substance notice is needed for the presence of PCBs.

Although eight response actions are occurring at properties adjacent to the proposed transfer systems, the response actions will not impact the proposed transfer systems. Two response actions are ongoing adjacent to electrical distribution system. They include Study Area (SA) 13, Lake George Street Landfill, southeast of the Lake George Street Substation and Area of Contamination 63AX, a UST at Building 2517, northwest of Patton Road Substation. Response actions are ongoing adjacent to the potable water distribution system at: AOC 40, Cold Spring Brook Landfill, east of the Patton Well and SA 56, a removed leaking UST adjacent to Building 2417. Finally, four response actions are ongoing adjacent to the sanitary sewer system: AOC 9, the North Post Landfill southwest of the WWTP; AOC 69W, a fuel spill at the Fort Devens Elementary School; AREE 69AE, a jet fuel spill at Building 3809; and AOC 50, Moore Army Airfield where a soil vapor extraction system was installed to remediate tetrachloroethylene-contaminated soil and ground water.

3.1 Regulatory Comment

Regulatory agencies were notified at the initiation of the EBS and FOST. Regulatory comments received during the development of these documents were reviewed and incorporated.

Fort Devens
(Electric, Gas, Potable Water, and Sanitary Sewer Distribution Systems)

3.2 Transfer Provisions

a. Hazardous substance or petroleum product notices, as provided in Section 3.0, will be given.

b. Provisions will be included in the transfer to ensure that the requirements of Section IV (E) and (G) of the DoD FOST policy are met.

c. A notice will also be given for the potential presence of asbestos at the potable water well houses and the sewage lift stations.

d. The Army shall have access to the property in any case in which a response action or corrective action is found to be necessary after the date of property transfer, or such access is necessary to carry out a response action or corrective action on adjacent property.

e. When the property is transferred, it will be transferred in accordance with Section 37 of the Fort Devens Federal Facility Agreement.

4.0 Conclusion

Based on the above information, I conclude that the DoD requirements to reach a FOST have been met for the gas, and sanitary sewer distribution systems, and will be met subsequent to removal actions at the potable water and electrical distribution systems. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 120 (h) (1) notice requirements and the transfer requirements as discussed above must be given with the transfer.

Arthur T. Dean
Major General, USA
Deputy Chief of Staff for Personnel
and Installation Management

Comment and Response Package

U.S. Environmental Protection Agency (USEPA) New England Division Comments on the Draft Environmental Baseline Survey, Proposed Transfer of Utilities

Submitted to Fort Devens Base Realignment and Closure Division, Environmental Management Office

Prepared for:

U.S. ARMY ENVIRONMENTAL CENTER
ABERDEEN PROVING GROUND, MARYLAND 21010

Requests for this document must be referred to:
Commander, U.S. Army Environmental Center
Aberdeen Proving Ground, Maryland 21010

February 1996

Response to USEPA New England Division Comments
Draft Environmental Baseline Survey, Proposed Transfer of Utilities

General Comments

Comment

1. The overall consistency and organization of this report is poor. The numerous mistakes and inconsistencies in the property and environmental descriptions make the document nearly impossible to review in a thorough manner. These deficiencies must be corrected before EPA New England can concur with this transfer.

Response

1. The document has been prepared and organized consistent with past EBSs following DoD guidance. Any inconsistencies have been corrected, as necessary.

Comment

2. There needs to be a more complete description of what's being transferred. Page 2 of the FOST guidance requires EBSs to encompass any property to be transferred. Therefore, we need a description and evaluation of the distribution systems for these utilities, including the underground water, sewer, and gas distribution system. Without the distribution systems, this would be only a partial transfer. Evaluation of the distribution systems is a necessary part of the EBS. Please provide maps of these distribution systems, and check easements as part of the title search.

Response

2. A detailed description of the distribution system associated with the utilities being transferred is not necessary. This EBS addresses the main parcels and pieces of utility equipment that would be transferred. All distribution systems are included by reference. Performing reviews of the easements for the distribution systems is unnecessary since all land at Fort Devens will be managed by the Massachusetts Land Bank.

Comment

3. Please include a general statement in final or revised version of the document concerning whose responsibility it will be to mitigate and/or manage environmental concerns such as asbestos, PCB containing transformers and residual contamination, and USTs.

Response

3. It will be the responsibility of either the Army or the Massachusetts Land Bank to manage asbestos, PCBs, USTs and any residual contamination. The Land Bank will have authority for managing the utilities on base after Fort Devens closes. The Army will maintain responsibility for addressing any residual contamination on base.

Comment

4. The amended Section 37 of the Fort Devens Federal Facility Agreement (FFA) will need to be incorporated into all final leases and transfer documents to ensure that the Army will have access to these parcels in the event that future investigations and/or remedial actions are required under CERCLA.

Response

4. The FOST has been edited to reference Section 37 of the Federal Facility Agreement (FFA).

Specific Comments

Comment

5. **Page vi, paragraph 3:** Were the buildings inspected for lead-based paint (LBP)? Please include.

Response

5. Buildings included in the utilities transfer EBS were not inspected for lead based paint. There is no regulatory requirement to inspect utility structures for lead based paint since no children under six years of age live in these structures.

Comment

6. **Page vii, paragraph 1:** Change AREE 63AX to AOC 63AX. Please correct throughout the text.

Response

6. AREE 63AX has been edited to AOC 63AX throughout the text. The site had not been designated an AOC at the time of document preparation.

Comment

7. **Page vii, paragraph 1:** Please include a discussion of the underground spill at the Sheboken Well. This should also be included in the FOST and all applicable sections of this EBS.

Response

7. A discussion regarding the fuel oil release at Sheboken Well is included in the Executive Summary, the FOST, and in applicable sections of the EBS.

Comment

8. **Page vii, paragraph 1:** AOC 69W was not identified as being adjacent to sewage lift station 1006. Please correct.

Response

8. AOC 69W has been included as an adjacent property to sewage lift station 1006.

Comment

9. **Pages 1-2, 1-3, and 1-4:** Sheet #1 - add SA 61AG and 61Y; Sheet #2 - add AOC 69W and AOC 52; Sheet #3 - add SA 16, change AREE 63AX to AOC 63AX, SA 40 to AOC 40.

Response

9. The drawings will be edited as necessary. These drawings only show those AREEs, SAs, and AOCs that are considered on a utility parcel or adjacent to the parcel. AOC 52 is not considered adjacent to the Grove Pond Well and SA 16 is not considered adjacent to the Patton Well. These sites were not added to the drawings.

Comment

10. **Page 3-1, paragraph 2:** This Zone II delineation has not been approved.

Response

10. Comment noted. In absence of a final Zone II determination, the MADEP definition was used.

Comment

11. **Page 6-1, paragraph 4:** Please include the results from AREE 66G investigation.

Response

11. The purpose of Section 6.0 is to provide a description of the activities taking place on the land parcel. Furthermore, any removal actions and discussion of sample results are provided in Section 7.0. Sample results regarding AREE 66 G are included in Section 7.1.1.1.

Comment

12. **Page 6-1, paragraph 6:** Please include a discussion of the AREE 66E investigation.

Response

12. The purpose of Section 6.0 is to provide a description of the activities taking place on the land parcel. Furthermore, any removal actions and discussion of sample results is provided in Section 7.0. The sample results regarding AREE 66E are included in Section 7.1.1.1.

Comment

13. **Page 6-2, paragraph 6:** Please provide a discussion of the removal taken place at 66C.

Response

13. The purpose of Section 6.0 is to provide a description of the activities taking place on the land parcel. Furthermore, any removal actions and discussion of sample results is provided in Section 7.0. The sample results regarding AREE 66C are included in Section 7.1.1.2.

Comment

14. **Page 6-9, Section 6.2.3.1:** Please discuss the results of the removal action at Mirror Lake.

Response

14. The removal actions and supplemental investigations at SA 17 are discussed in Section 7.2.3.1.

Comment

15. **Page 6-9, Section 6.2.3.3:** AOC 52 appears to be in the area of Grove Pond Well. Please correct throughout the report.

Response

15. AOC 52 is not considered adjacent to the Grove Pond Well and is not within the Zone II of Grove Pond Well.

Comment

16. **Page 6-11, Section 6.2.4.2.2:** Please change Building 622 Lift Station to Building 600. See Section 7.2.4.2.2 also.

Response

16. The sewage lift station is in an building that has not been numbered. The lift station is adjacent to Building 622; therefore, for location purposes it is referred to as the "Building 622 Lift Station." Building 600 is a temporary structure in what will become the Reserve Enclave.

Comment

17. **Page 7-1, Section 7-1:** The title should read as Proposed Transfer Parcel.

Response

17. The section title has been edited accordingly.

Comment

18. **Page 7-2, Section 7.1.1.2:** "excavation was recommended" Was it performed? Does this make it an AOC? If there are any AOCs on the property to be transferred, the transfer cannot be made under the present FFA.

Response

18. AREE 66A, and 66B, were referred to the New England Division of the Army Corps of Engineers for removal action. These sites are not considered AOCs. The Army Corps will issue removal reports for NFA decisions after the removal actions are complete.

Comment

19. **Page 7-3, paragraph 2:** The Sheboken Well UST did have a spill. Please correct.

Response

19. This section has been edited accordingly to include the response to the spill from the UST at Sheboken Well.

Comment

20. **Page 7-8, Section 7.2.3:** Adjacent properties to distribution lines should be reviewed.

Response

20. A detailed description of the distribution system associated with the utilities being transferred is not necessary. This EBS addresses the main parcels and pieces of utility equipment that would be transferred. All distribution systems are included by reference. Performing reviews of adjacent parcels along distribution lines is unnecessary since all land at Fort Devens will be managed by the Massachusetts Land Bank.

Comment

21. **Page 9-1, paragraph 5: a.** Cold Spring Brook Landfill is being considered for removal under the landfill consolidation plan. Please revise. **b.** In the final or revised document, it would be helpful to update the status of these sites.

Response

21. a. The text has been edited accordingly.

b. The final EBS reflects the status of all sites based upon the latest available information.

Comment

22. **Page 10-1, paragraph 1:** Sheboken Well should be classified as suitable to transfer after removal action is complete.

Response

22. The text has been edited accordingly.

FOST Comments

Comment

23. Sheboken Well is not suitable for transfer until the removal action is complete. Please revise the text accordingly. Will this well become an AOC in the near future? If it does, the property will not be able to be transferred until the amended FFA is finalized.

Response

23. An Immediate Response Action (IRP) Report has been issued for the cleanup of the spill at Sheboken Well. The FOST has been edited to include reference to the release and the current status of the Response Action.

Comment

24. **Page 2, Section 3.0:** Please discuss the environmental condition of each utility separately as it was done in the property description.

Response

24. The section has been organized around the environmental concerns associated with each parcel. The section has been reorganized, as appropriate, to highlight parcels and the environmental condition of property.

Comment

25. **Page 3, Section 3.2:** A hazardous substance notice should also include the potential of UXO.

Response

25. The UXO survey occurred in fall 1995 and no UXO was found in the utilities transfer parcel. The area was, therefore, approved for NFA.

Comment

26. As mentioned above, please reference Section 37 of the FFA when the amendments to the FFA become final.

Response

26. Section 37 of the FFA has been mentioned in the Transfer Provisions.

FINAL

ENVIRONMENTAL BASELINE SURVEY: PROPOSED PERMIT OF BUILDING 1401 AND SURROUNDING PROPERTY FORT DEVENS, MASSACHUSETTS

Prepared for:
U.S. Army Environmental Center
ATTN: SFIM-AEC-BCD (Charlie George)
Building 4480
Aberdeen Proving Ground, Maryland 21010-5401

Prepared by:
Horne Engineering Services, Inc.
4501 Ford Avenue, Suite 1100
Alexandria, Virginia 22302
103194/0101/1401a
DAAA15-94-D-0012

March 7, 1995

"The work contained in this document was conducted under Contract No. DAAA15-94-D-0012 for the U.S. Army Environmental Center (AEC). The publication of this document does not indicate endorsement by the AEC, nor should the contents be construed as reflecting the official AEC position."

"Printed on Recycled Paper"

TABLE OF CONTENTS

EXECUTIVE SUMMARY ES-1

1.0 INTRODUCTION 1

2.0 SITE DESCRIPTION 1
- a. Proposed Permit Parcel 1
- b. Adjacent Properties 4

3.0 SURVEY METHODOLOGY 5
- a. Review of the CERFA Report 5
- b. Records Search - Proposed Permit Parcel 5
- c. Records Search - Adjacent Properties 5
- d. Aerial Photograph Review 5
- e. Interviews 5
- f. Visual Inspection 5
- g. Identification of Sources of Contamination on Adjacent Property 5
- h. Physical Inspections - Adjacent Properties 5

4.0 RELEVANT INFORMATION GAINED DURING RECORDS SEARCH ... 7

5.0 TITLE SEARCH 7

6.0 DESCRIPTION OF ACTIVITIES 7
- a. Proposed Permit Parcel 7
- b. Adjacent Properties 7

7.0 HAZARDOUS SUBSTANCES AND PETROLEUM PRODUCTS MANAGEMENT PRACTICES AND POTENTIAL IMPACTS 7
- a. Proposed Permit Parcel 7
- b. Asbestos Containing Material 9
- c. Lead-Based Paint 9
- d. Radon 9
- e. PCBs 10
- f. Adjacent Properties 10

8.0 RELEVANT INFORMATION FROM RECORDS REVIEW, INTERVIEWS, AND AERIAL PHOTOGRAPH REVIEW 10

9.0 ONGOING OR COMPLETED RESPONSE ACTIONS 10
- a. Proposed Permit Parcel 10
- b. Adjacent Properties 11

10.0 RECOMMENDATIONS AS TO SUITABILITY TO PERMIT 12

11.0 REFERENCES 13

LIST OF FIGURES

Figure 1 Location of the proposed permit parcel within Fort Devens 2

Figure 2 Location of the floor drains, sand and "gas" trap and sanitary sewer connections. 3

Figure 3 Location of the UST and monitoring wells in relation to the northeast corner of Building 1401. 6

LIST OF APPENDICES

A Responsiveness Summary

LIST OF ACRONYMS

AREE	Area Requiring Environmental Evaluation
AST	Aboveground storage tank
BRAC	Base Realignment and Closure
CERFA	Community Environmental Response Facilitation Act
DoD	Department of Defense
EBS	Environmental Baseline Survey
NPDES	National Pollutant Discharge Elimination System
PCB	Polychlorinated Biphenyl
pCi/L	picoCuries per liter
ppm	parts per million
TPH	Total Petroleum Hydrocarbon
UST	Underground Storage Tank

Final Environmental Baseline Survey:
Proposed Permit of Building 1401 and
Surrounding Property
Fort Devens, Massachusetts

Executive Summary

An Environmental Baseline Survey (EBS) was undertaken to make a determination of the suitability to permit Building 1401 at Fort Devens, Massachusetts. The proposed permit area has not been specified, as there is no current intended reuse for the building or its surrounding area.

The EBS followed the protocols outlined in current Department of Defense (DoD) Guidance. This included records review, review of aerial photographs, and physical inspection of the proposed permit parcel and adjacent areas. Analytical data from previous studies conducted within the parcel were reviewed. This EBS is a supplement to the Final Community Environmental Response Facilitation Act (CERFA) Report for the Fort Devens Facility, Fort Devens, Massachusetts, April 1994.

Building 1401 and the surrounding structures (Buildings 1402, 1403, and 1404) were inspected on September 8, 1994. This report presents the results of the site inspection and document review.

The only known environmental conditions of potential concern identified within the area under review are a remediated petroleum release, one 6,000-gallon UST, three abandoned but not closed monitoring wells, a former battery shop, asbestos, and lead paint (potential). Hazardous materials and petroleum products have been stored and petroleum products have been released and remediated on the proposed permit parcel.

The parcel containing Building 1401 is within a CERFA disqualified parcel. Disqualification of the 105 acre parcel (Parcel No. 126) was for hazardous materials and petroleum release and storage.

Based upon the above factors, the area under review is recommended as classifiable as suitable for permit with notices. In accordance with DoD guidance, hazardous substance notice should be given because petroleum products have been stored for one year or more and are known to have been released, treated, or disposed on the proposed permit parcel. Furthermore, there is a potential that storage and release of petroleum products on adjacent properties may impact the proposed permit parcel. Notice should be given of the 6,000-gallon UST, monitoring wells, former battery shop, five inactive wash racks, asbestos, and lead paint (potential).

1.0 Introduction: This Environmental Baseline Survey (EBS) is being undertaken in accordance with the current Department of Defense (DoD) guidance in order to determine the suitability to permit Building 1401 and surrounding property. This EBS is a supplement to the Final Community Environmental Response Facilitation Act (CERFA) Report for the Fort Devens Facility, Fort Devens, Massachusetts, April 1994.

The proposed permit area has not been specified, as the intended reuse of the property has not been established.

2.0 Site Description

a. Proposed Permit Parcel: Fort Devens is located in the Commonwealth of Massachusetts approximately 35 miles northwest of the city of Boston. Fort Devens is located within the towns of Ayer and Shirley (Middlesex County) and Harvard and Lancaster (Worcester County), and occupies approximately 9,280 acres of land area.

Building 1401 (Figure 1) is a two story (no basement) block structure on Saratoga Street adjacent to the Boston and Maine Railroad tracks which run north-south along the eastern edge of the Main Reservation. Building 1401 was constructed in 1965. The building has 19,542 (17,760 according to the BRAC EE AREE 61 11/93 Report) square feet of floor space and is currently vacant.

The first floor contains a large central bay, a 250-gallon waste oil aboveground storage tank (AST), a former hazardous waste satellite accumulation area, a boiler room, and several former specialty shops (e.g., battery, paint). The central bay (first floor) has 9 service bays and is accessed via six large vehicle doors. The central bay has vehicle exhaust vents installed in the floor as well as a central trench drain which runs the length of the bay.

There are six floor drains in Building 1401 including one in the former battery shop and those in the boiler room. The central bay trench drain and the boiler floor drain are connected to a sand and "gas" trap which discharges to the installations sanitary sewer system (Ref. Dwg. 35-10-01). The trap is underground, adjacent the northern exterior building wall. The battery shop floor drain discharges directly to the sanitary sewer. Figure 2 shows the location of the floor drains, sand and "gas" trap, and sanitary sewer connection.

Building 1401 contained nine hydraulic lifts, which have been filled with concrete. Army personnel stated that the lifts were filled during the late 1980s (BRAC EE Draft Maintenance and Waste Accumulation Areas Report 11/93).

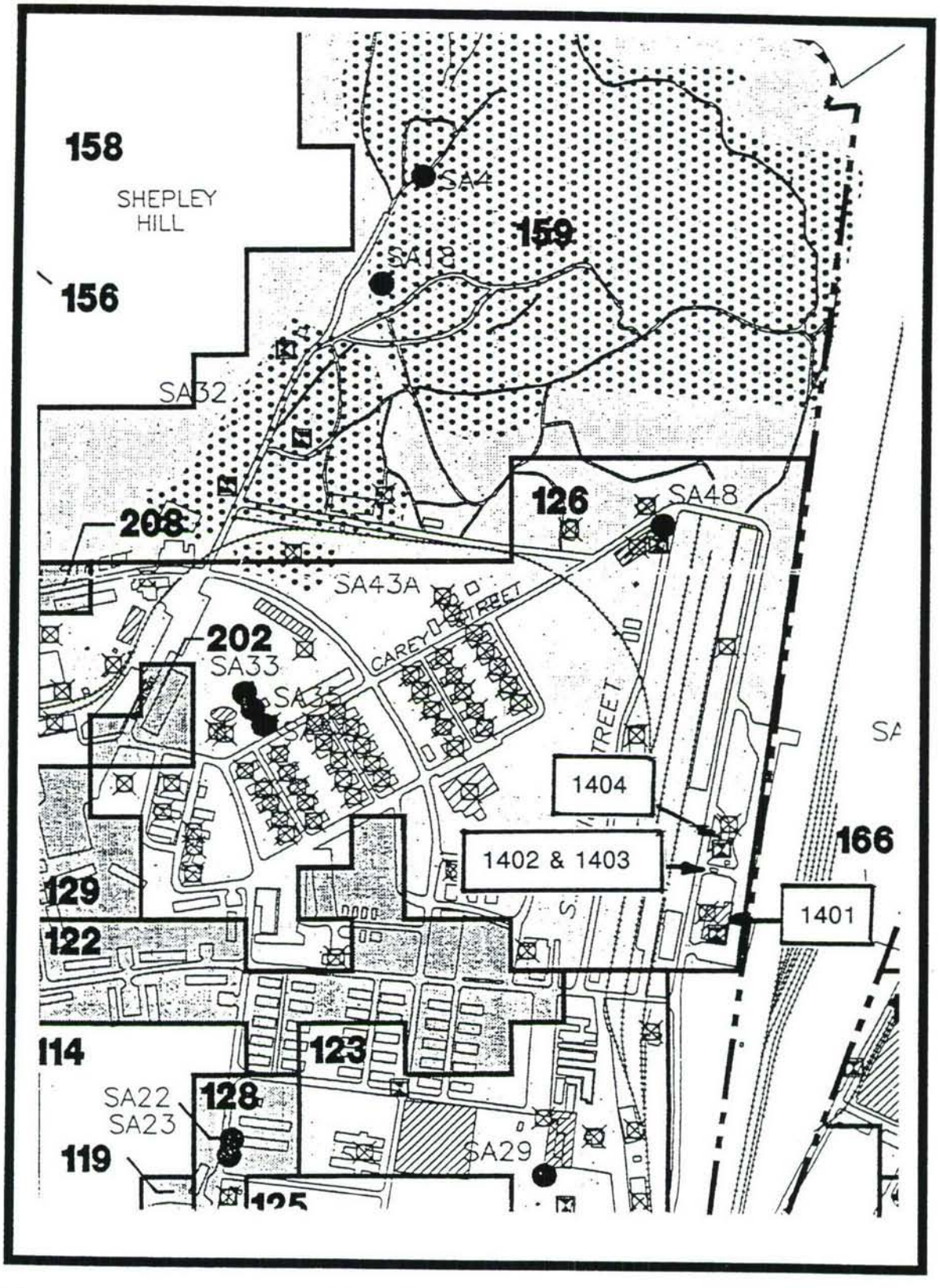


Figure 1 - Location of proposed permit parcel within Fort Devens.

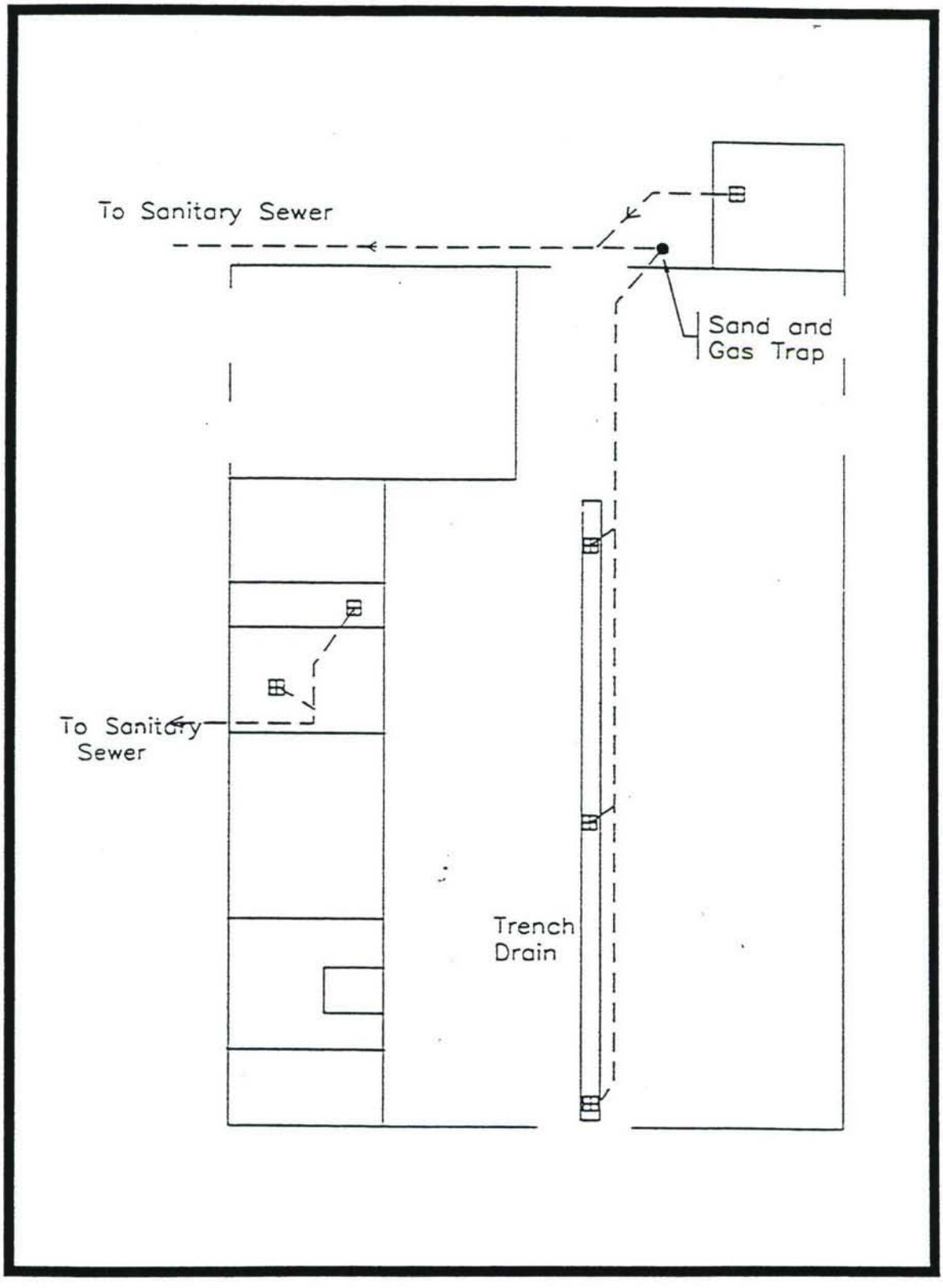


Figure 2 - Location of floor drains, sand and "gas" trap, and sanitary sewer connections.

Outside and adjacent to Building 1401 are one 6,000-gallon heating oil underground storage tank (UST), three groundwater monitoring wells, and three exterior hazardous substance flammable materials/waste storage sheds. Figure 3 shows the UST and monitoring well locations. Unless properly closed, these wells could act as conduits for contamination of the groundwater.

Building 1401 is part of CERFA Parcel No. 126D-A/L(P)-PR/PS/HR.

b. Adjacent Properties: Building 1401 is surrounded by industrial properties and undeveloped land. To the immediate north are Buildings 1402, 1403, and 1404 and a large paved asphalt yard. The yard is fenced and is accessed via a gate adjacent to Building 1401. Buildings 1402 and 1403 are single story block structures.

Adjacent to Building 1403 is a concrete island containing two vacuum pumps and a storm drain. The asphalt surrounding the storm drain is sloped so that water can drain into the storm sewer.

Building 1404 is an single story block shed which shelters the service station attendant. There are three 10,000-gallon USTs (DOL-001, DOL-002, and DOL-003): two diesel and one MOGAS. Fuel is dispensed from three pump islands which are surrounded by a containment berm (< 3 inches in height) which conveys spills and surface runoff to a series of trench drains. The drains lead to an asphalt lined containment pond north of the building. This pond discharges through an oil/water separator to the storm sewer. According to the Fort Devens BRAC Environmental Office, the area around Building 1404 has two ground water monitoring wells associated with underground storage tank removals.

Building 1404 has no floor drains (Phase 1 Floor Drain Study 2/94).

North and east of Building 1401 is an asphalt paved parking and open area. The entire area, as well as Building 1401, 1402, and 1403 are fenced. The railroad leased 35 feet along the original eastern property line in or around 1993, at which time the fence was moved west. In 1992 or 1993, the grease rack which was located in the leased area was removed by Fort Devens personnel. According to the Fort Devens BRAC Environmental Office, soil samples were collected in the area of the former grease rack and some contaminated soil was removed and disposed of. There is no documentation concerning this sampling event and soil removal action. Along the northern edge of the enclosure are five vehicle wash racks. Each rack has a drain from which washwaters flow to one of two oil/water separators prior to discharge to the storm sewer. The storm sewer discharges north of the enclosure in a grassy area.

Land use near Building 1401 and the enclosure includes a rail yard to the east. According to the Fort Devens BRAC Environmental Office, the rail yard has been in operation since at least 1918, and the railroad has been in operation since at least 1860.

3.0 Survey Methodology: This EBS is a supplement to the Final CERFA Report for the Fort Devens Facility, Fort Devens, Massachusetts, April 1994. This EBS was conducted in accordance with DoD guidance.

a. Review of the CERFA Report: The CERFA Report was finalized in April 1994. This report was reviewed to establish existing site conditions at that time. Supplemental activities have occurred, which are discussed in the EBS and may modify the conclusions drawn in the CERFA Report.

b. Records Search - Proposed Permit Parcel: A detailed records review was conducted as part of the CERFA Report (refer to Section 2.0 - Scope of Investigation). Records reviewed by Horne Engineering are listed in Section 11.0 - References.

c. Records Search - Adjacent Properties: A detailed records review was conducted as part of the CERFA Report (refer to Section 2.0 - Scope of Investigation). Records reviewed by Horne Engineering are listed in Section 11.0 - References.

d. Aerial Photograph Review: An aerial photograph review was conducted as part of the Installation Assessment for Fort Devens by the Environmental Systems Laboratory for the U.S. Army Environmental Center during September 1991. This aerial photograph assessment was reviewed as part of the records review in the CERFA Report (refer to Section 2.0 - Scope of Investigation).

e. Interviews: Interviews were conducted as part of the records review in the CERFA Report (refer to Section 2.0 - Scope of Investigation). As the proposed permit parcel was unoccupied, Horne Engineering interviewed representatives of the Department of Public Works and the BRAC office.

f. Visual Inspections: Visual inspection of the proposed lease parcel was conducted during the CERFA report preparation and in September 1994 by representatives of Horne Engineering.

g. Identification of Sources of Contamination on Adjacent Properties: Potential sources of contamination on adjacent property and their potential impacts were identified during the various studies and in the CERFA report.

h. Physical Inspections - Adjacent Properties: Physical inspections of the areas adjacent to the proposed lease parcel were conducted during the CERFA report preparation and in September 1994 by representatives of Horne Engineering.

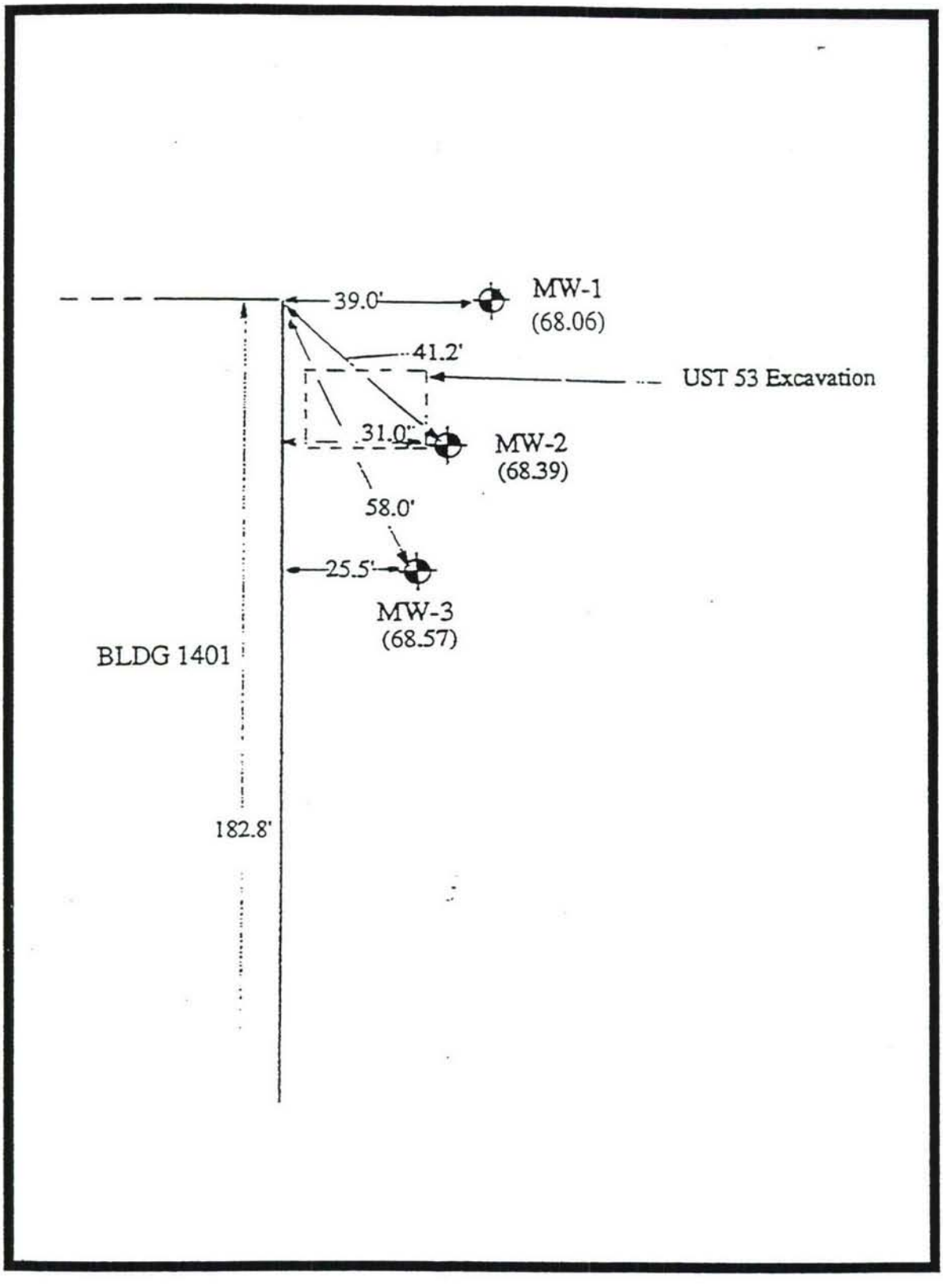


Figure 3 - Location of the UST and monitoring wells in relation to the northeast corner of Building 1401.

4.0 Relevant Information Gained During Records Search: A detailed records review was conducted as part of the CERFA Report (refer to Section 2.0 - Scope of Investigation). A similar review of documents (see 11.0 References) was undertaken by Horne Engineering. Those significant issues noted during the records review and not addressed in sufficient detail in the CERFA Report are:

A former grease rack was investigated, but not documented.

5.0 Title Search: A title search was conducted as part of the CERFA Report (refer to Section 2.5 - Title Documents). Previous ownership and dates of transfer to the Army are indicated on Figure 5.2-1 of the CERFA report. Section 3.1 of the referenced document states:

> "In 1917 approximately 11,000 acres of predominantly undeveloped or agricultural land was leased from the town of Ayer to establish Camp Devens. Approximately 4,900 acres of land were purchased between 1919 and 1923. The total land area increased to 10,163 acres by 1941."

According to the Fort Devens BRAC Environmental Office, the 1401 property was once part of the railroad yard. In 1993, a section of the property was leased to the railroad. The fence along the eastern border of the 1401 property was moved 35 feet to the west, as a result of the lease.

6.0 Description of Activities:

a. Proposed Permit Parcel: The proposed reuse of Building 1401 and surrounding land has not been established. Building 1401 and the surrounding structures (Buildings 1402 and 1403) and land are vacant and not currently being used. Until recently it has been used by the 104th Transportation Company as a motorpool. The second story was used for offices.

b. Adjacent Properties: Building 1402 and 1403 are vacant and not currently in use. Building 1402 was previously used as a dispatch office, while Building 1403 was once used as an oil house (BRAC EE AREE 61 11/93). Building 1404 is an active gasoline station. Spills, USTs, and remedial actions associated with Building 1404 are listed in Section 9.0, b.

Historical land uses in the area includes two railroad warehouses, which were demolished in the 1960s when buildings 1401, 1402, 1403, and 1404 were constructed.

7.0 Hazardous Substances and Petroleum Products Management Practices and Potential Impacts:

a. Proposed Permit Parcel: Hazardous substances and petroleum products have been stored on-site. However, the exact hazardous materials and petroleum products management practices at Building 1401 are not known. The shop equipment, materials, and supplies have been removed and the facility cleaned and refurbished. Site contacts and site documentation which would have described historic practices were not available.

On April 15, 1992, one 1,000-gallon waste oil UST (UST No. 1401-U-11 also known as No. 0053) was excavated and removed from the site. The UST was located near the northwest corner of the building. An elevated soil total petroleum hydrocarbon (TPH) concentration (6,180 ppm) detected on the sidewall of the initial UST excavation prompted additional remediation and investigations. Approximately 146 cubic yards of soil were excavated on August 19, 1992. Three groundwater monitoring wells were installed and sampled in 1992. The wells have subsequently been abandoned but not closed. Post remediation soil and groundwater samples were collected. All samples were non-detect for TPH (Technical Report UST Closure UST No. 0053, Bldg. 1401 11/93) (BRAC EE AREE 61 4/93). Figure 3 shows the location of the UST and monitoring wells in relation to the northeast corner of Building 1401. The available documentation indicates that this UST has been closed in compliance (CERFA Report 4/94). UST No. 1401-U-11 is listed under AREE 61E. The removal of this UST is not documented in the BRAC EE Previously Removed UST (AREE 63) Draft Report.

There is one 250-gallon, self-contained, skid-mounted, waste oil AST inside Building 1401 (CERFA Report 4/94). The AST appeared to be in good condition with no obvious signs of releases. The CERFA Report (4/94) indicates that two 250-gallon waste oil ASTs exist on-site. The second AST was not evident during the September 22, 1994, site inspection.

There are one 6,000-gallon heating UST, one 250-gallon waste oil AST, and three hazardous/flammable materials/waste storage sheds on-site. It is not known if the UST or AST still contain product. The age, construction, and tank test result/precision history of the UST are unknown. The competence/integrity of the UST is therefore unknown.

The hazardous/flammable substance storage sheds were inspected. Each shed has two compartments. Two of the compartments were empty while the remaining four were locked and unavailable for inspection. The history of use for these storage sheds is unknown.

Floor and wall stains suggest that several locations within the building were used for the storage of lubricants, oils, and probably antifreeze. The former satellite accumulation area was used for the collection of waste rags, grease, oil filters, brake pads, and Speedi-Dri. All wastes were stored in 55-gallon steel drums. There may also have been acid and paint storage areas, separate from the exterior storage sheds, in support of the specialty shops.

The former battery shop contains a sink and floor drain. The shop has been cleaned and all equipment removed. The concrete floor beneath the sink and around the floor drain was visibly pitted. New concrete around the floor drain indicates that some level of drain repair has occurred. However, it was not possible to determine the scope and extent of the repair efforts. Nor was it possible to determine the condition of the receiving sewer.

A paint shop existed within Building 1401. The shop has been cleaned and all equipment removed.

The central service bay contains a trench drain and the boiler room and battery shop contain floor drains. The central bay and boiler room drains are connected to a sand and "gas" trap which discharges to the sanitary sewer while the acid shop drain discharges directly to the sanitary sewer (Phase I Floor Drain Study 2/94). The central bay drain was clean with all residue removed. The condition of the lines leading from the drains to the sand and "gas" trap or the sewer system could not be determined. Nor could the sand and "gas" trap be inspected. Several soil samples collected from the soil surrounding the sand and "gas" trap contained low TPH levels (5 to 31 ppm) (BRAC EE AREE 61 Report 11/93). These TPH levels are below the 500 ppm TPH stipulated in the Massachusetts Contingency Plan requiring notification.

The storm sewer in the vicinity of Building 1401 discharge to a grassy area north of the fenced enclosure. Sediment and water quality samples have been collected but no results were available (Phase I Floor Drain Study 2/94). If the storm sewer receives discharges from active wash racks, the filing of a National Pollutant Discharge Elimination System (NPDES) permit application will be required.

Records indicate that southeast of Building 1401 near the railroad tracks there were two concrete grease racks. However, during the site inspection the grease racks were not evident. The records did not indicate when the racks were demolished (BRAC EE AREE 61 4/93). The railroad leased 35 feet along the original eastern property line in or around 1993. According to the Fort Devens BRAC Office, in 1992 or 1993, the grease rack which was located in the leased area was removed by Fort Devens personnel. Soil samples were collected in the area of the former grease rack and some contaminated soil was removed and disposed of. There is no documentation concerning this sampling event and soil removal action.

b. Asbestos Containing Material: Asbestos containing materials are known to exist in the Building 1401 boiler room (boiler insulation, magnesia/calciform, in 3 areas at 180 square feet/area), and assumed to exist in the fire door insulation of the offices and separated bay, throughout the building in the green vinyl floor tiles, and in the mastic tiles and in the roofing tar (Arthur D. Little Report 9/94).

c. Lead-Based Paint: No data on lead-based paint exist for the buildings under review. Due to the age of the buildings there is a possibility of lead based paint on the structures. The paint conditions on Building 1401 were good. Any proposed use of the facilities should prevent the highest risk population, children and adolescents, from coming in contact with the material.

The primary method of exposure to proposed parcel workers would be through activities to renovate or demolish existing buildings.

d. Radon: No data were available on the radon levels in Building 1401. The Radon Survey Report (AREE 67) July 1994, prepared by Arthur D. Little, identified Building 1401 as one of those requiring radon testing. If radon concentrations in adjacent structures is indicative of the concentrations to be found in Building 1401, then based on

the 1.3 and 1.0 pCi/L measured in Buildings 1402 and 1403, respectively, Building 1401 would not require radon mitigation.

e. Polychlorinated Biphenyls (PCBs): There are three transformers in the vicinity of Building 1401. There is one on pole No. 776 (Cavite Street) and two on pole No. 4864 (Saratoga Street). Tests conducted indicate that the PCB concentration of these transformers is 2 ppm. Therefore, there is not a risk of PCB contamination from these transformers.

f. Adjacent Properties: There are three buildings adjacent to Building 1401: 1402, 1403 and 1404. Buildings 1402 and 1403 are currently vacant and there are no hazardous substances or petroleum products stored on site. Historically, Building 1403 was used as an oil storage building.

Building 1404 is an operational gasoline station with three, active, 10,000-gallon USTs. Two tanks contain diesel fuel (DOL-001 and DOL-002) and one contains MOGAS (DOL-003) UST. Four USTs have been permanently excavated and closed in compliance at the site. No further action was recommended (CERFA Report 4/94). According the Fort Devens BRAC Environmental Office, this building has two ground water monitoring wells.

The wash racks are no longer in use and are not specified as an area requiring additional investigations or remediation. Army personnel stated that the wash racks have been inoperative since approximately 1990 (BRAC EE AREE 61 4/93). Shallow soil samples (0 to 1 foot) collected from the grassy area between the wash racks and the enclosure fence contained TPH levels of 11 to 407 ppm (BRAC EE AREE 61 11/93). These levels are below the 500 ppm TPH criteria mandating notification.

There are no floor drains in Building 1402, 1403, and 1404 (Phase 1 Floor Drain Study 2/94).

8.0 Relevant Information From Records Review, Interviews, and Aerial Photograph Review: A detailed records review and consideration of the aerial photograph review were conducted as part of the CERFA Report (refer to Section 2.0 - Scope of Investigation). No new areas of concern were identified either within the proposed lease parcel or in adjacent areas a result of the aerial review. Any new information obtained from the records review is contained in Section 4.0 of this report

9.0 Ongoing or Completed Response Actions: There are no ongoing response actions in the area under review. Completed response actions are listed below:

a. Proposed Permit Parcel:

AREE 61E There is one 6,000 gallon No. 4/5 heating oil UST and one sand and "gas" trap associated with Building 1401. In addition, there are five vehicle wash racks along the northern edge of the Building 1401 fenced enclosure. The wash racks drain into a grit chamber and then into an oil/water separator

which discharges to a storm sewer. The storm sewer discharges directly into the field north of the motor pool.

A 1,000-gallon used oil UST (No. 1401-U-11/ No. 0053) has been removed from the site. This UST has been permanently extracted and is in compliance.

Hazardous waste accumulation areas and satellite accumulation points were maintained at the motor pool.

The BRAC EE AREE 61 Report (11/93) recommended additional investigations due to the historic maintenance operations associated with the building. Sampling was recommended around the sand and "gas" trap as well as around the wash racks. A subsequent report (6/94) shows the results of a field sampling program in the specified areas. TPH levels ranged from 7 to 31 ppm from 4 to 10 feet surrounding the sand and "gas" trap, while the top 1 foot of soil surrounding the wash racks contained TPH levels of 11 to 407 ppm.

AREE 69O Approximately 250 gallons of asphalt were spilled on 11/4/88. Remediation occurred on 11/4/88. Asphalt entered a facility drain. Solvents were used to unplug the drain that feeds an oil/water separator. Asphalt is still likely to be contained in the drain system (Enhanced PAS 4/92). This AREE is included in AREE 61E.

b. Adjacent Properties:

AREE 61E Building 1404 is listed under AREE 61 for: three active USTs (AREE 61E); four removed USTs (AREEs 61 E, 63AW, and 63E); a 15-gallon diesel fuel spill in 6/88 and 6/88 cleanup (also listed under AREE 70); a 50-gallon diesel spill in 3/90, and a 10- to 15-gallon diesel spill in 1/92 (CERFA Report 4/94). No further action is indicated (CERFA Report 4/94).

AREE 63 AW
AREE 63E The only documented USTs removed in the vicinity of Building 1401 are the four UST permanently excavated and closed in compliance at Building 1404. These tanks are: 1404-D-27 a 10,000-gallon diesel (AREE 61E and AREE 63AW); 1404-D-24 a 10,000-gallon diesel UST (AREE 61E and AREE 63AW); 1404-G-25 a 10,000-gallon gasoline UST (AREE 61E and AREE 63AW); and 1404-D-26 a 5,000-gallon diesel UST (AREE 61E and AREE 63E) (CERFA Report 4/94).

The Building 1404 site is listed under AREE 63 also for a gasoline spill of unknown volume in 11/91. At least 50 cubic yards of soil were excavated from around the UST. The identity of the UST was not specified (CERFA Report 4/94).

AREE 69X On June 10, 1988, 15-gallons of diesel fuel were spilled during vehicle filling. The spill was washed into the storm drain system and Speedi-Dri spread on the spill area to adsorb residuals. The contaminated Speedi-Dri was containerized in a 55-gallon drum and transported to a Resource Conservation and Recovery Act permitted storage facility for ultimate disposal. There is no record that the storm drains were pumped or sampled (BRAC EE AREE 69 10/93).

AREE 69Z Gasoline contaminated soil was detected during the installation of vapor recovery equipment. The specifics of the vapor recovery system are unknown. Approximately 50 cubic yards of soil were excavated, stored on-site and sampled. The material was stored on and covered by plastic sheeting. The soil was disposed of by a contractor (BRAC EE AREE 69 10/93).

10.0 Recommendations as to Suitability to Permit: Based on the inspection and record review of the proposed permit parcel and adjacent areas, it is recommended that the parcel be classified as suitable for permit with notices. Applicable notices and issues of concern associated with the parcel are:

- one 6,000-gallon heating oil UST;
- three abandoned but not closed groundwater monitoring wells;
- a former battery shop floor drain;
- five inactive wash racks for which an NPDES permit has not been filed;
- asbestos; and
- lead paint (potential).

11.0 References

ABB Environmental Services, Inc., January 1994. *Scope of Services, Contaminated Soil Removal, Various Sites, Delivery Order 21.*

ABB Environmental Services, Inc., May 1993. *Final Site Investigation Report, Data Item A009, Fort Devens Site Investigation Groups 2 and 7 and Historic Gas Stations.*

Argonne National Laboratory, April 1992. *Final Master Environmental Plan for Fort Devens, Massachusetts.*

Arthur D. Little, Inc., April 1993. *Final Supplemental Work Plan, Main Post Site Investigation.*

Arthur D. Little, Inc., October 1993. *Draft Past Spill Sites Report (AREE 69) BRAC EE, Fort Devens, Massachusetts.*

Arthur D. Little, Inc., October 1993. *Draft Underground Storage Tanks (AREE 63), Memorandum Work Plan, Fort Devens, Massachusetts.*

Arthur D. Little, Inc., November 1993. *Draft Maintenance and Waste Accumulation Areas (AREE 61) Report, Fort Devens, Massachusetts.*

Arthur D. Little, Inc., November 1993. *Draft Previously Removed Underground Storage Tanks (AREE 63), BRAC EE.*

Arthur D. Little, Inc., November 1993. *Draft Transformer Study Report (AREE 66), Fort Devens, Massachusetts.*

Arthur D. Little, Inc., December 1993. *Site Investigation Report.*

Arthur D. Little, Inc., April 1994. *Community Environmental Response Facilitation Act (CERFA) Report, Fort Devens, Massachusetts.*

Arthur D. Little, Inc., May 1994. *AREE 62, UST Data.*

Arthur D. Little, Inc., June 1994. *Final Storm Sewer Evaluation (AREE 70) Report, BRAC EE, Volume I and II of II.*

Arthur D. Little, Inc., July 1994. *Draft Radon Survey (AREE 67), Base Realignment and Closure Environmental Evaluation, Part II, Fort Devens, Massachusetts.*

ATEC, November 1993. *Technical Report, Underground Storage Tank Closure, UST Number 0053, Building 1401.*

Chambers, James C., BRAC Environmental Coordinator, July 1994. *Environmental Restoration Superfund Update.*

Environmental Monitoring Systems, September 1991. *Installation Assessment Fort Devens(EPA) Volume I.*

HUB Testing Laboratories, April 1992. *Draft Fort Devens Asbestos Material Survey Analysis and Assessment.*

Kurz Associates, Inc., January 1991. *Underground Storage Tank Removal and Related Environmental Investigations, Fort Devens Military Reservations, Harvard, Massachusetts.*

Louis Berger and Associates, October 1993. *EA and FONSI.*

Personal communication, February 1995. Mr. Ron DeFilippo, Fort Devens BRAC Environmental Office (508-796-6171, ext. 306).

Roy F. Weston, Inc., April 1992. *Final Delivery Order 9, Enhanced Preliminary Assessment.*

Roy F. Weston, April 1994. *Enhanced Preliminary Assessment Fort Devens Massachusetts.*

S E A Consultants, February 1994. *Draft Report for the Phase I Non-Residential Floor Drain Evaluation Study.*

The Earth Technology Corporation, April 1994. *Final Base Realignment and Closure Plan.*

U.S. Army Environmental Center, July 1994. *Environmental Baseline Survey - Proposed Permit for the Cutler Army Hospital Building and Building 1677.*

APPENDIX A

RESPONSIVESNESS SUMMARY

FORT DEVENS BRAC ENVIRONMENTAL OFFICE COMMENTS ON THE DRAFT ENVIRONMENTAL BASELINE SURVEY: PROPOSED PERMIT OF BUILDING 1401 AND SURROUNDING PROPERTY, FORT DEVENS, MASSACHUSETTS

The Fort Devens BRAC Environmental Office comments were contained in a memorandum dated December 6, 1994, by James C. Chambers, BRAC Environmental Coordinator. Horne Engineering responses are listed in italics under each comment.

1. Figure 1. - Need a better vicinity map and site map. It is difficult to define the boundaries of the property being considered let alone the surrounding properties.

When the draft EBS was prepared the area being permitted was not defined. The figure was revised to more clearly show the buildings reviewed, but there is no current designated reuse for the 1401 complex.

2. Section 2.0a - Was building constructed in 1965 or prior to 1965? Real property records indicate 1965.

The EBS has been changed to read that the building was constructed in 1965.

3. Section 2.0b - Not all the adjacent properties have been addressed and according to the DOD guidance the lookback [sic] should extend at least 60 years. Our limited research shows that the 1401 property was once part of the railroad yard and part has subsequently been leased back to the railroad. We also know there were buildings across the street to the west and on the abutting land to the south.

The Title Search and aerial review were conducted during the preparation of the CERFA report and were used as a basis of the EBS review and formulation. This approach was listed in the Horne Engineering assumptions related to the project.

Concerning former buildings listed in the above comment, Section 6.0, b discusses the former warehouses which were demolished prior to the construction of the 1401 complex. Conversations were held with the Fort Devens BRAC Environmental Office concerning property leasing and the EBS was revised to reflect those comments.

4. The 1400 area structures are not brick, but block. The railyard has been in operation since at least 1918 and the railroad has been in operation at least since 1860.

The EBS has been changed to reflect these comments.

5. Section 3.0 - The CERFA report is not site-specific enough to comprise a primary document for an EBS.

The CERFA report is a compilation/summary of very specific evaluations of the existing structures. Those studies used in the development of the CERFA report and subsequent studies/evaluations were also reviewed in the preparation of the EBS. Over 25 documents were reviewed in the preparation of this EBS.

6. Section 3e - The Fort Devens Environmental Management Office should have been consulted in the interview process.

The Environmental Management Office was contacted concerning the status of USTs.

7. Section 4.0 - Why weren't the grease racks investigated?

Information concerning the grease rack was provided by the Fort Devens BRAC Environmental Office, which was incorporated into the EBS.

8. Section 5.0 - The title search needs to be more thorough (see comment on Section 2b).

See response to Section 2.0, b (comment 3 above).

9. Section 6.0 - The DOD guidance calls for a complete description of DOD and non-DOD activities at the site over at least 60 years. The activities at Building 1404 should have been checked out by consultation with DOL.

We are not aware of any information concerning site activities in the area of Building 1404 that was not included in the EBS. The attendant at Building 1404 was interviewed.

10. Section 7.0 - The second waste oil AST may have been a self-contained skid mounted tank. This should be checked with the EMO. All existing tanks should have been inventoried with a tank stick. The grease racks may occupy land now leased by the railroad. EMO oversaw the demolition and remediation of these racks.

The one AST in Building 1401 was a self-contained, skid-mounted tank. This was not clearly stated in the EBS, but the description has been revised. EMO was contacted concerning tank status for various locations. The EBS is a non-intrusive survey, and therefore, conducting tank inventories was not within the scope of this project. The grease rack information has been incorporated into the revised EBS.

11. Section 8.0 - See comment on relevancy of CERFA report above. Were any site-specific aerials consulted?

See response to Section 2.0, b (comment 3 above).

12. Section 9.0 - AREE 61E. There were two groundwater monitoring wells installed.

There are three ground water monitoring wells associated with the waste oil UST removal at Building 1401. The AREE 61E report, reviewed by Horne Engineering, did not list any wells at Building 1404. Based on our inspection of 1404, there is potential well southwest of the attendant's building. According to the Fort Devens BRAC Environmental Office, there are two wells near 1404. The EBS was revised to incorporate their comment. The significance of the monitoring well comment in the EBS, is that wells that are not being used should be closed as they can act as a conduit to the ground water.

13. There is no discussion/analysis of the intended reuse of the property.

The 1401 complex does not have a designated reuse at this time. This comment has been placed in the revised EBS.

Final

Environmental Baseline Survey for Proposed Lease Parcel Buildings 648, 649, and 655

Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts

Prepared for:

U.S. ARMY ENVIRONMENTAL CENTER
ABERDEEN PROVING GROUND, MARYLAND 21010

Prepared by:

ARTHUR D. LITTLE, INC.
25 Acorn Park
Cambridge, Massachusetts 02140-2390

Requests for this document must be referred to:
Commander, U.S. Army Environmental Center
Aberdeen Proving Ground, Maryland 21010

July 1995

AEC Form 45, 1 Feb 93 replaces THAMA Form 45 which is obsolete.

Final

Arthur D Little

Environmental Baseline Survey for Proposed Lease Parcel Buildings 648, 649, and 655

Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts

R N Lambe 7-13-95
Program Manager, Robert Lambe Date

Richard Waterman RE 7-13-95
Task Manager, Richard Waterman Date

Submitted to

U.S. Army Environmental Center (USAEC)
Aberdeen Proving Ground, Maryland

Revision 1
July 1995

Arthur D. Little, Inc.
Acorn Park
Cambridge, Massachusetts
02140-2390

ADL Reference 67073-21

DAAA15-91-D-0016
Delivery Order 0013

This document is printed on recycled paper and is recyclable.

Table of Contents

Acronyms and Abbreviations iii

Executive Summary iv

1.0 Introduction 1-1

2.0 Site Description 2-1
2.1 Proposed Lease Parcel 2-1
2.2 Adjacent Property 2-1

3.0 Survey Methodology 3-1
3.1 Review of the Community Environmental Response Facilitation Act 3-1
3.2 Records Search - Lease Parcel 3-2
3.3 Records Search - Adjacent Properties 3-2
3.4 Aerial Photographs and Historical Drawings Review 3-3
3.5 Interviews 3-3
3.6 Visual Inspections 3-3
3.7 Identification of Sources of Contamination on Adjacent Properties 3-4
3.8 Ongoing Response Actions 3-4
3.9 Physical Inspections - Adjacent Properties 3-4
3.10 Sampling 3-4

4.0 Relevant Information Gained During Records Search 4-1

5.0 Title Search 5-1

6.0 Description of Activities 6-1
6.1 Proposed Lease Parcel 6-1
6.2 Adjacent Properties 6-2
6.2.1 U.S. Army Reserves' Storage Building (622) 6-2
6.2.2 Vail Dental Clinic (Building 2729) 6-3
6.2.3 Soccer Field 6-3

7.0 Hazardous Substances and Petroleum Products Management Practices and Potential Impacts 7-1
7.1 Proposed Lease Parcel 7-1
7.2 Adjacent Properties 7-2
7.2.1 Underground Storage Tanks 7-2
7.2.2 Maintenance and Waste Accumulation Areas, AREE 61BD 7-2
7.2.3 Storm Sewer System No. 28 7-3
7.2.4 Unexploded Ordnance Study 7-3

8.0 Relevant Information From Records Review, Interviews, and Aerial Photographs Review 8-1

9.0 Ongoing Response Actions 9-1

10.0 Recommendation as to Suitability to Lease 10-1

11.0 References 11-1

12.0 Map References 12-1

List of Figures

Figure 1: Proposed Lease Parcel: Boston University Charter School

Acronyms and Abbreviations

ACM	Asbestos-Containing Material
AOC	Area of Concern
AREE	Area Requiring Environmental Evaluation
BRAC EE	Base Realignment and Closure Environmental Evaluation
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERFA	Community Environmental Response Facilitation Act
CHPPM	United States Army Center for Health Promotion and Preventative Medicine
DoD	Department of Defense
DOL	Directorate of Logistics
EBS	Environmental Baseline Survey
EMO	Environmental Management Office
EPA	United States Environmental Protection Agency
EPIC	Environmental Photographic Interpretation Center
FOSL	Finding of Suitability to Lease
LBP	Lead-Based Paint
No.	Number
PCB	Polychlorinated Biphenyl
pCi/L	PicoCuries per Liter
RPO	Real Property Office
SA	Study Areas
SCUBA	Self-Contained Underwater Breathing Apparatus
USAEC	United States Army Environmental Center
UST	Underground Storage Tank
UXO	Unexploded Ordnance

Executive Summary

An Environmental Baseline Survey (EBS) was undertaken to make a determination of the suitability to lease Buildings 648, 649, and 655 at Fort Devens, Massachusetts to the Massachusetts Government Landbank for a period of one year. The proposed lease parcel consists of approximately three acres of land containing the three buildings. The parcel is located in the Main Post between Sherman Avenue and MacArthur Avenue, northwest of Hodges Theater.

The EBS followed protocols outlined in the current Department of Defense (DoD) guidance on the environmental review process for the lease of real property at Base Realignment and Closure (BRAC) Installations. This process includes a records review, a review of aerial photographs, and a physical inspection of the proposed lease property and adjacent areas. The buildings within the proposed lease area were inspected for asbestos-containing materials (ACM) and radon. No other sampling activities occurred within the buildings at the proposed parcel.

Potential environmental concerns identified on the proposed lease parcel were ACM and lead-based paint (LBP). In general, the following building materials were found to contain friable asbestos: magnesia/calciform pipe insulation and pipe fittings, magnesia/calciform low-temperature tank insulation, and 1-foot by 1-foot vinyl floor tiles (Arthur D. Little, 1995a). Suspect materials not sampled, but assumed to contain asbestos include: duct joiner or anti-vibration material, rope gaskets, floor-tile mastic, roofing paper, fire door insulation, and roofing sealant. Overall, the friable and non-friable ACM was intact and in good condition. A LBP survey has not been conducted on the buildings; however, because the buildings were constructed in the early 1960s, there is a possibility of LBP on building surfaces. The buildings were occupied until late 1994, and the painted surfaces are in good condition; therefore, exposure to possible lead-containing paint is minimal. Radon concentrations in Buildings 648, 649, and 655 did not exceed 4 picoCuries per liter (pCi/L), the U.S. Environmental Protection Agency's (EPA's) annual average action level. As a result, impact from radon is not anticipated within the proposed lease parcel. According to existing documentation, no past spills or maintenance and waste accumulation areas were associated with the proposed lease parcel. A 12,000-gallon, No. 4 fuel oil underground storage tank (UST) is located south of Building 649. No releases from this tank have been documented.

Building 648, half of Building 649, and Building 655, are considered a Community Environmental Response Facilitation Act (CERFA)-qualified parcel due to presence of ACM and the possibility of LBP. The remainder of Buildings 649 is contained in a separate CERFA-disqualified parcel that contains a 12,000-gallon, No. 4 fuel oil UST south of the building. The UST is currently in use and is managed by the Fort Devens Environmental Management Office (EMO). The area in the center of all three

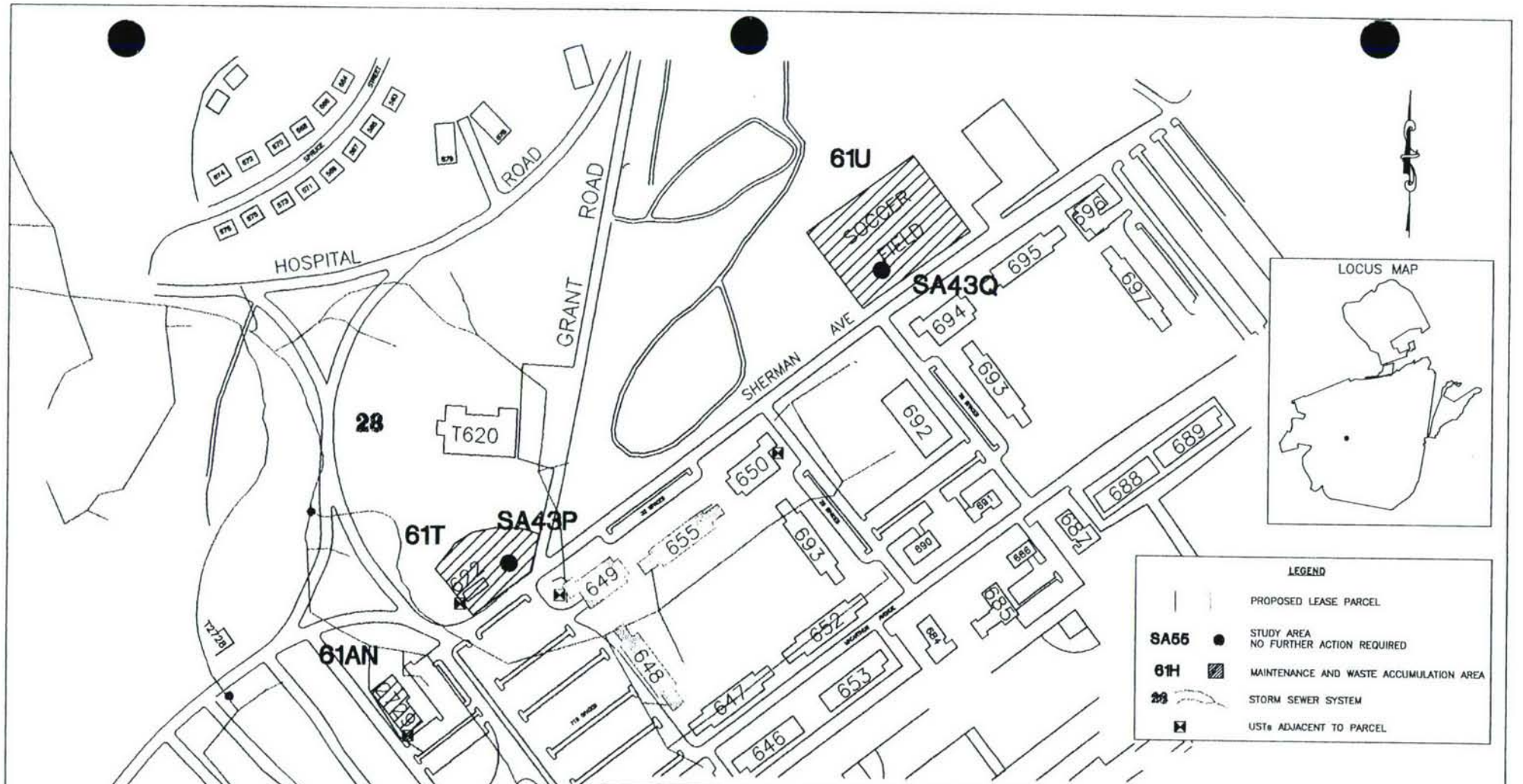
buildings, known as the quadrangle area, and a parking lot located west of Buildings 648 and 649, are considered CERFA parcels.

The records review identified three areas where investigations have occurred adjacent to the proposed lease parcel. These include the U.S. Army Reserves' storage building, Building 622; the Vail Dental Clinic, Building 2729; and an existing soccer field, formerly a historical gas station and motor pool. These three areas were investigated as Areas Requiring Environmental Evaluation (AREE) 61T, AREE 61U, and AREE 61AN, respectively, during the AREE 61 investigations. The soccer field and Building 622 were also investigated during the *Fort Devens Site Investigation Data Packages for Groups 2, 7, and Historic Gas Stations* study (ABB Environmental Services, 1993) identified as study area (SA) 43Q and SA 43P, respectively. No Areas of Contamination or SAs, as defined in the Interagency Agreement, were determined to be located within the proposed lease parcel.

Based upon the above factors, the proposed lease parcel is recommended for classification as suitable for lease. It is further recommended that, in accordance with DoD guidance, a hazardous substance notice is needed because petroleum products were stored for one year or more on the proposed lease parcel. The hazardous notice should be issued due to the fuel oil UST located at Building 649. A notice should also be dispensed for the presence of asbestos and potential presence of LPB within the lease parcel.

1.0 Introduction

This Environmental Baseline Survey (EBS) is being undertaken in accordance with current Department of Defense (DoD) guidance in order to make a determination of the suitability to lease Buildings 648, 649, and 655 at Fort Devens, Massachusetts to the Massachusetts Government Landbank for a period of one year. A right-to-use provision will also be granted for the parking lot west of Building 648 and the open quadrangle area located in the center of all three buildings. The proposed lease area consists of approximately 3 acres of land (see Figure 1).



Arthur D Little

APPROVALS	DATE
DRAWN MSB	7/11/95
CHECKED	
QA/CONTROL	
TECH REVIEW	
PROJ MNGR	

TITLE

FIGURE 1

PROPOSED LEASE PARCEL
BUILDINGS 648, 649, AND 655
FORT DEVENS, MASSACHUSETTS

PREPARED FOR: USAEC	SCALE: 1 IN. = 400 FT.
DATE: JULY 1995	DWG. NO.: 67073-07
SOURCE: ADL	SHEET 1 OF 1

p67073TEPS.EBS Surv.bu chart.txt.07/13/95

2.0 Site Description

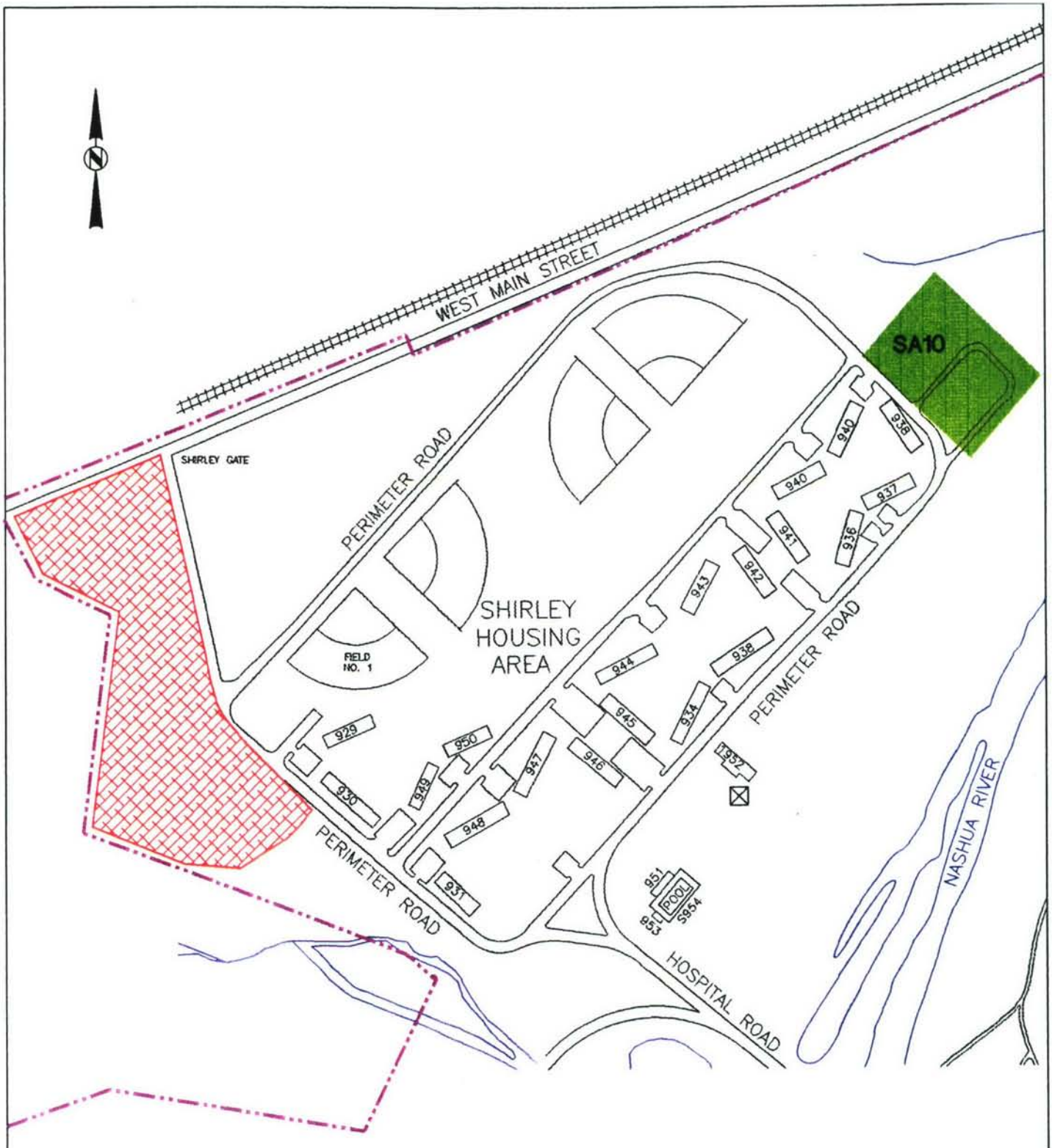
2.1 Proposed Lease Parcel

The proposed lease parcel consists of approximately 3 acres of land located in the Main Post between Sherman Avenue and MacArthur Avenue, north of Hodges Theater. The current buildings were constructed in the early 1960s for use as enlisted personnel's barracks, and as a mess hall. The buildings are of brick construction and total 104,787 square feet (U.S. Army Environmental Center [USAEC], 1994). Each building is described briefly below.

- Building 648 (50,010 square feet) was constructed in 1960 and was used as enlisted personnel's barracks. The building is currently unoccupied and has been returned to the Fort Devens Real Property Office (RPO).
- Building 649 (13,033 square feet) was also constructed in 1960 and used for enlisted personnel's dining. Although the building is unoccupied, it is currently the responsibility of the Directorate of Logistics (DOL). A 12,000-gallon, No. 4 fuel oil underground storage tank (UST) is located outside Building 649. The boiler plant in this building serves as district heating for Buildings 646, 647, 648, 649, and 655. The boilers are fueled by natural gas.
- Building 655 (41,744 square feet) was built in 1962 and used as enlisted personnel's barracks. The building is currently unoccupied and has been returned to the Fort Devens RPO.

2.2 Adjacent Property

Sherman Avenue runs along the northwest border of the proposed lease parcel, and MacArthur Avenue composes the southeast border. Grass, trees, a soccer field, and Building 622, an Army Reserves' storage building, line the west side of Sherman Avenue. A paved parking lot with room for approximately 600 vehicles is situated directly southwest of Buildings 648 and 649. A small parking lot is located directly north of Building 655. The Vail Dental Clinic, Building 2729, is situated west of the large parking lot on the opposite side of Givry Street.



SCALE

0 800 FT

LEGEND

- INSTALLATION BOUNDARY
- AREA OF SHIRLEY PARCEL
- FUEL OIL TANK
- LOCATION OF STUDY AREA 10

TITLE

FIGURE 1
THE SHIRLEY PARCEL
MASSACHUSETTS GOVERNMENT LANDBANK
FORT DEVENS, MA

PREPARED FOR: USAEC	SCALE: 1 IN. = 400 FT.
DATE: JUNE 1995	DWG. NO.: 67073-11
SOURCE: USAEC	SHEET 1 OF 1

3.0 Survey Methodology

This EBS was conducted in accordance with DoD guidance and consisted of the following:

- Review of the Community Environmental Response Facilitation Act (CERFA)
- Records search of the lease parcel
- Records search of adjacent facilities
- Aerial photographs and historical drawings review
- Interviews
- Visual inspections
- Identification of sources of contamination on adjacent property
- Identification of ongoing response actions

3.1 Review of the Community Environmental Response Facilitation Act

The *Final Community Environmental Response Facilitation Act (CERFA) Report* (Arthur D. Little, 1994a) was reviewed as part of this EBS. CERFA-identified property on Fort Devens that offers the greatest opportunity for immediate reuse and redevelopment. As part of the CERFA process, property where no Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-regulated hazardous substances or petroleum products were stored, released, or disposed of was identified. Non-CERCLA hazardous materials that were identified include asbestos, radon, polychlorinated biphenyls (PCBs), and LBP. At the close of the evaluation, four types of CERFA parcels were identified: CERFA clean parcels, CERFA parcels with qualifiers, CERFA-disqualified parcels, and CERFA-excluded parcels.

Building 648, half of Building 649, and Building 655, are considered CERFA-qualified parcels. This classification characterizes the parcel as containing no hazardous materials or petroleum products but states that the parcel contains non-CERCLA hazardous materials such as asbestos, LBP, and radon. A second characteristic of a CERFA-qualified area is that the site does not contain or have in the past a release of CERCLA hazardous materials. The buildings have undergone asbestos and radon surveys. Asbestos is generally found in building materials such as pipe insulation and pipe fittings, breaching insulation, rope gasketing, and floor tiles. Radon levels recorded in the three buildings were below the EPA's annual average action level of 4.0 picoCuries per liter (pCi/L) (Arthur D. Little, 1995b).

The remaining portion of Building 649 is considered a CERFA-disqualified parcel, currently or historically contained either CERCLA-regulated hazardous substances or petroleum products. The products may have been stored, released, or disposed of for one or more years. The portion of Building 649 considered CERFA-disqualified contains a 12,000-gallon, No. 4 fuel oil UST located on the south of the building. The UST is currently in use and is managed by the Fort Devens Environmental Management Office (EMO).

The central quadrangle area and large parking lot are both considered CERFA clean parcels.

3.2 Records Search - Lease Parcel

The records search consisted of a review of all environmental reports pertaining to the proposed lease parcel. References are provided in Sections 11.0 and 12.0. The records included:

- *Final Asbestos Survey Report (AREE 65)* (Arthur D. Little, 1995a)
- *Draft Industrial Radiation Survey Historical Data Review* (U.S. Army Center for Health Promotion and Preventative Medicine, 1995)
- *Final Radon Survey Report (AREE 67)* (Arthur D. Little, 1995b)
- Final Community Environmental Response Facilitation Act (CERFA) Report (Arthur D. Little, 1994a)
- *Final Storm Sewer System Evaluation Report (AREE 70)* (Arthur D. Little, 1994b)
- *Fort Devens Underground Storage Tank Management Plan* (Fort Devens EMO, 1994)
- *Historical Inventory Survey* (ENSR Consulting and Engineering, 1993)
- *Report of Availability* (USAEC, 1994)

3.3 Records Search - Adjacent Properties

The records search consisted of a review of all environmental reports pertaining to areas adjacent to the proposed lease parcel that may have an effect on the lease parcel. These records included:

- *Final Maintenance and Waste Accumulation Areas (AREE 61) Report* (Arthur D. Little, 1995c)
- *Final Storm Sewer System Evaluation Report (AREE 70)* (Arthur D. Little, 1994b)

- *Fort Devens Underground Storage Tank Management Plan* (Fort Devens Environmental Management Office, 1994)
- *Fort Devens Site Investigation Report* (ABB Environmental Services, 1993)
- *No Further Action Decision Under CERCLA. Study Area 43Q Historic Gas Station Sites* (ABB Environmental Services, 1995a)
- *No Further Action Decision Under CERCLA. Study Area 43P Historic Gas Station Sites* (ABB Environmental Services, 1995b)

3.4 Aerial Photographs and Historical Drawings Review

The aerial photographs review of Fort Devens, including the proposed lease parcel and adjacent properties, was conducted by the Environmental Photographic Interpretation Center (EPIC, 1991). Aerial photographs and historical drawings reviewed during the preparation of this EBS include:

- *Basic Information - Master Planning Detail Site and Building Use Map. Fort Devens, Massachusetts* (U.S. Army Corps of Engineers [USACE], 1954)
- *General Site Map, Fort Devens, Massachusetts* (USACE, 1986)
- *General Map, Camp Devens, Massachusetts* (War Department, 1919)
- *Property Map, Camp Devens, Massachusetts* (War Department, 1920)
- *General Layout Plan, Fort Devens, Massachusetts* (War Department, 1941)
- *Installation Assessment, Fort Devens, Ayer, Massachusetts* (EPIC, 1991)

3.5 Interviews

Interviews with current employees were conducted as part of the Area Requiring Environmental Evaluation (AREE) 61 portion of the Base Realignment and Closure Environmental Evaluation (BRAC EE) and the CERFA Report (Arthur D. Little, 1995c).

3.6 Visual Inspections

Visual inspections of the proposed lease parcel were conducted as part of the CERFA and asbestos investigations. The CERFA inspections took place during the summer of 1993, and the asbestos investigations took place during April of 1994.

3.7 Identification of Sources of Contamination on Adjacent Properties

Potential sources of contamination on adjacent properties were identified during the various studies identified in Section 3.3. These sources include the U.S. Army Reserves' storage building, Building 622; the Vail Dental Clinic, Building 2729; and the soccer field (a historical gas station and motor pool). These three areas were investigated as AREE 61T, AREE 61U, and AREE 61AN, respectively, during the AREE 61 investigation (Arthur D. Little, 1995c). The soccer field and Building 622 were also investigated during the *Fort Devens Site Investigation Groups 2, 7, and Historic Gas Stations* study (ABB Environmental Services, 1993) as Study Area (SA) 43Q and SA 43P, respectively.

3.8 Ongoing Response Actions

Currently, no sites within or adjacent to the proposed lease parcel have ongoing response actions.

3.9 Physical Inspections - Adjacent Properties

Physical inspections of the areas adjacent to the proposed lease parcel were conducted during the SA 43 studies, AREE 61 studies and asbestos investigations (AREE 65) in May 1993, November 1993, and April 1994, respectively.

3.10 Sampling

Asbestos and radon samples were collected in Buildings 648, 649, and 655 to determine the presence of asbestos-containing material (ACM) and radon. Asbestos samples were collected during April 1994, and radon samples were collected between 1990 and 1991. Geological sampling of adjacent properties during related SA 43 and AREE 61 studies occurred in May 1993, November 1993, and October 1994. Asbestos and radon samples from adjacent Buildings 622 and 2729 were collected during spring 1994 and between 1990 and 1991, respectively.

4.0 Relevant Information Gained During Records Search

During the records search, no areas of concern (AOCs) or SAs, as defined in the Interagency Agreement, were determined to be located within the proposed lease parcel. Environmental concerns associated with both the proposed lease parcel and adjacent properties are described in Section 7.0.

5.0 Title Search

The proposed lease parcel is contained on a portion of Fort Devens that was acquired in 1919 from the heirs of Levi W. Phelps for the establishment of Camp Devens (War Department, 1920). Detailed information of previous owners were identified in the CERFA report (Arthur D. Little, 1994a).

6.0 Description of Activities

6.1 Proposed Lease Parcel

Fort Devens, formerly known as Camp Devens, was established in 1917. The proposed lease parcel was acquired in 1919 from the heirs of Levi W. Phelps. Approximately 20 prefabricated wooden buildings were constructed on the land currently occupied by the proposed lease buildings during the spring of 1917, as the property was developed into an active Army training base during World War I (War Department, 1919). Three additional buildings and open grassy areas were located where the large parking lot exists. All 23 buildings were used as Army barracks and support buildings for the Second Infantry Brigade. During World War I, Sherman Road was identified as 14th Avenue, and Givry Street was known as Border Road.

During the 1920s, Fort Devens existed under a caretaker status, and as of the late 1920s, a majority of the World War I structures were demolished (ENSR Consulting and Engineering, 1993b). Historical drawings indicate that the proposed lease parcel, including the large parking lot, remained void of buildings through the 1930s. During the winter of 1940 to 1941, 27 wooden buildings were erected on what is now the large parking lot, and seven buildings and a paved parking area were constructed on the proposed lease parcel (War Department, 1941). The buildings were used as barracks (15 buildings), a dental clinic, enlisted mess (four buildings), company administration and storage (three buildings), day rooms (four buildings), a storehouse, an infirmary, a class room, a guard house, a recreation room, a laundry, and a post exchange (USACE, 1954). These buildings were demolished in the late 1950s, and the existing structures were constructed in 1960 and 1962.

Building 648, constructed in 1960, consists of three floors for a total of 50,010 square feet. It was used as enlisted barracks for 249 personnel. The building's foundation is constructed of reinforced concrete. The floor is reinforced concrete and composite tile, and the walls are concrete brick-faced. The building has a 5-ply insulated roof on concrete. Building 648 obtains central heating from Building 647. There are two 750-gallon hot water heaters with a temperature rise of 40 to 140°F. The building has an active fire detector and alarm system. The building also has water, sewer, electric, steam, and condensate utility connections. Building 648 has been returned to the management of the Fort Devens RPO.

Building 649, constructed in 1960, consists of one floor with 13,033 square feet. It was used for enlisted dining for 1,000 personnel. In 1981 the building was designated the Master Sergeant Richard T. Artesani, Jr. Dining Facility. The building's foundation is constructed of reinforced concrete. The floor is reinforced concrete and composite tile, and the walls are concrete brick-faced. The roof of the building is 5-

ply metal deck. The building contains a boiler plant consisting of three No. 4 oil-fired heating units that also serve as district heating for Buildings 646, 647, 648, and 655. Hot water is generated by the heating system in a 1,250-gallon tank. A 12,000-gallon, No. 4 fuel oil UST is located just south of the boiler plant. There are six fire extinguishers in the building. The building has water, sewer, electric, gas, steam, condensate, and telephone utility connections. It is currently the responsibility of the DOL.

Building 655, constructed in 1962, consists of three floors, for a total of 41,744 square feet. It was used as enlisted barracks for 249 men. The building's foundation is constructed of reinforced concrete. The floor is composite tile on reinforced concrete, and the walls are concrete brick-faced. The building has a 5-ply insulated roof on concrete. Building 655 receives hot water, which is stored in two 830-gallon tanks, from Building 649. There is an active fire detector and alarm system in place. The building has water, sewer, electric, steam, condensate, and telephone utility connections. Building 655 has been returned to the management of the Fort Devens RPO.

6.2 Adjacent Properties

6.2.1 U.S. Army Reserves' Storage Building (622)

Building 622, a U.S. Army Reserves' storage building, was investigated as part of the AREE 61 investigations (Arthur D. Little, 1995c) and the *Fort Devens Site Investigation Groups 2, 7, and Historic Gas Stations* study (ABB Environmental Services, 1993). The area is located on Sherman Avenue, northwest of the proposed lease buildings. This area is identified as AREE 61T. Historically, the building functioned as a classroom, Building 2925. According to aerial photographs, the building was constructed between 1952 and 1965. It consists of a concrete foundation with wood sides and a wood ceiling. The Reserves have occupied the building for approximately 1.5 years and use the building to store office equipment and supplies. Prior to being occupied by the Reserves, the building was used as a community center by the Enlisted Wives' Association.

An historical gas station, AREE 43P, existed in the area prior to 1945. The gas station was located on Sherman Avenue, approximately 150 feet northeast of the intersection of Givry Street and Sherman Avenue. It consisted of a pump island, a small gasoline pumphouse, and a 5,000-gallon UST. Motor pool operations were discontinued during the late 1940s or early 1950s. The UST was reportedly moved to, and installed at, SA 43I, another historical gas station located along Queenstown Road north or Building 604 (ABB Environmental Services, 1995b).

The utilities to Building 622 have been discontinued. A 1,000-gallon, No. 2 fuel oil UST, managed by EMO, is located on the north side of the building. It is scheduled to be removed in 1997.

6.2.2 Vail Dental Clinic (Building 2729)

Building 2729, was investigated as AREE 61AN during the AREE 61 investigations (Arthur D. Little, 1995c). The AREE is located on the corner of Givry Street and Lake George Street, southwest of the proposed lease parcel. Building 2729 is identified as the Vail Dental Clinic and has associated parking lots. The Clinic was constructed in 1965. A former dental facility, Building 2708, was located east of the present building, near the southern end of the existing parking lot. Building 2729 contains offices, examination rooms, and a waiting room. A 2,000-gallon, No. 2 fuel oil UST is located near the southeast corner of the building and is managed by EMO.

6.2.3 Soccer Field

The soccer field was investigated as AREE 61U during the AREE 61 investigations (Arthur D. Little, 1995c) and as SA 43Q during the *Fort Devens Site Investigation Groups 2, 7, and Historic Gas Stations* study (ABB Environmental Services, 1993). The field is located on Sherman Avenue north, northeast of the proposed lease buildings. During the 1940s, the area contained three buildings: a motor repair facility (2909), a vehicle shed (2913), and a gasoline pump station (184). The buildings were used during World War II to assist in military operations. According to aerial photographs, the buildings were demolished sometime between 1965 and 1972. The area is now used as a soccer field.

7.0 Hazardous Substances and Petroleum Products Management Practices and Potential Impacts

7.1 Proposed Lease Parcel

The hazardous material and petroleum management practices associated with the proposed lease parcel were reviewed as part of this EBS. No past spills nor maintenance and waste accumulation areas were associated with the proposed lease buildings. A 12,000-gallon, No. 4 fuel oil UST is located south of Building 649. Documentation indicates that there have been no releases from the UST, and no noncompliance issues for the tank are shown in the Fort Devens UST database that is maintained by EMO.

The AREE 65 Report identified ACM in Buildings 648, 649, and 655. Materials containing asbestos in the buildings include: friable magnesia/calciform pipe insulation and pipe fittings, friable magnesia/calciform low-temperature tank insulation, and non-friable 1-foot by 1-foot vinyl floor tiles, (Arthur D. Little, 1995a). Materials not sampled, but assumed to contain asbestos include: duct joiner or anti-vibration material, rope gaskets, floor-tile mastic, roofing paper, fire door insulation, and roofing sealant.

Magnesia/calciform pipe insulation with a 50 percent chrysotile/amosite asbestos content was found on steam heating lines in the mechanical room of Building 648. Magnesia/calciform insulation was found on the low-temperature tanks in the mechanical room of Buildings 648 and 655 with a concentration of 20 percent chrysotile asbestos. The fittings on the medium-pressure steam lines of asbestos runs in Building 648 mechanical room had a 50 percent chrysotile/amosite content, while the pipe fittings on non-asbestos-insulated pipe that runs throughout Buildings 648 and 655 contain 30 percent chrysotile asbestos. Vinyl floor tiles in Building 655, rooms 302 and 322, and in the kitchen office of Building 649 contain 2 percent chrysotile asbestos.

Documentation does not exist for determining the presence or absence of lead-based paint (LBP) in the buildings. However, since the buildings were constructed in the early 1960s, there is a potential for LBP throughout Buildings 648, 649, and 655.

The *Final Radon Survey Report, AREE 67*, (Arthur D. Little, 1995b) summarized the results of radon tests conducted in all three buildings. The year-long surveys were conducted from 1990 to 1991. Radon concentrations in Buildings 648, 649, and 655 were 2.00, 1.80, and 1.80 pCi/L, respectively. None of the concentrations exceed 4.0 pCi/L, the U.S. Environmental Protection Agency's (EPA's) annual average action level. As a result, impact from radon is not anticipated within the proposed lease parcel.

Industrial radiation at Fort Devens was studied by the U.S. Army Center for Health Promotion and Preventive Medicine (CHPPM). The study consisted of an historical data review. The proposed lease buildings were not designated as storing any radiological items in the draft report, and impact from radiation is not expected within the proposed lease parcel.

7.2 Adjacent Properties

7.2.1 Underground Storage Tanks

Four USTs are located in the immediate vicinity of the proposed lease parcel. A 12,000-gallon fuel oil UST exists at Building 650, immediately northeast of Building 655. A 1,000-gallon, No. 2 fuel oil UST, investigated during the AREE 61T study, is located on the north side of Building 622, west of Building 649 and across Sherman Avenue. A 2,000-gallon, No. 2 fuel oil UST investigated during the AREE 61AN study is located near the southeast corner of Building 2729. A 5,000-gallon fuel oil UST is associated with Building 2730, south of the proposed lease parcel. There are no documented spills or releases in association with any of the four existing USTs. All four USTs are included in the *Fort Devens Underground Storage Tank Management Plan* (Fort Devens EMO, 1994). The USTs at Buildings 622 and 2730 are scheduled for removal in 1997. No noncompliance issues for the USTs are indicated in the Fort Devens UST database that is maintained by EMO.

Two historical gas stations identified as SA 43Q and SA 43P were investigated. SA 43Q is located at the soccer field and SA 43P is located at Building 622. A surficial geophysical survey conducted during the SA 43Q site investigation indicated possible construction debris from the former pump house and pump island. The study did not indicate the presence of any abandoned USTs. Petroleum contamination was not detected, and a No Further Action decision for SA 43Q was issued (ABB Environmental Services, 1995b). The 5,000-gallon UST associated with SA 43P was reportedly moved to SA 43I, north or Building 604, and installed as a second UST at the historical station prior to 1952 (EPIC, 1991). Subsurface soil samples taken from SA 43P indicated no significant environmental contamination, and a No Further Action decision was issued for the area (ABB Environmental Services, 1995b).

7.2.2 Maintenance and Waste Accumulation Areas, AREE 61BD

As discussed in Section 6.2.1, Building 622 was investigated as part of the AREE 61T investigation (Arthur D. Little, 1995c). The area is located on Sherman Avenue northwest of the proposed lease buildings. The building is currently used by the Army Reserves to store office supplies and assorted equipment, including self-contained underwater breathing apparatus (SCUBA) tanks. No releases have occurred at the site, and potential impacts to the proposed lease parcel are minimal.

AREE 61U, a historical motor pool discussed in Section 6.2.3, is currently used as a soccer field. AREE 61U is located on Sherman Avenue north, northeast of the proposed lease buildings. An historical cesspool and drywell were associated with the historical motor pool and gas station. Geophysical surveys were conducted in an effort to identify the exact locations of the two historical structures. Subsurface soil samples showed no significant environmental contamination, and a No Further Action decision was recommended for the area (Arthur D. Little, 1995c).

AREE 61AN, Building 2729, is located on the corner of Givry Street and Lake George Street, southwest of the proposed lease parcel. It includes the Vail Dental Clinic and associated parking lots. No releases have occurred at the site, and potential impacts to the proposed lease parcel are minimal (Arthur D. Little, 1995c).

7.2.3 Storm Sewer System No. 28

According to the Storm Sewer System (AREE 70) Evaluation, System No. 28 primarily drains residential housing and the enlisted personnel's barracks - Buildings 647, 648, 649, 650, 651, 652, and 655. There are no AREEs or SAs discharging directly to System No. 28, but overland flow is collected from AREE 61T, Army Reserves' storage building (622); AREE 61AN, Vail Dental Clinic (2729); and SA 43P, historical motor pool (northeast of 622). No new contaminant sources were identified in System No. 28, as a result of storm sewer sampling.

7.2.4 Unexploded Ordnance Study

The USACE is currently conducting an Unexploded Ordnance (UXO) Survey throughout the Main and North Posts. Preliminary archival investigations identified 33 areas within the Main and North Posts that are potentially contaminated with UXO; 1of the 33 areas is a tree-covered area northwest of the proposed lease parcel between Hospital Road and Givry Road. Fieldwork associated with the survey began in March 1995. If no UXO is found, the area will no longer be considered a potential UXO site.

8.0 Relevant Information From Records Review, Interviews, and Aerial Photographs Review

Possible hazardous substances and petroleum product releases within the proposed lease parcel and adjacent properties were reviewed through a combination of the document review described in Sections 3.2 and 3.3, and interviews and visual inspections described in Sections 3.5 and 3.6. The aerial photographs and historical drawing review is described in Section 3.4. The hazardous substances and petroleum products management practices and potential impacts are mentioned in Section 7.0. No new AOCs were identified either within the proposed lease parcel or in adjacent properties as a result of the information review.

9.0 Ongoing Response Actions

There are no ongoing or completed response actions within or adjacent to the proposed lease parcel.

10.0 Recommendation as to Suitability to Lease

After an inspection of the proposed lease parcel and adjacent properties, a review of the documentation of adjacent properties, as well as a review of the anticipated activities within the proposed lease parcel, it is recommended that the parcel be found suitable to lease. The results of the review of the documentation on adjacent properties did not identify any potential impacts on the proposed lease parcel. Within the proposed lease parcel, the only potential environmental concerns are ACMs and LBP. It is recommended that, in accordance with DoD guidance, a hazardous substance notice is needed because petroleum products were stored for one year or more on the proposed lease parcel. The hazardous notice should be issued due to the fuel oil UST located at Building 649. A notice should also be dispensed for the presence of asbestos and potential presence of LBP in the proposed lease parcel.

11.0 References

ABB Environmental Services, Inc. 1993. *Fort Devens Site Investigation Report. Groups 2, 7, & Historic Gas Station.* May.

ABB Environmental Services, Inc. 1995a. *No Further Action Decision Under CERCLA. Study Area 43Q Historic Gas Station Sites. Fort Devens, Massachusetts.* January.

ABB Environmental Services, Inc. 1995b. *No Further Action Decision Under CERCLA. Study Area 43P Historic Gas Station Sites. Fort Devens, Massachusetts.* January.

Arthur D. Little, Inc. 1994a. *Final Community Environmental Response Facilitation Act (CERFA) Report, Fort Devens, Massachusetts.* April.

Arthur D. Little, Inc. 1994b. *Final Storm Sewer System Evaluation (AREE 70) Report.* June.

Arthur D. Little, Inc. 1995a. *Final Asbestos Survey Report (AREE 65) BRAC EE, Part II, Forth Devens, Massachusetts.* May.

Arthur D. Little, Inc. 1995b. *Final Radon Survey Report (AREE 67) BRAC EE, Part II Fort Devens, Massachusetts.* May.

Arthur D. Little, Inc. 1995c. *Final Maintenance and Waste Accumulation Areas (AREE 61) Report.* June.

ENSR Consulting and Engineering. 1993. *Historical Inventory Survey, Fort Devens, Massachusetts.*

Fort Devens Environmental Management Office. 1994. *Fort Devens Underground Storage Tank Management Plan, Fort Devens, Massachusetts.* December.

U.S. Army Center for Health Promotion and Preventive Medicine (CHPPM). 1995. *Draft Industrial Radiation Survey Historical Data Review.* Not yet published.

U.S. Army Environmental Center. 1994. *Report of Availability: Boston University Charter School, Inc. (Ref. AR 405-80).* November.

12.0 Map References

Environmental Photographic Interpretation Center. 1991. *Installation Assessment, Fort Devens, Massachusetts.* September.

U.S. Army Corps of Engineers. 1954. *Basic Information - Master Planning Detail Site and Building Use Map. Fort Devens, Massachusetts.*

U.S. Army Corps of Engineers. 1986. *General Site Map, Fort Devens, Massachusetts.* Scale 400:1.

War Department. 1919. *General Map, Camp Devens, Massachusetts.* Prepared by Construction Division, M & R Branch.

War Department. 1920. *Property Map, Camp Devens, Massachusetts.* Prepared by Construction Division. Scale 800:1.

War Department. 1941. *General Layout Plan, Fort Devens, Massachusetts.* Prepared by Construction Division. Scale 400:1.

Finding of Suitability to Lease (FOSL)

Fort Devens
(Buildings 648, 649, and 655)

Fort Devens, Massachusetts

July 1995

1.0 Purpose and Finding

a. The purpose of this FOSL is to document a decision made pursuant to Department of Defense (DoD) FOSL guidance that property is suitable to lease.

b. Based on results detailed in the Environmental Baseline Survey (EBS), I have determined that Buildings 648, 649, and 655 are suitable for lease for a period of one year to be used by the Massachusetts Government Landbank for administrative and/or academic purposes.

2.0 Property Description

The lease parcel consists of approximately 3 acres of land located in the Main Post between Sherman Avenue and MacArthur Avenue, north of Hodges Theater. The current buildings were constructed in the early 1960s for use as enlisted barracks, mess, and administrative offices. The buildings are of permanent brick construction, totalling 104,787 square feet (USAEC, 1994). Each building is described briefly below.

- Building P-648 (50,010 square feet) was constructed in 1960 and was used for enlisted barracks without dining. The building is vacant and has been returned to the Real Property Office (RPO).

- Building P-649 (13,033 square feet) was also constructed in 1960 and was used for enlisted personnel's dining. Although the building is vacant, it is currently signed out by Mr. Schmidt of the Directorate of Logistics because of mess hall property stored in the building. A 12,000 gallon, No. 4 fuel oil, underground storage tank (UST) is associated with P-649. A boiler plant in this building serves as district heating for surrounding buildings. The boilers are dual-fueled by natural gas.

- Building P-655 (41,744 square feet) was built in 1962 and used for enlisted barracks without dining. The building is vacant and has been returned to the RPO.

Finding of Suitability to Lease (FOSL)

Fort Devens
(Buildings 648, 649, and 655)

3.0 Environmental Condition of Property

An analysis of the environmental condition of the site proposed for lease has been made by the United States Army Environmental Center in the form of an EBS for Buildings 648, 649, and 655. The EBS was conducted in accordance with the requirements of the DoD FOSL guidance for conducting an EBS.

The only environmental conditions of potential concern identified on the proposed lease parcel were asbestos-containing materials and lead-based paint (LBP). The following building materials were found to contain asbestos: magnesia/calciform pipe insulation and pipe fittings, magnesia/calciform low-temperature tank insulation, and 1-foot by 1-foot vinyl floor tile. Materials assumed to contain asbestos include: duct joiner or anti-vibration material, rope gaskets, floor-tile mastic, roofing paper, fire door insulation, and roofing sealant. No data on LBP exists for the buildings, but due to the age of the building, there is a possibility of LBP. The buildings were occupied until late 1994, and the painted surfaces are in good condition. Therefore, the potential for exposure to possible LBP is minimal. Children and adolescents will not occupy the proposed lease parcel. Petroleum products were determined to be stored on, but not released on, the proposed lease parcel. A 12,000-gallon, No. 4 fuel oil UST is located south of Building P-649, and no releases from this tank have been documented.

Based upon the EBS and the references cited therein, the proposed lease parcel is suitable for lease for administrative and/or academic purposes. In accordance with the DoD FOSL guidance and CERCLA 120(h), hazardous substance notice will be given for the 12,000-gallon, No. 4 fuel oil UST and for the presence of asbestos and potential presence of LBP within the proposed lease parcel.

Adjacent properties do not pose a risk to human health or the environment on the proposed lease parcel because although hazardous substances and/or petroleum products were stored for a year or more on adjacent properties, there is no evidence of a release or disposal of such substances. Adjacent properties where investigations have occurred include the U.S. Army Reserves' Storage, Building 622; the Vail Dental Clinic, Building 2729; and the soccer field (an historical gas station and motor pool).

3.1 Regulatory Comment

Regulatory agencies were notified at the initiation of the EBS and FOSL. Regulatory comments received during the development of these documents were reviewed and incorporated.

3.2 Lease Provisions

a. Hazardous substance or petroleum product notices, as provided in Section 3.0, will be given.

b. Provisions will be included in the lease to ensure that the requirements of Section IV (E) and (G) of the DoD FOSL Policy are met.

c. The model lease provisions attached to the DoD FOSL Policy will be included in the lease.

d. A notice will also be given for the presence of asbestos and potential presence of LBP within the proposed lease parcel. This notice will include a statement about the responsibilities of the Lessee if the use of the lease parcel changes to a residential property.

e. The Army shall have access to the property in any case in which a response action or corrective action is found to be necessary after the date of the property lease, or such access is necessary to carry out a response action or corrective action on adjacent property.

4.0 Conclusion

Based on the above information, I conclude that the DoD requirements to reach a FOSL have been met and, therefore, this parcel, Buildings 648, 649, and 655, can be used pursuant to the proposed lease. The Comprehensive Environmental Response, Compensation, and Liability Act 120 (h) (1) notice requirements and the lease restriction discussed above must be placed in the lease.

Lewis D. Walker
Deputy Assistant Secretary of the Army
(Environmental, Safety, and Occupational Health)
OASA (I,L&E)

Finding of Suitability to Lease (FOSL)

Fort Devens
(Buildings 648, 649, and 655)

Fort Devens, Massachusetts

July 1995

1.0 Purpose and Finding

a. The purpose of this FOSL is to document a decision made pursuant to Department of Defense (DoD) FOSL guidance that property is suitable to lease.

b. Based on results detailed in the Environmental Baseline Survey (EBS), I have determined that Buildings 648, 649, and 655 are suitable for lease for a period of one year to be used by the Massachusetts Government Landbank for administrative and/or academic purposes.

2.0 Property Description

The lease parcel consists of approximately 3 acres of land located in the Main Post between Sherman Avenue and MacArthur Avenue, north of Hodges Theater. The current buildings were constructed in the early 1960s for use as enlisted barracks, mess, and administrative offices. The buildings are of permanent brick construction, totalling 104,787 square feet (USAEC, 1994). Each building is described briefly below.

- Building P-648 (50,010 square feet) was constructed in 1960 and was used for enlisted barracks without dining. The building is vacant and has been returned to the Real Property Office (RPO).

- Building P-649 (13,033 square feet) was also constructed in 1960 and was used for enlisted personnel's dining. Although the building is vacant, it is currently signed out by Mr. Schmidt of the Directorate of Logistics because of mess hall property stored in the building. A 12,000 gallon, No. 4 fuel oil, underground storage tank (UST) is associated with P-649. A boiler plant in this building serves as district heating for surrounding buildings. The boilers are dual-fueled by natural gas.

- Building P-655 (41,744 square feet) was built in 1962 and used for enlisted barracks without dining. The building is vacant and has been returned to the RPO.

Finding of Suitability to Lease (FOSL)

Fort Devens
(Buildings 648, 649, and 655)

3.0 Environmental Condition of Property

An analysis of the environmental condition of the site proposed for lease has been made by the United States Army Environmental Center in the form of an EBS for Buildings 648, 649, and 655. The EBS was conducted in accordance with the requirements of the DoD FOSL guidance for conducting an EBS.

The only environmental conditions of potential concern identified on the proposed lease parcel were asbestos-containing materials and lead-based paint (LBP). The following building materials were found to contain asbestos: magnesia/calciform pipe insulation and pipe fittings, magnesia/calciform low-temperature tank insulation, and 1-foot by 1-foot vinyl floor tile. Materials assumed to contain asbestos include: duct joiner or anti-vibration material, rope gaskets, floor-tile mastic, roofing paper, fire door insulation, and roofing sealant. No data on LBP exists for the buildings, but due to the age of the building, there is a possibility of LBP. The buildings were occupied until late 1994, and the painted surfaces are in good condition. Therefore, the potential for exposure to possible LBP is minimal. Children and adolescents will not occupy the proposed lease parcel. Petroleum products were determined to be stored on, but not released on, the proposed lease parcel. A 12,000-gallon, No. 4 fuel oil UST is located south of Building P-649, and no releases from this tank have been documented.

Based upon the EBS and the references cited therein, the proposed lease parcel is suitable for lease for administrative and/or academic purposes. In accordance with the DoD FOSL guidance and CERCLA 120(h), hazardous substance notice will be given for the 12,000-gallon, No. 4 fuel oil UST and for the presence of asbestos and potential presence of LBP within the proposed lease parcel.

Adjacent properties do not pose a risk to human health or the environment on the proposed lease parcel because although hazardous substances and/or petroleum products were stored for a year or more on adjacent properties, there is no evidence of a release or disposal of such substances. Adjacent properties where investigations have occurred include the U.S. Army Reserves' Storage, Building 622; the Vail Dental Clinic, Building 2729; and the soccer field (an historical gas station and motor pool).

3.1 Regulatory Comment

Regulatory agencies were notified at the initiation of the EBS and FOSL. Regulatory comments received during the development of these documents were reviewed and incorporated.

3.2 Lease Provisions

a. Hazardous substance or petroleum product notices, as provided in Section 3.0, will be given.

b. Provisions will be included in the lease to ensure that the requirements of Section IV (E) and (G) of the DoD FOSL Policy are met.

c. The model lease provisions attached to the DoD FOSL Policy will be included in the lease.

d. A notice will also be given for the presence of asbestos and potential presence of LBP within the proposed lease parcel. This notice will include a statement about the responsibilities of the Lessee if the use of the lease parcel changes to a residential property.

e. The Army shall have access to the property in any case in which a response action or corrective action is found to be necessary after the date of the property lease, or such access is necessary to carry out a response action or corrective action on adjacent property.

4.0 Conclusion

Based on the above information, I conclude that the DoD requirements to reach a FOSL have been met and, therefore, this parcel, Buildings 648, 649, and 655, can be used pursuant to the proposed lease. The Comprehensive Environmental Response, Compensation, and Liability Act 120 (h) (1) notice requirements and the lease restriction discussed above must be placed in the lease.

Lewis D. Walker
Deputy Assistant Secretary of the Army
(Environmental, Safety, and Occupational Health)
OASA (I,L&E)

Comment and Response Package

U.S. Environmental Protection Agency (USEPA) New England Division Comments on the Draft Environmental Baseline Survey, Proposed Lease Parcel Buildings 648, 649, and 655

Submitted to Fort Devens Base Realignment and Closure Division, Environmental Management Office

Prepared for:

U.S. ARMY ENVIRONMENTAL CENTER
ABERDEEN PROVING GROUND, MARYLAND 21010

Prepared by:

Arthur D. Little, Inc.
25 Acorn Park
Cambridge, Massachusetts 02140-2390

Requests for this document must be referred to:
Commander, U.S. Army Environmental Center
Aberdeen Proving Ground, Maryland 21010

July 1995

AEC Form 45, 1 Feb 93 replaces THAMA Form 45 which is obsolete.

Response to USEPA New England Division Comments
Draft Environmental Baseline Survey, Proposed Lease Parcel
Buildings 648, 649, and 655

General Comments

Comment

1. **Cover:** Please correct the cover page to reflect the parcel being evaluated.

Response

1. The cover page for the EBS has been corrected.

Comment

2. **Header:** The header in the upper right hand corner of all pages says "EBS/FOST." It should say "EBS/FOSL."

Response

2. The header for the EBS has been corrected.

Comment

3. **Page iv, Executive Summary:** In the FOSL, friable asbestos is mentioned; here you say that "Overall, the ACBM was intact and in good condition." Please clarify.

Response

3. The sentence has been clarified to read: "Overall the friable and non-friable ACM was intact and in good condition."

Comment

4. **Figure 1-1:** This is not the correct Figure. Please insert the Figure containing the Boston University Charter School. Additionally, it would be helpful if the Figure had a CERFA map overlay.

Response

4. The correct figure has been inserted in the EBS.

   As an EBS, this document reviewed the CERFA report to identify CERCLA-related hazards associated with the proposed lease parcel. The CERFA map can be found in its entirety, along with the accompanying table detailing the basis of parcel designation, in the *Final CERFA Report, Fort Devens, Massachusetts.* The figure currently shows any CERCLA-related hazards in the form of underground storage tanks, Study Areas, and Areas Requiring Environmental Evaluation. A CERFA overlay would not enhance the figure and has, therefore, not been added.

Comment

5. **Page 7-1, Section 7.1: a.** Is the UST in compliance with DEP/Fire Department regulations? Who will have responsibility for the management of this UST after the parcel is leased? **b.** The FOSL mentions the presence of friable asbestos on the parcel. There is no reference to it here. Does it exist? Are any removals/encapsulations planned? Who will have the responsibility of implementing the O&M plan? **c.** If this is to be a school, shouldn't the presence and condition of lead-based paint be a concern worthy of further investigation? Will a survey be conducted? Whose responsibility will it be? **d.** Whose responsibility will any further radon testing be?

Response

5. **a.** No noncompliance issues are indicated in the Fort Devens undeground storage tank database. After the parcel is leased, the undeground storage tank will continue to be managed by the Fort Devens Environmental Management Office.

   b. Materials containing friable asbestos in the buildings include magnesia/calciform pipe insulation and pipe fittings, and magnesia/calciform low-temperature tank insulation. All friable insulation is located in the mechanical rooms of Buildings 648 and 655. Friable tank fittings are located throughout Buildings 648 and 655. No removals or encapsulations are planned. This information has been added to the text.

   c. At present, no additional lead-based paint studies are planned. Any further investigation of lead-based paint will be arranged between the lessor and the lessee.

d. In that the Army has demonstrated that elevated radon levels are not present in the proposed lease buildings, any additional radon testing will be the responsibility of the lessee.

Comment

6. **Page 7-2, Section 7.2:** Are all of the USTs currently in compliance with DEP/Fire Department regulations?

Response

6. The Fort Devens undeground storage tank database maintained by the Environmental Management Office does not indicate any noncompliance issues for the undeground storage tanks.

Comment

7. **FOSL: a.** The FOSL and EBS should refer to Section 37 of the soon to be amended FFA regarding transfers/leases of property. **b.** Per the DoD guidance pertaining to FOSLs (pp. 5&6, nos. 2&3), where hazardous substances are present on the parcel, specific lease restrictions on the use of the parcel to protect human health and the environment as well as any environmental restoration needed should be included and identified in the FOSL (i.e., more detail needed).

Response

7. **a. and b.** The Finding of Suitability to Lease has been updated to include all necessary lease restrictions for the proposed lease parcel.

Final

Environmental Baseline Survey for Proposed Shirley Lease Parcel Fort Devens, Massachusetts

Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts

Prepared for:

U.S. ARMY ENVIRONMENTAL CENTER
ABERDEEN PROVING GROUND, MARYLAND 21010

Prepared by:

HORNE ENGINEERING SERVICES, INC.
ALEXANDRIA, VIRGINIA 22302

Requests for this document must be referred to:
Commander, U.S. Army Environmental Center
Aberdeen Proving Ground, Maryland 21010

November 1995

AEC Form 45, 1 Feb 93 replaces THAMA Form 45 which is obsolete.

Final

Arthur D Little

Environmental Baseline Survey for Proposed Shirley Lease Parcel Fort Devens, Massachusetts

Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts

Submitted to

U.S. Army Environmental Center (USAEC)
Aberdeen Proving Ground, Maryland

Prepared by:

Horne Engineering Services, Inc.
Alexandria, Virginia 22302

This document is printed on recycled paper and is recyclable.

November 1995

Notice

The Environmental Baseline Survey (EBS) for the Proposed Lease Parcel, Shirley Property was researched and prepared by Horne Engineering Services, Inc., under Contract No. DAAA15-94-D-0012. All findings and conclusions regarding the environmental status of the Shirley Property were developed by Horne. The U.S. Army Environmental Center requested Arthur D. Little, Inc., to prepare responses to U.S. Environmental Protection Agency's comments and format the EBS.
Arthur D. Little did not perform additional records reviews or site inspections in support of this EBS.

Table of Contents

List of Acronyms and Abbreviations iii

Executive Summary iv

1.0 Introduction 1-1

2.0 Site Description 2-1
2.1 Proposed Lease Parcel 2-1
2.2 Adjacent Property 2-1

3.0 Survey Methodology 3-1
3.1 Review of the Community Environmental Response Facilitation Act 3-1
3.2 Records Search - Proposed Lease Parcel 3-1
3.3 Records Search - Adjacent Properties 3-2
3.4 Aerial Photograph Review 3-4
3.5 Interviews 3-4
3.6 Visual Inspections 3-4
3.7 Identification of Sources of Contamination on Adjacent Property 3-4
3.8 Ongoing Response Actions 3-4
3.9 Physical Inspections - Adjacent Properties 3-5
3.10 Sampling 3-5

4.0 Relevant Information Gained During Records Search 4-1

5.0 Title Search 5-1

6.0 Description of Activities 6-1
6.1 Proposed Lease Parcel 6-1
6.2 Adjacent Properties 6-1

7.0 Hazardous Substances and Petroleum Products Management Practices and Potential Impacts 7-1
7.1 Proposed Lease Parcel 7-1
7.2 Adjacent Properties 7-1

8.0 Relevant Information From Records Review, Interviews, and Aerial Photographs Review 8-1

9.0 Ongoing Response Actions 9-1

10.0 Recommendation as to Suitability to Lease 10-1

11.0 References 11-1

List of Figures

Figure 1: Proposed Lease Parcel - Shirley Property 2-2

List of Acronyms and Abbreviations

AREE	Area Requiring Environmental Evaluation
BRAC	Base Realignment and Closure
CERFA	Community Environmental Response Facilitation Act
DoD	Department of Defense
EBS	Environmental Baseline Survey
EPA	U.S. Environmental Protection Agency
EPIC	Environmental Photographic Interpretation Center
SA	Study Area
USAEC	U.S. Army Environmental Center
UST	Underground Storage Tank
UXO	Unexploded Ordnance

Executive Summary

An Environmental Baseline Survey (EBS) was undertaken to make a determination of the suitability to lease approximately 9.2 acres of undeveloped land at Fort Devens, Massachusetts, to the Massachusetts Government Landbank. The Massachusetts Government Landbank intends on leasing the property to the Town of Shirley for municipal purposes. The EBS followed the protocols outlined in current Department of Defense (DoD) Guidance. This included records review, review of aerial photographs, and physical inspection of the proposed lease parcel and adjacent areas. Sampling was not conducted on the proposed lease parcel. This EBS is a supplement to the Final Community Environmental Response Facilitation Act (CERFA) Report for the Fort Devens Facility, Fort Devens, Massachusetts, April 1994 (Arthur D. Little).

The EBS presents the results of a site inspection and document review of the proposed lease parcel. The proposed lease parcel and surrounding areas and structures were inspected on September 9, 1994. An adjacent property, Study Area (SA) 10, evaluated suspected demolition debris landfilling in the area of the former Fort Devens hospital, located southeast of the proposed parcel. The investigation did not identify construction debris in the area and, therefore, a no further action decision document was issued in January 1995 (Arthur D. Little).

According to CERFA, the proposed lease parcel is classified as CERFA clean. This determination characterizes the parcel as currently or historically containing no hazardous materials, petroleum products, asbestos, lead-based paint, or radon.

Based on the above factors, the proposed lease parcel is suitable for lease. In accordance with DoD guidance, hazardous substance notice is not needed because petroleum products or hazardous materials were not stored for one year or more, or released, treated, or disposed of on the proposed lease parcel. Furthermore, storage or potential releases on adjacent properties are unlikely to impact the proposed lease parcel.

1.0 Introduction

This Environmental Baseline Survey (EBS) is being undertaken in accordance with the current Department of Defense (DoD) guidance in order to determine the suitability to lease 9.2 acres of land to the Massachusetts Government Landbank who, in turn, intends on leasing the parcel to the town of Shirley. This EBS is a supplement to the Final Community Environmental Response Facilitation Act (CERFA) Report for the Fort Devens Facility, Fort Devens, Massachusetts, April 1994. The Massachusetts Government Landbank plans on leasing the property to the town of Shirley to construct a municipal/government center consisting of a town hall, police station, administrative offices, and a highway department maintenance garage. The length of the lease is 30 years.

2.0 Site Description

2.1 Proposed Lease Parcel

Fort Devens is located in the Commonwealth of Massachusetts approximately 35 miles northwest of the city of Boston. Fort Devens is located within the towns of Ayer, Shirley, Harvard, and Lancaster, occupying a total land area of approximately 9,280 acres.

The proposed lease parcel (Figure 1) is located west of Perimeter Road and just south of the Shirley gate. The parcel is defined by the Fort Devens property fence/line to the north and west, Perimeter Road to the east, and grassland to the south. The parcel is currently undeveloped with grass, shrub, and tree coverage. Although there are no structures, there are several locations where asphalt pavement is visible among the vegetation. The asphalt appears to have been intentionally spread and the locations do not appear to be indicative of disposal sites.

2.2 Adjacent Property

The proposed lease parcel is surrounded by undeveloped land and the Shirley Housing Area to the southeast. Directly west of the parcel on the other side of the Fort Devens property line is a densely populated residential area of Shirley, Massachusetts. North of the site are railroad tracks and West Main Street. Areas east and south of the property are within the Fort Devens Main Installation boundaries and consist of open recreational and residential spaces, such as baseball fields, and housing units.

3.0 Survey Methodology

3.1 Review of the Community Environmental Response Facilitation Act

The EBS was conducted in accordance with DoD guidance and is a supplement to the Final CERFA Report for the Fort Devens Facility, Fort Devens, Massachusetts, April 1994. This CERFA Report was reviewed to establish existing site conditions. However, supplemental investigative activities have occurred since the CERFA inspection and may modify conclusions drawn in the CERFA Report.

3.2 Records Search - Proposed Lease Parcel

A detailed records review was conducted as part of the CERFA Report and included all environmental reports that studied the proposed lease parcel. References are provided in Section 11.0. The records include:

- Argonne National Laboratory, April 1992. *Final Master Environmental Plan for Fort Devens, Massachusetts.*
- Arthur D. Little, Inc., April 1993. *Final Supplemental Work Plan, Main Post Site Investigation.*
- Arthur D. Little, Inc., October 1993. *Draft Past Spill Sites Report (AREE 69) BRAC EE, Fort Devens, Massachusetts.*
- Arthur D. Little, Inc., October 1993. *Draft Underground Storage Tanks (AREE 63), Memorandum Work Plan, Fort Devens, Massachusetts.*
- Arthur D. Little, Inc., November 1993. *Draft Maintenance and Waste Accumulation Areas (AREE 61) Report, Fort Devens, Massachusetts.*
- Arthur D. Little, Inc., November 1993. *Draft Previously Removed Underground Storage Tanks (AREE 63), BRAC EE.*
- Arthur D. Little, Inc., November 1993. *Draft Transformer Study Report (AREE 66), Fort Devens, Massachusetts.*
- Arthur D. Little, Inc., December 1993. *Site Investigation Report.*
- Arthur D. Little, Inc., April 1994. *Community Environmental Response Facilitation Act (CERFA) Report, Fort Devens, Massachusetts.*
- Arthur D. Little, Inc., June 1994. *Final Storm Sewer Evaluation (AREE 70) Report, BRAC EE, Volume I and II of II.*

- Arthur D. Little, Inc., July 1994. *Draft Radon Survey (AREE 67), Base Realignment and Closure Environmental Evaluation, Part II, Fort Devens, Massachusetts.*
- Chambers, James C., BRAC Environmental Coordinator, July 1994. *Environmental Restoration Superfund Update.*
- Environmental Monitoring Systems, September 1991. *Installation Assessment Fort Devens (EPA) Volume I.*
- Fort Devens EMO. May 1994. AREE 62, *Underground Storage Tank Data.*
- HUB Testing Laboratories, April 1992. *Draft Fort Devens Asbestos Material Survey Analysis and Assessment.*
- Kohn, Judy, February, 1995. Fort Devens Reuse Office.
- Kurz Associates, Inc., January 1991. *Underground Storage Tank Removal and Related Environmental Investigations, Fort Devens Military Reservations, Harvard, Massachusetts.*
- Louis Berger and Associates, October 1993. *EA and FONSI.*
- Roy F. Weston, Inc., April 1992. *Final Delivery Order 9, Enhanced Preliminary Assessment.*
- Roy F. Weston, April 1994. *Enhanced Preliminary Assessment Fort Devens Massachusetts.*
- SEA Consultants, February 1994. *Draft Report for the Phase I Non-Residential Floor Drain Evaluation Study.*
- The Earth Technology Corporation, April 1994. *Final Base Realignment and Closure Plan.*
- U.S. Army Environmental Center, July 1994. *Environmental Baseline Survey - Proposed Permit for the Cutler Army Hospital Building and Building 1677.*

3.3 Records Search - Adjacent Properties

A detailed records review was conducted as part of the CERFA report and included all environmental reports that studied areas adjacent to the proposed lease parcel that may have affected the lease parcel. The records include:

- Argonne National Laboratory, April 1992. *Final Master Environmental Plan for Fort Devens, Massachusetts.*
- Arthur D. Little, Inc., April 1993. *Final Supplemental Work Plan, Main Post Site Investigation.*

- Arthur D. Little, Inc., October 1993. *Draft Past Spill Sites Report (AREE 69) BRAC EE, Fort Devens, Massachusetts.*
- Arthur D. Little, Inc., October 1993. *Draft Underground Storage Tanks (AREE 63), Memorandum Work Plan, Fort Devens, Massachusetts.*
- Arthur D. Little, Inc., November 1993. *Draft Maintenance and Waste Accumulation Areas (AREE 61) Report, Fort Devens, Massachusetts.*
- Arthur D. Little, Inc., November 1993. *Draft Previously Removed Underground Storage Tanks (AREE 63), BRAC EE.*
- Arthur D. Little, Inc., November 1993. *Draft Transformer Study Report (AREE 66), Fort Devens, Massachusetts.*
- Arthur D. Little, Inc., December 1993. *Site Investigation Report.*
- Arthur D. Little, Inc., April 1994. *Community Environmental Response Facilitation Act (CERFA) Report, Fort Devens, Massachusetts.*
- Arthur D. Little, Inc., June 1994. *Final Storm Sewer Evaluation (AREE 70) Report, BRAC EE, Volume I and II of II.*
- Arthur D. Little, Inc., July 1994. *Draft Radon Survey (AREE 67), Base Realignment and Closure Environmental Evaluation, Part II, Fort Devens, Massachusetts.*
- Arthur D. Little, Inc. January 1995. *No Further Action Decision Under CERCLA, Study Area 10: Construction Debris Area.*
- Chambers, James C., BRAC Environmental Coordinator, July 1994. *Environmental Restoration Superfund Update.*
- Environmental Monitoring Systems, September 1991. *Installation Assessment Fort Devens (EPA) Volume I.*
- Fort Devens EMO. May 1994. *AREE 62, UST Data.*
- HUB Testing Laboratories, April 1992. *Draft Fort Devens Asbestos Material Survey Analysis and Assessment.*
- Kohn, Judy, February, 1995. Fort Devens Reuse Office.
- Kurz Associates, Inc., January 1991. *Underground Storage Tank Removal and Related Environmental Investigations, Fort Devens Military Reservations, Harvard, Massachusetts.*
- Louis Berger and Associates, October 1993. *EA and FONSI.*
- Roy F. Weston, Inc., April 1992. *Final Delivery Order 9, Enhanced Preliminary Assessment.*
- Roy F. Weston, April 1994. *Enhanced Preliminary Assessment Fort Devens Massachusetts.*

- S E A Consultants, February 1994. *Draft Report for the Phase I Non-Residential Floor Drain Evaluation Study.*
- The Earth Technology Corporation, April 1994. *Final Base Realignment and Closure Plan.*
- U.S. Army Environmental Center, July 1994. *Environmental Baseline Survey - Proposed Permit for the Cutler Army Hospital Building and Building 1677.*

3.4 Aerial Photograph Review

An aerial photograph review was conducted as part of the Installation Assessment for Fort Devens by the Environmental Photographic Interpretation Center (EPIC) for the United States Army Environmental Center (USAEC) during September 1991.

3.5 Interviews

Interviews were conducted as part of the records review during the CERFA report. Horne Engineering interviewed representatives of the Department of Public Works and the Base Realignment and Closure (BRAC) Office.

3.6 Visual Inspections

Visual inspections of the proposed lease parcel were conducted during the CERFA report and in September 1994 by representatives of Horne Engineering.

3.7 Identification of Sources of Contamination on Adjacent Property

Potential sources of contamination on adjacent property and their potential impacts were identified during the various studies and in the CERFA report. Potential impacts are described in Section 7.0.

3.8 Ongoing Response Actions

Currently no sites within or adjacent to the proposed lease parcel have an ongoing response action.

3.9 Physical Inspections - Adjacent Properties

Physical inspections of the areas adjacent to the proposed lease parcel were conducted during the CERFA report and in September 1994 by representatives of Horne Engineering.

3.10 Sampling

No sampling activities occurred in the proposed lease parcel. The adjacent Shirley Housing Area was sampled for asbestos and radon in 1994 and 1990, respectively.

4.0 Relevant Information Gained During Records Search

A detailed records review was conducted as part of the CERFA report. A similar review of documents (see Section 11.0) was undertaken by Horne Engineering. Environmental concerns associated with both the proposed lease parcel and adjacent properties are described in Section 7.0.

5.0 Title Search

According to the Fort Devens Reuse Office, the proposed lease parcel is contained on a portion of Fort Devens that was acquired in 1917. Detailed information of previous owners were identified in the CERFA report (Arthur D. Little, 1994).

6.0 Description of Activities

6.1 Proposed Lease Parcel

The proposed lease parcel is vacant and used for recreational activities. The majority of the parcel consists of open grassland. Along the western border of the installation there is a new growth forest. Scattered among the grasses and forested area throughout the parcel are patches of broken asphalt. The origin of the asphalt is unknown. There is no other evidence of construction within the proposed lease parcel.

6.2 Adjacent Properties

The area surrounding the proposed lease parcel is used primarily for residential and recreational purposes. Some parts remain undeveloped. East of the site is the former location of one of the two Fort Devens hospitals. A study of the former hospital site was conducted to determine if demolition debris had been landfilled in the area. The area under investigation was identified as Study Area (SA) 10. Investigations determined that the area contains no demolition debris and a no further action decision was approved. A Decision Document was issued in January 1995 and the area is now identified as CERFA clean. There was no visible evidence of the historical landfilling operations during Horne Engineering's September 1994 site inspection.

7.0 Hazardous Substances and Petroleum Products Management Practices and Potential Impacts

7.1 Proposed Lease Parcel

There are no current or obvious historical practices of storing or managing hazardous substances or petroleum products within the proposed lease area. Due to the fact that the area contains no building structures, asbestos, lead-based paint, and radon are not subjects of concern. There is no indication that PCBs have been stored or spilled on the proposed lease parcel and there are no underground storage tanks (USTs) in the area.

The USAEC is currently conducting a unexploded ordnance (UXO) survey throughout the Main and North Posts. Preliminary archival investigations identified 26 sites within the Main and North Posts that were potentially contaminated with UXO. One of the twenty-six sites identified included the proposed lease parcel and its surrounding areas. The site, identified as site No. 15, Area No. 2, was found not to contain UXO and therefore, is no longer a potential UXO site (Fort Devens, 1995).

7.2 Adjacent Properties

The area surrounding the proposed lease parcel is currently undeveloped, recreational, or residential. The property to the south, SA 10, was originally considered a disqualified parcel and is now CERFA clean. The eastern adjacent property previously contained a Fort Devens hospital known as Hospital North. The hospital was demolished during the 1950s. SA 10 was investigated for demolition debris that was reportedly landfilled on the former hospital site. The site investigation took place northwest of the Nashua River and east of Perimeter Road. A CERCLA investigation was performed and construction debris was not identified in the area. A no further action decision document was issued in January 1995 (Arthur D. Little, 1995). Therefore, the area that was originally identified as SA 10 is now classified as CERFA clean.

A 1,000-gallon fuel oil UST exists at Building 952. Building 952 is located east of the Shirley Housing Area, across Perimeter Road. The tank is located east of Perimeter Road between the road and the Nashua River. It is the only UST in the surrounding area and the Fort Devens Environmental Management Office intends to remove the tank in 1997. Building 952 is, at a minimum, 500 feet from the Shirley

Parcel, and, therefore, will have a minimal, if any, impact on the Shirley Parcel. Ground water flow is southeast toward the Nashua River, away from the parcel. Storm Sewer System 29 is adjacent to the Shirley property, located on the eastern boundary and within the Shirley Housing Area. The storm system was determined to require no further action.

8.0 Relevant Information From Records Review, Interviews, and Aerial Photographs Review

A detailed records review and consideration of the aerial photograph review were conducted as part of the CERFA report. No new areas of concern were identified either within the proposed lease parcel or in adjacent areas as a result of the information review. Any new information obtained from the records review is contained in Section 7.0 of this report.

9.0 Ongoing Response Actions

There are no ongoing response actions within the proposed lease parcel. Investigations concerning SA 10, a historical construction debris landfill study, were completed and a no further action decision document was developed in January 1995. There are no other ongoing response actions on the properties adjacent to the proposed lease parcel.

10.0 Recommendation as to Suitability to Lease

Based on the inspection and records review of the proposed lease parcel and adjacent areas and a review of the anticipated activities within the proposed lease parcel, it is recommended that the parcel be found suitable for lease. The anticipated activities include municipal/government offices, a town hall, a police department, and a highway department maintenance garage for the town of Shirley.

11.0 References

Argonne National Laboratory. 1992. *Final Master Environmental Plan for Fort Devens, Massachusetts*. April.

Arthur D. Little, Inc. 1993. *Draft Maintenance and Waste Accumulation Areas (AREE 61) Report, Fort Devens, Massachusetts*. November.

Arthur D. Little, Inc. 1993. *Draft Past Spill Sites Report (AREE 69) BRAC EE, Fort Devens, Massachusetts*. October.

Arthur D. Little, Inc. 1993. *Draft Previously Removed Underground Storage Tanks (AREE 63), BRAC EE*. November.

Arthur D. Little, Inc. 1993. *Draft Transformer Study Report (AREE 66), Fort Devens, Massachusetts*. November.

Arthur D. Little, Inc. 1993. *Draft Underground Storage Tanks (AREE 63), Memorandum Work Plan, Fort Devens, Massachusetts*. October.

Arthur D. Little, Inc. 1993. *Final Supplemental Work Plan, Main Post Site Investigation*. April.

Arthur D. Little, Inc. 1993. *Site Investigation Report*. December.

Arthur D. Little, Inc. 1994. *Community Environmental Response Facilitation Act (CERFA) Report, Fort Devens, Massachusetts*. April.

Arthur D. Little, Inc. 1994. *Draft Radon Survey (AREE 67), Base Realignment and Closure Environmental Evaluation, Part II, Fort Devens, Massachusetts*. July.

Arthur D. Little, Inc. 1994. *Final Storm Sewer Evaluation (AREE 70) Report, BRAC EE, Volume I and II of II*. June.

Arthur D. Little, Inc. 1995. *No Further Action Decision Under CERCLA, Study Area 10: Construction Debris Area*. January.

Chambers, James C., BRAC Environmental Coordinator. 1994. *Environmental Restoration Superfund Update*. July.

Environmental Monitoring Systems. 1991. *Installation Assessment Fort Devens (EPA) Volume I*. September.

Fort Devens EMO. 1994. *AREE 62, UST Data*. May.

HUB Testing Laboratories. 1992. *Draft Fort Devens Asbestos Material Survey Analysis and Assessment*. April.

Kohn, Judy. 1995. Fort Devens Reuse Office. February.

Kurz Associates, Inc. 1991. *Underground Storage Tank Removal and Related Environmental Investigations, Fort Devens Military Reservations, Harvard, Massachusetts*. January.

Louis Berger and Associates. 1993. *EA and FONSI*. October.

Roy F. Weston, Inc. 1992. *Final Delivery Order 9, Enhanced Preliminary Assessment*. April.

Roy F. Weston. 1994. *Enhanced Preliminary Assessment Fort Devens Massachusetts*. April.

SEA Consultants. 1994. *Draft Report for the Phase I Non-Residential Floor Drain Evaluation Study*. February.

The Earth Technology Corporation. 1994. *Final Base Realignment and Closure Plan*. April.

U.S. Army Environmental Center. 1991. *Installation Assessment, Fort Devens, Ayer, Massachusetts*. Prepared by Environmental Photographic Interpretation Center, Environmental Monitoring Systems Laboratory, Warrenton, VA. Submitted to Office of Research and Development, U.S. Environmental Protection Agency, Las Vegas, Nevada. September.

U.S. Army Environmental Center. 1994. *Environmental Baseline Survey - Proposed Permit for the Cutler Army Hospital Building and Building 1677*. July.

Finding of Suitability to Lease (FOSL)

Fort Devens
(Proposed Shirley Lease Parcel)

Fort Devens, Massachusetts

November 1995

1.0 Purpose and Finding

a. The purpose of this FOSL is to document a decision made pursuant to Department of Defense (DoD) FOSL Guidance that property is suitable to lease.

b. Based on results detailed in the Environmental Baseline Survey (EBS), I have determined that the Proposed Shirley Lease Parcel is suitable for lease to the Massachusetts Government Landbank who, in turn, intends to sublease the property to the town of Shirley. The town of Shirley plans on constructing a town hall, a police station, and a municipal highway maintenance garage on the parcel. The lease is for a period of 30 years.

2.0 Property Description

The lease parcel consists of approximately 9.2 acres and is located in the northwestern corner of the Main Post at Fort Devens. The parcel primarily consists of open grasslands with small paved areas visible among the vegetation. The parcel is located west of Perimeter Road and just south of the Shirley Gate. The boundaries consist of the property fence/line to the north, with West Main Street on the other side of the fence/line, Perimeter Road to the east, open grasslands to the south, the Shirley Housing Area to the southeast, and the property fence/line to the west.

3.0 Environmental Condition of Property

An analysis of the environmental condition of the site proposed for lease has been made by the U.S. Army Environmental Center in the form of an EBS for the Proposed Shirley Lease Parcel. The EBS was conducted in accordance with the requirements of the DoD FOSL guidance for conducting an EBS.

The proposed parcel contains no structures which eliminates asbestos, lead-based paint, and radon as potential concerns. Documentation indicated that underground storage tanks, polychlorinated biphenyls, or hazardous contaminants were never stored, or released in the proposed parcel. The proposed parcel has no UXO contamination.

Finding of Suitability to Lease (FOSL)

Fort Devens
(Proposed Shirley Lease Parcel)

As a result of no contamination found at the proposed lease parcel, the lease parcel is suitable for lease for its intended purpose because no hazardous substances or petroleum products were stored for one year of more, or known to have been released, treated, or disposed of on the parcel.

Storage or release on adjacent property is unlikely to impact the lease parcel and poses no unacceptable risk to human health of the environment. The adjacent area just east of the proposed lease parcel was identified as Study Area 10, a historical landfill location that encompassed the historical Fort Devens hospital, Hospital North. The actual area that underwent historical landfill investigations was located just northwest of the Nashua River, which is northeast of the proposed lease parcel. Following investigations, which did not identify historical landfill locations, Study Area 10 was recommended for no further action.

3.1 Regulatory Comment

Regulatory agencies were notified at the initiation of the EBS and FOSL. Regulatory comments received during the development of these documents were reviewed and incorporated, as appropriate.

3.2 Lease Provisions

a. Provisions will be included in the lease to ensure that the requirements of Section IV (E) and (G) of the DoD FOSL policy are met.

b. The model lease provisions attached to the DoD FOSL policy will be included in the lease.

c. A notice is not required for the potential of asbestos, lead-based paint, or radon within the lease parcel because buildings do not exist within the proposed parcel.

d. The Army shall have access to the property in any case in which a response or corrective action or corrective action is found to be necessary after the date of property lease, or such access is necessary to carry out a response action or corrective action on adjacent property.

e. When the property is transferred, it will be transferred in accordance with Section 37 of the Fort Devens Federal Facility Agreement.

Fort Devens
(Proposed Shirley Lease Parcel)

4.0 Conclusion

Based on the above information, I conclude that the DoD's requirements to reach a FOSL have been met and, therefore, the Proposed Shirley Lease Parcel can be used by the Massachusetts Government Landbank pursuant to the proposed lease. The Comprehensive Environmental Response, Compensation, and Liability Act 120(h)(1) notice requirements and the lease restrictions discussed above must be placed within the lease.

Arthur T. Dean
Major General, USA
Deputy Chief of Staff for Personnel
and Installation Management

Comment and Response Package

U.S. Environmental Protection Agency (USEPA) New England Division Comments and Massachusetts Department of Environmental Protection (MADEP) Comments on the Draft Environmental Baseline Survey, Proposed Shirley Lease Parcel

Submitted to Fort Devens Base Realignment and Closure Division, Environmental Management Office

Prepared for:

U.S. ARMY ENVIRONMENTAL CENTER
ABERDEEN PROVING GROUND, MARYLAND 21010

Requests for this document must be referred to:
Commander, U.S. Army Environmental Center
Aberdeen Proving Ground, Maryland 21010

February 1996

Response to USEPA New England Division Comments
Draft Environmental Baseline Survey, Proposed Shirley Lease Parcel

This Comment Response Package was prepared by Arthur D. Little on behalf of the U.S. Army Environmental Center, to address USEPA, USACE NED, and MADEP comments on the Draft EBS prepared by Horne Engineering Services, Inc.

General Comments

Comment

1. In general the quality of the maps/figures were poor, lacked sufficient detail and did not yield much useful or accurate information. I would suggest more detailed maps be drawn that include the following information: exact boundaries of the parcels, any CERCLA, BRAC, or compliance sites within the parcels, adjacent CERCLA, BRAC, and compliance sites, and the CERFA designation(s) that the parcels are. All this information should be readily available on the Fort Devens Geographic Information System (GIS).

Response

1. The figure included in the EBS has been updated to illustrate property boundaries.

Comment

2. Overall, it seemed that final decisions regarding such parcel specific information as exact acreage and boundaries, numbers, uses, and dispositions of buildings, and dates that you expect these leases/transfers to occur were not available to the contractor when the EBS inspections were made.

   Additionally, information regarding hazardous material/petroleum storage management practices, results of AREE studies (e.g., stormwater) and the status of removal actions and compliance actions were not available for the contractor to consider at the time of inspection. This makes assessments of the parcels suitability for lease or transfer difficult. When will this information be available? Will we get to review it before these go final? Let's discuss this at your earliest convenience.

Response

2. All final decisions known at the time of the EBS publication regarding the Shirley Parcel have been updated and included in the EBS. The parcel consists of 9.2 acres, located west of Perimeter Road and just south of the Shirley Gate. The Massachusetts Government Land Bank intends on subleasing the property to the Town of Shirley.

Comment

3. It was evident from the EBSs that the contractor performing the inspections either didn't get the cooperation and support from Fort Devens needed to complete these documents or didn't spend enough time on-site to gather the supporting information needed. As mentioned above, much of the information that was "not available" at the time of the inspections and writing of these documents will be critical information for the Army, regulatory agencies,and the lessees in determining suitability for lease or transfer. Please see #'s 1 and 2 above.

Response

3. The final EBS has been updated to include all available information.

Specific Comments

Comment

1. **Section 3.0 FOST: a.** How many acres will be transferred? **b.** The FOST does not clearly indicate what property is to be transferred, i.e., which parcels or portions of parcels (this section refers to it as "the property to be transferred").

Response

1. a. The Shirley Parcel consists of 9.2 acres that will be leased to the Massachusetts Government Land Bank.

   b. The FOSL has been updated to describe the proposed lease parcel.

Comment

2. **Section 4.0 FOST**: **a.** You mention that "USAEC found no records or other documented evidence which indicated the presence, or likely presence, of a release or threatened release of a reportable quantity of hazardous substances/wastes or petroleum products." If so, then why are notices required? Please clarify. **b.** In the second paragraph, is this a transfer or a lease? Please clarify.

Response

2. a. The FOSL has been updated to state that a hazardous substance notice is not needed for the parcel.

   b. The parcel will be a lease.

Comment

3. **ES-1**: **a.** How many acres will be transferred? Which parcels will be transferred? It appears from the Executive Summary that all of 187 and part of 186 will be transferred, but later § 6(b), p.4), parcel 6 is referred to as adjacent property. **b.** Where are the Shirley housing units? It is not clear from the ES if they are to be transferred. **c.** See comment #2a. If this is so, why is Parcel 187 qualified and Parcel 6 disqualified under CERFA? Please clarify the reasons for these CERFA designations. Additionally, more detail will be needed on the petroleum tanks to justify this statement. **d.** Perhaps Parcel 6 should be divided in to two parcels—6 and 6A, with 6A being the part to be transferred to Shirley. **e.** The DoD guidance referenced in the first paragraph should be attached as an Appendix to the EBS.

Response

3. a. Approximately 9.2 acres will be leased. An updated figure has been included in the Final EBS.

   b. Figure 1 indicates the location of the Shirley Housing Area. The Housing Area is not included in the lease.

   c. The entire area including the parcel is now classified as CERFA clean.

   d. Parcel 6 is now considered CERFA clean.

   e. The DoD guidance is mentioned in the FOSL and will be included in the lease.

Comment

4. **1.0**: See comment #'s 1 and 3a.

Response

4. Approximately 9.2 acres will be leased.

Comment

5. **Page 2**: The Map provided here does not fully delineate the area subject to transfer. See General Comment #1.

Response

5. The figure has been updated in the Final EBS.

Comment

6. **Page 3, Section 3.0, g.**: The "potential sources of contamination" need to be identified. Please provide the references mentioned in this subsection.

Response

6. Potential sources of contamination are identified in Section 7.0.

Comment

7. **Page 4, Section 6.0, b.**: SA 10 has already been investigated and was recently approved by the Base Closure Team as a "No Further Action Under CERCLA" site. The Decision document was signed on January 18, 1995. Please update and correct the information presented in this subsection.

Response

7. The Final EBS has been updated.

Comment

8. **Page 4, Section 7.0, f.**: Were the records regarding the USTs inspected? If so, they should be referenced in this subsection, rather than relying on "visible evidence."

Response

8. The 33 USTs mentioned were actually located near Hospital South and not Hospital North. The only UST still present in the vicinity is at Building 952 and it is located between Perimeter Road and the Nashua River.

Response to MADEP Comments
Draft Environmental Baseline Survey, Shirley Parcel

General Comments

The following comments (6-13) were made by D. Lynne Welsh, Section Chief, Federal Facilities, CERO, in a memorandum dated 12 December 1994. This Comment Response Package was performed by Horne Engineering on behalf of the U.S. Army Environmental Center.

Comment

6. The CERFA map provided in this report does not delineate the area subject to transfer. The description of the area to be transferred is vague. Without a presentation of the approximate property boundaries involved in the transfer,a specific review of that area is not possible.

Response

6. A survey of the property was obtained from the town of Shirley, and incorporated into the report as an appendix. Figure 1 was modified to more adequately reflect the parcel under review.

Comment

7. The text states that the property to be transferred is within CERFA parcels #6, and #187. However, it must be clarified as to whether part of it is in CERFA parcel #8 because the report text describes the southern portion of the transfer boundary to be Building 930 which is in CERFA parcel #8.

Response

7. The revised EBS contains a modified Figure 1 and description of the property to be transferred, indicating that the property is not within CERFA parcel #8.

Comment

8. The final EBS must accurately describe and illustrate the property that is the basis of the report. for the sake of reviewing this draft Environmental Baseline Survey (EBS), the entire area within CERFA parcels #6, #8, and #187 was considered.

Response

8. See responses to comments 6 and 7, above.

Comment

9. As referenced, parcel #6 includes study area (SA) 10. More discussion of SA 10 is suggested. At a minimum, the EBS should reference the documents that contain information on SA 10. The EBS should include a map showing the boundaries of SA 10 and the areas where geophysical investigation, test pits, and sampling were conducted. Such a map is included in the Final Main Post Site Investigation (SI). The MADEP's version of this map is enclosed.

Response

9. A portion of the property to be leased is located in parcel #6, but not in the area of SA 10. Comments on SA 10 were incorporated into the revised EBS.

Comment

10. Discussion of historical and current fuel oil tanks associated with building heating should be discussed to support the comment (P. ES-1) that "hazardous waste substance notice need not be given because petroleum products have not been stored for one year or more, and are not known to have been release [sic], treated, or disposed on the proposed transfer parcel." It is suggested that reference be made to the status of the tanks for each building associated with or adjacent to the proposed transfer.

Response

10. There are no USTs within the property under review. There are USTs on adjacent/nearby properties. There is a 1,000-gallon fuel oil UST at Building 952. According to the BRAC Office, this tank is scheduled for removal in 1997. There were also 33 heating oil USTs located at the Shirley Housing Area. These tanks were removed during the months of October and November, 1994. Closure reports were submitted and approved during October 1994 through January 1995. The USTs at Building 952 and the Shirley Housing Area are at a distance of at least 500 feet from the Shirley Parcel under review. The EBS was revised to reflect the above.

Comment

11. The investigation at SA 10 was initiated due to Army records and interviews indicating that the construction debris from a hospital demolished on the site was buried at the site. However, no solid waste was found. The original investigation for solid waste was narrowed down from an 80-acre to a 10-acre area after historical aerial photographs were reviewed and visual reconnaissance was conducted. The 10-acre area was subject to a geophysical survey in which no anomalies were found. Regardless of the geophysical findings, three test pits were dug. No solid waste was observed in the test pits.

Chemical analysis of soils collected from the test pits indicated no risk to human health according to the Main Post Site Investigation. Based on this Army information, MADEP concurred with the Army's recommendation for no further action (NFA) at SA 10 in June 1994.

Response

11. See response to comment number 9, above.

Comment

12. An area within CERFA parcel #6 that does not have resolution is designated as a study area from EPIC Photograph B-Feature C, or SA BC. This area is not mentioned in the EBS. This area is a disturbed clearing west of the Nashua River, east of Building 953/954 and north of Hospital Road that was identified as a possible waste disposal area. This area was going to be included in the SA 10 investigation for the Main Post, but the Final Main Post SI does not contain any documentation of SA BC.

Response

12. The above mentioned area is not within the proposed lease parcel and is, therefore, not mentioned in the EBS. It should be noted that based on visual inspections performed during the Main Post Site Investigation, the above mentioned area was determined as not requiring further investigation and was therefore, never formally included in SA 10.

Comment

13. Another area may have been the area of deposition for demolition debris. The Final Main Post SI discusses the possibility that the demolition debris "was disposed along a utility right-of-way along the eastern side of the Nashua River between Hospital road and Grant Road." MADEP does not have any maps marked with Grant Road, so it is not certain whether this area would lie within CERFA parcel 6, 8, or 187. Because of this geographical uncertainty and since no response is in MADEP files regarding comments to the Final Main Post SI, it would be noted that the status of this area is unresolved.

Response

13. The above mentioned debris area is not within the proposed lease parcel. The area mentioned is along the utility right-of-way on the eastern side of the Nashua River. Based on visual inspections performed during the Main Post Site Investigation, the area was not included in SA 10 because the debris was limited to concrete blocks. This comment is responded to in the Response to Comments document for the Final Main Post SI dated June 1995. The comment/response was No. 18.

Final

Environmental Baseline Survey for Proposed Lease Parcel Robbins Pond Parcel Including Fraunhofer Parcel

Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts

Prepared for:

U.S. ARMY ENVIRONMENTAL CENTER
ABERDEEN PROVING GROUND, MARYLAND 21010

Prepared by:

ARTHUR D. LITTLE, INC.
25 Acorn Park
Cambridge, Massachusetts 02140-2390

Requests for this document must be referred to:
Commander, U.S. Army Environmental Center
Aberdeen Proving Ground, Maryland 21010

DECEMBER 1995

Final

Environmental Baseline Survey for Proposed Lease Parcel Robbins Pond Parcel Including Fraunhofer Parcel

Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, MA

Program Manager, Robert Lambe — Date: 12-21-95

Task Manager, Richard Waterman — Date: 12/21/95

Submitted to

U.S. Army Environmental Center (USAEC)
Aberdeen Proving Ground, Maryland

Revision 2
December 1995

Arthur D. Little, Inc.
Acorn Park
Cambridge, Massachusetts
02140-2390

ADL Reference 67073-21

DAAA15-91-D-0016
Delivery Order 0013

This document is printed on recycled paper and is recyclable.

Table of Contents

Acronyms and Abbreviations iii

Executive Summary iv

1.0 Introduction 1-1

2.0 Site Description 2-1
2.1 Proposed Robbins Pond Lease Parcel 2-1
2.2 Proposed Fraunhofer Lease Parcel 2-3
2.3 Property Adjacent to Robbins Pond and Fraunhofer Lease Parcels .. 2-3

3.0 Survey Methodology 3-1
3.1 Review of the Community Environmental Response Facilitation Act 3-1
3.2 Records Search - Lease Parcels 3-3
3.2.1 Robbins Pond Lease Parcel 3-3
3.2.2 Fraunhofer Lease Parcel 3-4
3.3 Records Search - Adjacent Properties 3-4
3.5 Interviews 3-5
3.6 Visual Inspections 3-5
3.7 Identification of Sources of Contamination on Adjacent Properties .. 3-5
3.7.1 Robbins Pond Lease Parcel 3-5
3.7.2 Fraunhofer Lease Parcel 3-6
3.7.3 Properties Adjacent to Robbins Pond and Fraunhofer Lease Parcels 3-6
3.8 Ongoing Response Actions 3-6
3.9 Physical Inspections - Adjacent Properties 3-7
3.10 Sampling 3-7

4.0 Relevant Information Gained During Records Search 4-1

5.0 Title Search 5-1

6.0 Description of Activities 6-1
6.1 Proposed Lease Parcels 6-1
6.1.1 Proposed Robbins Pond Lease Parcel 6-1
6.1.3 Proposed Fraunhofer Lease Parcel 6-1
6.2 Adjacent Properties 6-1

7.0 Hazardous Substances and Petroleum Products Management Practices and Potential Impacts 7-1
7.1 Proposed Lease Parcels 7-1
7.1.1 Robbins Pond Lease Parcel 7-1
7.1.1.1 AREE 61AQ / SA 43B 7-1
7.1.1.2 AREE 61F / SA 43C 7-1
7.1.1.3 AREE 65, Asbestos 7-2
7.1.1.4 AREE 68, Lead-Based Paint 7-3
7.1.1.5 Existing Underground Storage Tanks 7-3
7.1.1.6 Radiation 7-3
7.1.1.7 Unexploded Ordnance 7-3
7.1.2 Proposed Fraunhofer Lease Parcel 7-3
7.2 Adjacent Properties 7-3
7.2.1 AREE 61AR / SA 43D 7-3
7.2.2 AREE 61AI 7-4
7.2.3 AREE 61BF 7-5
7.2.4 AREE 70, Systems 20A and 20B 7-5
7.2.5 AREE 70, System 40 7-6
7.2.6 Unexploded Ordnance 7-6

8.0 Relevant Information From Records Review, Interviews, and Aerial Photographs Review 8-1

9.0 Ongoing Response Actions 9-1

10.0 Recommendation as to Suitability to Lease 10-1

11.0 Selected References 11-1

12.0 Selected Map and Photograph References 12-1

List of Figures

Figure 1: Proposed Robbins Pond and Fraunhofer Lease Parcels 2-5

Acronyms and Abbreviations

ACM	Asbestos-Containing Material
AOC	Area of Contamination
AREE	Area Requiring Environmental Evaluation
BRAC EE	Base Realignment and Closure Environmental Evaluation
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERFA	Community Environmental Response Facilitation Act
CHHPM	United States Army Center for Health Promotion and Preventive Medicine
DoD	Department of Defense
DOL	Directorate of Logistics
EBS	Environmental Baseline Survey
EPIC	Environmental Photographic Interpretation Center
EWD	Electronic Warfare Division
FOSL	Finding of Suitability to Lease
IAG	Interagency Agreement
Landbank	Massachusetts Government Landbank
LBP	Lead-based Paint
MMD	Medical Maintenance Division
PCB	Polychlorinated Biphenyl
SA	Study Areas
SI	Site Investigation
SSI	Supplemental Site Investigation
TPHC	Total Petroleum Hydrocarbons
UIS	Underground Injection System
USACE	United States Army Corps of Engineers
UST	Underground Storage Tank
UXO	Unexploded Ordnance

Executive Summary

An Environmental Baseline Survey (EBS) was undertaken to make a determination of the suitability to lease the Robbins Pond parcel, which includes the Fraunhofer parcel, at Fort Devens to the Massachusetts Government Landbank. The Fraunhofer parcel is a section of the Robbins Pond lease parcel and is being considered for lease by the Massachusetts Government Landbank to a German engineering company, known as Fraunhofer USA. The combined parcels comprise a 16-acre site located in the central region of the Main Post, northwest of Robbins Pond. The Robbins Pond parcel consists of 12.5 acres and the Franhofer parcel consists of 3.5 acres. The Robbins Pond lease is for 25 years and the Fraunhofer lease is for 5 years.

The EBS followed protocols outlined in the current Department of Defense (DoD) Guidance on the Environmental Review Process for lease actions at Base Realignment and Closure (BRAC) Installations. This process includes a records review of aerial photographs, and a physical inspection of the proposed lease properties and adjacent properties. Sampling activities have occurred within the proposed lease parcel and adjacent properties for various Base Realignment and Closure Environmental Evaluation (BRAC EE) and Comprehensive Environmental Response Compensation and Liability Act (CERCLA) studies.

The Robbins Pond lease parcel currently contains 17 temporary buildings located between Patch Road, Queenstown Street, Dakota Street, and Access Road (see Figure 1). Potential environmental concerns identified on the lease parcel include historical gas stations and motor pool sites, a general maintenance area, an electronic equipment training area, and underground storage tanks (USTs). Asbestos, lead-based paint (LBP), radon, and radiation are also potential environmental contaminants in the Robbins Pond lease parcel. During the asbestos survey, inspectors identified a number of asbestos-containing materials (ACM) including breech or stack insulation, boiler section gaskets, boiler insulation, magnesia/calciform piping, wall plaster, low-temperature tank insulation, vinyl floor tile, and floor tile mastic. None of the buildings on the lease parcel were sampled for LBP. The buildings within the proposed lease parcel were constructed in 1941 and, therefore, have the potential to contain LBP. A number of buildings within the parcel were tested for radon. None of the radon levels exceeded the U.S. Environmental Protection Agency's annual average action level. Building 3549, a building within the proposed lease parcel, was identified through an archival document search as potentially being contaminated with radiation. A radiation study has not yet been completed on the building.

According to the Community Environmental Response Facilitation Act (CERFA), a majority of the proposed lease parcel is classified as CERFA-qualified. The Robbins Pond lease parcel falls within CERFA Parcels 108, 109, 110, 111, 112, and 201. Parcels 112 and 201 are CERFA-clean parcels, while parcels 109 and 110 are

CERFA-qualified Parcels. Parcels 108 and 111 are CERFA-disqualified because there were petroleum releases, petroleum storage, and CERCLA hazardous substances stored on an area of the parcel. In addition, buildings within the proposed Robbins Pond lease parcel contains asbestos and potentially contain LBP.

Based upon the above factors, the proposed lease parcel is recommended for classification as a suitable to lease. In accordance with DoD guidance, a hazardous substance notice is needed because petroleum products were stored for a year or more, or known to have been released, leased, or disposed of on the proposed lease parcel. This hazardous waste notice should be issued due to three historic 5,000-gallon fuel oil USTs removed from historical gas stations located at former Buildings 169 and 170, and three existing 1,000-gallon No. 2 fuel oil USTs at Buildings 3546, 3548, and 3549. A hazardous substance notice should also be issued for the previous satellite hazardous waste accumulation area at Building 3541. A notice should be issued for the presence of asbestos and the potential presence of LBP and radiation within the proposed lease parcels.

1.0 Introduction

An Environmental Baseline Survey (EBS) was undertaken to make a determination of the suitability to lease the Robbins Pond and Fraunhofer parcels at Fort Devens to the Massachusetts Government Landbank (Landbank) for a period of 25 and 5 years, respectively. The Fraunhofer parcel will be subleased to Fraunhofer USA, a German engineering company. The 3.5-acre Fraunhofer site is located in the northeastern corner of the Robbins Pond parcel. From this point on, the Fraunhofer site will be referred to as the Fraunhofer lease parcel and will be discussed separately from the Robbins Pond lease parcel in order to distinguish the potential sources of environmental contamination associated with each parcel.

2.0 Site Description

2.1 Proposed Robbins Pond Lease Parcel

The proposed lease parcel includes land located between Queenstown Street, Patch Road, Dakota Street, and Access Road I. The parcel does not include a square parcel of land in the northeastern corner that functions as athletic fields. The property line parallels Patch Road, between Access Road II and Dakota Street, along the end of Pony League field.

Buildings within the Robbins Pond lease parcel include 3526, 3527, 3528, 3533, 3534, 3535, 3536, 3538, 3541, 3543, 3545, 3546, 3547, 3548, 3549, 3550, and 3551. These buildings were constructed in 1941, during World War II. Most of the buildings were utilized as barracks, mess halls, administration, or warehouses. Each building is listed in the table below identifying the building's function and heat source.

Building No.	Function	Heating Source
3526	Barrack	Coal 1941-1965, Gas 1966 - present
3527	Barrack	Coal 1941-1965, Gas 1966 - present
3528	Barrack	Coal 1941-1965, Gas 1966 - present
3533	Barrack	Coal 1941-1965, Gas 1966 - present
3534	Barrack	Coal 1941-1965, Gas 1966 - present
3535	Barrack	Coal 1941-1965, Gas 1966 - present
3536	Barrack	Coal 1941-1965, Gas 1966 - present
3538	Barrack	Coal 1941-1965, Gas 1966 - present
3541	Hazardous Waste Storage	No heat
3543	Barrack	Coal 1941-1965, Gas 1966 - present
3545	Recreation	Coal 1941-1965, Gas 1966 - 1995
3546	Recreation Vehicle Maintenance	No. 2 Fuel Oil UST
3547	Motor Repair Shop	Coal 1941, No heat 1995
3548	Motor Repair Shop	No. 2 Fuel Oil UST
3549	Motor Repair Shop	No. 2 Fuel Oil UST
3550	Administrative Office for Army Supply Post	Coal 1941, 1995
3551	Infirmary/Applied Instruction	Gas

Historically, the Robbins Pond lease parcel consisted of numerous wooden buildings. The buildings occupying this parcel between 1941 and the late 1960s are listed below (Installation Assessment map, 1991).

Building No.	Designation
170	Gas Station
3503	Barrack
3504	Barrack
3505	Barrack
3506	Day Room
3507	Mess Hall
3518	Mess Hall
3519	Day Room and Company Administration
3520	Barrack
3521	Barrack
3522	Barrack
3526	Barrack
3527	Barrack
3528	Barrack
3529	Day Room and Company Administration
3532	Day Room and Company Administration
3533	Barrack
3534	Barrack
3535	Barrack
3536	Barrack
3537	Barrack
3538	Barrack
3539	Day Room and Company Administration
3542	Day Room and Company Administration
3543	Barrack
3545	Recreation
3546	Post Exchange
3547	Motor Repair
3548	Motor Repair
3549	Motor Repair
3550	Guard House
3551	Infirmary
4158	Chemical Storage Warehouse

2.2 Proposed Fraunhofer Lease Parcel

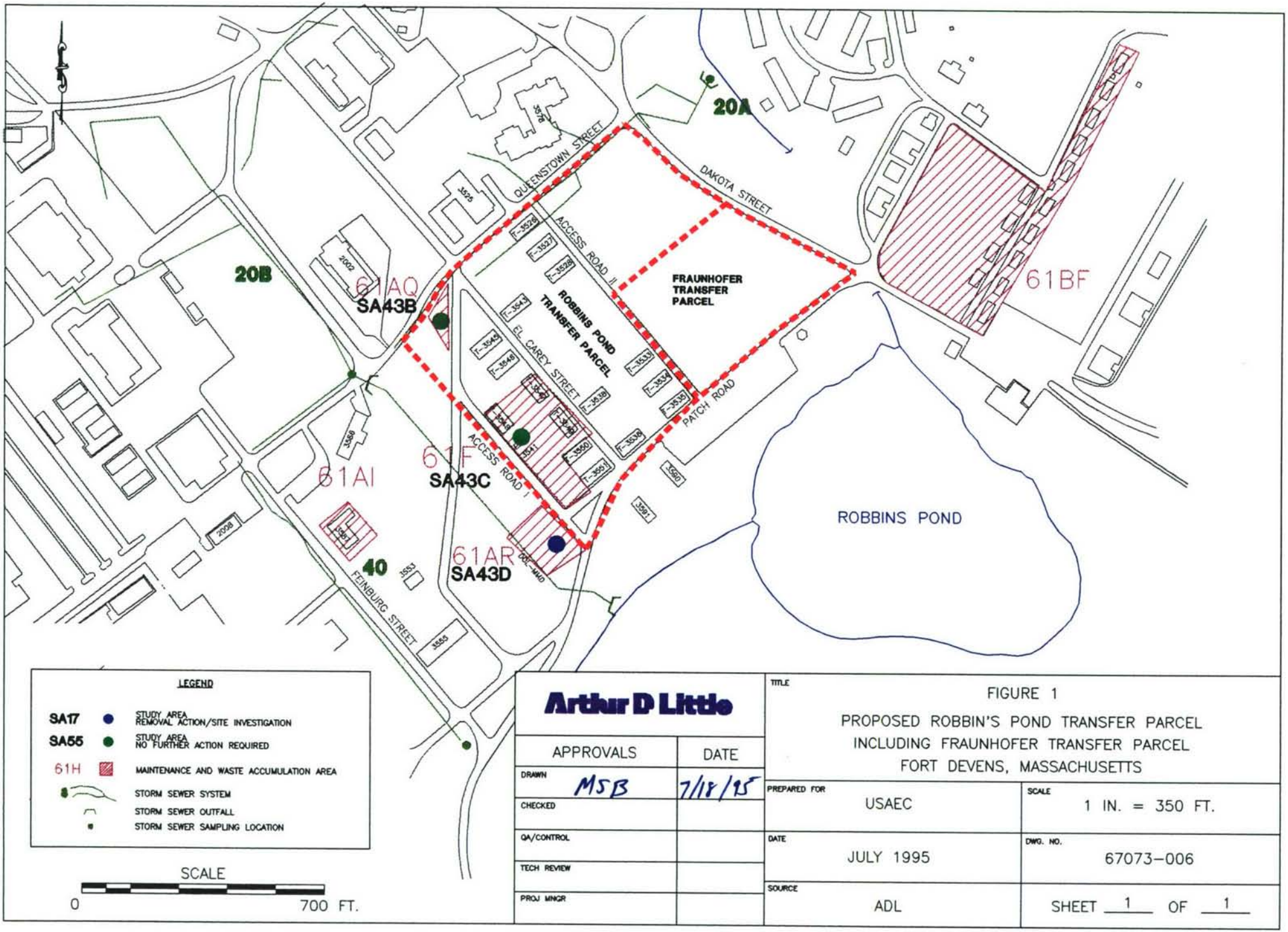
The proposed Fraunhofer lease parcel is a 3.5-acre section of the athletic fields located on the corner of Dakota Street and Patch Road. The parcel extends parallel to Patch Road, about 400 feet from the road. The southern border of the property is Access Road II. Currently, there are no buildings on this parcel of land. In 1941, wooden buildings were constructed in the area (Directorate of Engineering and Housing, 1954). They include:

Building No.	Designation
3508	Mess Hall
3509	Day Room and Company Administration
3510	Barrack
3511	Barrack
3512	Barrack
3513	Barrack
3514	Barrack
3515	Barrack
3516	Day Room and Company Administration
3517	Mess Hall

2.3 Property Adjacent to Robbins Pond and Fraunhofer Lease Parcels

The Robbins Pond lease parcel is on the opposite side of Patch Road west of Robbins Pond, a recreational area. The Directorate of Logistics/Material Maintenance Division (DOL/MMD) intermittent equipment storage area is south of the Robbins Road parcel. The DOL/MMD area is the site of Area Requiring Environmental Evaluation (AREE) 61AR and Study Area (SA) 43D, a historical gas station. The Robbins Pond parcel is west of the Guest House, Building 2002; Auto Hobby Shop, Building 3587; Craft Shop, Building 3586; Stables, Buildings 3553 and 3555; and the former Army/Air Force Exchange Service's (AAFES) Gas Station, Building 2008. Open fields exist directly across from Dakota Street and further northeast approximately 400 feet from Dakota Street is residential housing. To the northwest of the parcel are storage and administrative buildings and a Daycare Center, Building 3578.

The Fraunhofer lease parcel is approximately 400 feet northwest of Robbins Pond and located within the Robbins Pond parcel. The property directly adjacent and northeast of the Fraunhofer parcel, is currently the Pony League baseball field. On the opposite side of Dakota Street, north of the Fraunhofer parcel, are World War II-era brick buildings formerly occupied by the U.S. Army Intelligence School.



Arthur D Little

APPROVALS	DATE
DRAWN MSB	7/18/95
CHECKED	
QA/CONTROL	
TECH REVIEW	
PROJ MNGR	

TITLE

FIGURE 1

PROPOSED ROBBIN'S POND TRANSFER PARCEL
INCLUDING FRAUNHOFER TRANSFER PARCEL
FORT DEVENS, MASSACHUSETTS

PREPARED FOR: USAEC	SCALE: 1 IN. = 350 FT.
DATE: JULY 1995	DWG. NO.: 67073-006
SOURCE: ADL	SHEET 1 OF 1

p67073TEPS.EBS_Surv.bu_robbins.txt.07/18/95

3.0 Survey Methodology

This EBS was conducted in accordance with Department of Defense (DoD) guidance and consisted of the following:

3.1 Review of the Community Environmental Response Facilitation Act

The Final CERFA Report (Arthur D. Little, 1994a) was reviewed as part of the EBS. CERFA-identified property on Fort Devens is property that offers the greatest opportunity for immediate reuse and development. As part of the CERFA process, property where no CERCLA-regulated hazardous substance or petroleum products were stored, released, or disposed of was identified. Other non-CERCLA-regulated hazardous materials that were identified include asbestos, radon, polychlorinated biphenyls (PCBs), and LBP. At the close of the evaluation, four types of CERFA parcels were identified: a CERFA-clean parcel, a CERFA parcel with qualifier, a CERFA-disqualified parcel, and a CERFA-excluded parcel. These categories are defined as follows:

- CERFA-Clean Parcels: Areas of the facility that have no history of CERCLA-regulated hazardous substance or petroleum product release, disposal, or storage

- CERFA Parcels with Qualifiers: Areas of the facility that had no evidence of such release, disposal, or storage, but contained hazards substances such as asbestos, radon gas, LBP, UXO, radionuclides, or inactive PCB-containing equipment

- CERFA-Disqualified Parcels: Areas of the facility for which there is a history of release, disposal, or storage for one year or more of CERCLA-regulated hazardous substances or petroleum products

- CERFA-Excluded Parcels: Areas on the installation that have an existing mandate for retention by the federal government or have already been leased by deed

The Robbins Pond lease parcel contains parts of five CERFA parcels, parcels: 108, 109, 111, 112, and 201. The table below describes the parcel classification:

Parcel	CERFA Classification	Description of Environmental Contaminants in CERFA Parcel*
108	Disqualified	Historical Gas Station and Motor Pool (AREE 61F/SA 43C) Historical Motor Pool (AREE 61F) Historical Gas Station (AREE 61AQ / SA 43B) Bldg 3546 - 1,000-gallon UST Bldg 3548 - 1,000-gallon UST Bldg 3549 - 1,000-gallon UST
109	Qualified	Built before 1980 Potential asbestos, LBP, radon, PCBs
111	Disqualified	Petroleum products and potential asbestos, LBP, radon, PCBs
112	Clean	No history of CERCLA-regulated substances nor petroleum products
201	Clean	No history of CERCLA-regulated substances nor petroleum products

* As related to the lease parcel, if the CERFA parcel is larger than the lease parcel, only those contaminants within the lease parcel are listed.
UST = underground storage tank

Approximately one-third of the Robbins Pond lease parcel lies within a CERFA-disqualified parcel, however, a majority of the contaminants are located within CERFA Parcel 108, at the southern end of the parcel. This parcel has been disqualified primarily for the storage of petroleum products. Although CERFA parcel 111 is disqualified, a majority of the CERFA disqualified contamination does not fall within the proposed Robbins Pond lease parcel. Furthermore, all of the sites that underwent environmental investigations within the proposed Robbins Pond lease parcel were recommended for no further action (Arthur D. Little, 1994a).

Asbestos-containing materials identified in buildings within the Robbins Pond lease parcel includes magnesia/calciform breech or stack insulation, boiler section gaskets, magnesia/calciform boiler insulation, magnesia/calciform piping insulation, wall plaster, magnesia/calciform low-temperature tank insulation, vinyl floor tile, and associated mastic (Arthur D. Little, 1995a). In addition, there were materials not sampled, but assumed to contain asbestos, these included: duct joiner or antivibration material, roof sealant, vinyl floor tiles, and ceiling board. Buildings in the Robbins

Pond lease parcel were not tested for LBP, but due to the age of the buildings there is a potential for LBP (Arthur D. Little, 1995b).

The proposed Fraunhofer lease parcel is within a CERFA-clean parcel or a CERFA-qualified parcel. No buildings are located within the parcel. Ground water flow in the parcel area is from south to north along Robbins Pond.

3.2 Records Search - Lease Parcels

3.2.1 Robbins Pond Lease Parcel

The records search consisted of a review of all environmental reports pertaining to the proposed lease parcels. References are provided in Section 11.0. The records included:

- *Final Radon Survey Report (AREE 67)* (Arthur D. Little, 1995a)
- *Final Asbestos Survey Report (AREE 65)* (Arthur D. Little, 1995c)
- *Final Maintenance and Waste Accumulation Areas (AREE 61)* (Arthur D. Little, 1995d)
- *Final Storm Sewer Evaluation (AREE 70) Report* (Arthur D. Little, 1994b)
- *Final Previously Removed Underground Storage Tank (AREE 63) Draft Report* (Arthur D. Little, 1995e)
- *Fort Devens Underground Storage Tank Management Plan* (Fort Devens Environmental Management Office [EMO], 1994)
- *Fort Devens Site Investigation Report, Groups 2, 7, and Historical Gas Stations* (ABB Environmental Services, 1993b)
- *Site Investigation Data Packages for Groups 2, 7, and Historical Gas Stations, Data Item A009, Fort Devens, Mass.* (ABB Environmental Services, 1993a)
- *Community Environmental Response Facilitation Act (CERFA) Report, Fort Devens Facility, Fort Devens, Mass.* (Arthur D. Little, 1994a)
- *Non-Residential Floor Drain Evaluation Study, Volumes I and II, Fort Devens, Mass.* (SEA Consultants, 1994)
- *Historical Inventory Survey for Fort Devens, Mass.* (ENSR Consulting and Engineering, 1993)
- *Draft Environmental Impact Statement, Fort Devens, Mass., Disposal and Reuse* (ENSR Consulting and Engineering, 1994)
- *Draft No Further Action Decision Under CERCLA, Study Area 43C. Historical Gas Station Sites. Groups 2, 7, and Historical Gas Stations, Fort Devens, Mass.* (ABB Environmental Services, 1995)
- *Detailed Flow Model for Main and North Post, Fort Devens, Mass., Volumes I and II* (Engineering Technologies Associates, 1994)
- *Enhanced Preliminary Assessment, Fort Devens, Mass.* (Roy F. Weston, Inc., 1992)

- *Industrial Radiation Survey, Historical Data Review* (U.S. Army Center for Health Promotion and Preventative Medicine [CHPPM], 1994)
- *Ordnance Ammunition and Explosives Archives Search Report, Fort Devens, Mass.* (U.S. Army Corps of Engineers [USACE], 1995)

3.2.2 Fraunhofer Lease Parcel

Records for the Fraunhofer parcel include:

- *Community Environmental Response Facilitation Act (CERFA) Report, Fort Devens Facility, Fort Devens, Mass.* (Arthur D. Little, 1994a)
- *Historical Inventory Survey for Fort Devens, Mass.* (ENSR Consulting and Engineering, 1993)
- *Draft Environmental Impact Statement, Fort Devens, Mass., Disposal and Reuse* (ENSR Consulting and Engineering, 1994)
- *Detailed Flow Model for Main and North Post, Fort Devens, Mass., Volumes I and II* (Engineering Technologies Associates, 1994)
- *Enhanced Preliminary Assessment, Fort Devens, Mass.* (Roy F. Weston, Inc., 1992)

3.3 Records Search - Adjacent Properties

The records search for properties adjacent to Robbins Pond lease parcel and Fraunhofer lease parcel consisted of a review of records pertaining to SAs, Areas Of Contamination (AOCs), or AREEs that could potentially impact the lease parcel. References are provided in Section 11.0. The records included:

- *Final Maintenance and Waste Accumulation Areas (AREE 61) Report* (Arthur D. Little, 1995d)
- *Final Storm Sewer Evaluation (AREE 70) Report* (Arthur D. Little, 1994b)
- *Community Environmental Response Facilitation Act (CERFA) Report, Fort Devens Facility, Fort Devens, Mass.* (Arthur D. Little, 1994a)
- *Historical Inventory Survey for Fort Devens, Mass.* (ENSR Consulting and Engineering, 1993)
- *Draft Environmental Impact Statement, Fort Devens, Mass., Disposal and Reuse* (ENSR Consulting and Engineering, 1994)
- *Detailed Flow Model for Main and North Post, Fort Devens, Mass., Volumes I and II* (Engineering Technologies Associates, 1994)
- *Enhanced Preliminary Assessment, Fort Devens, Mass.* (Roy F. Weston, Inc., 1992)
- *Ordnance, Ammunition and Explosures Archives Search Report, Fort Devens, Mass.* (USACE, 1995)

3.4 Aerial Photographs and Historical Drawings Review

The aerial photographs review for all of Fort Devens, including the proposed lease parcels and adjacent properties, was conducted by the Environmental Photographic Interpretation Center (EPIC, 1991). The EPIC photographs were reviewed for the purposes of this report. These aerial photographs were analyzed in coordination with maps of the same period. The maps were obtained from Fort Devens's Master Planning Office.

The following aerial photographs and historical drawings were reviewed:

- Camp Devens General Map (War Department, 1919)
- Camp Devens Property Map (War Department, 1920)
- Fort Devens Base Map (Office of the Quartermaster, 1941)
- General Layout Plan of Fort Devens (Directorate of Engineering and Housing, 1954)
- Fort Devens Ranges and Training Areas (Fort Devens, 1957)
- General Road and Railroad Map (USACE, 1962)
- Installation Assessment (EPIC, 1991)
- Range and Training Areas (Fort Devens, 1961)
- Range and Training Areas (Fort Devens, 1967)

3.5 Interviews

Interviews with current employees were conducted as part of the AREE 61 and 69 portions of the BRAC EE and the CERFA investigations.

3.6 Visual Inspections

Visual Inspections of the proposed lease parcel were conducted as part of the CERFA, AREE 61, and asbestos investigations. The CERFA and AREE 61 inspections took place during the summer of 1993, while the AREE 63 and asbestos inspections took place in 1994.

3.7 Identification of Sources of Contamination on Adjacent Properties

3.7.1 Robbins Pond Lease Parcel

In order to identify sources of contamination on the proposed Robbins Pond lease parcel, SAs, AREEs, and areas of contamination (AOCs), as defined in the Interagency Agreement (IAG), were reviewed. A total of six potential sources of contamination were identified on the proposed Robbins Pond lease parcel.

Site	Description
AREE 65, Buildings	Asbestos
AREE 68, Buildings	Lead-Based Paint
AREE 67, (Buildings 3543, 3546, 3527, 3550)	Radon
Bldg 3549	Radiation
Buildings 3547, 3548, 3549	Floor Drain Study
Buildings 3546, 3548, 3549	Existing USTs

3.7.2 Fraunhofer Lease Parcel

In order to identify sources of contamination on the proposed Fraunhofer lease parcel, SAs, AREEs, and AOCs, as defined in the IAG were reviewed. No sources of contamination were identified on the proposed Fraunhofer lease parcel.

3.7.3 Properties Adjacent to Robbins Pond and Fraunhofer Lease Parcels

In order to identify sources of contamination on property adjacent to the lease parcels, SAs, AREEs, and AOCs, as defined in the IAG were reviewed. Two potential sources of contamination were identified:

Site	Description
AREE 70, System 20 A and B	Storm Sewer System
AREE 70, System 40	Storm Sewer System

3.8 Ongoing Response Actions

Currently, no sites within or adjacent to the proposed lease parcels have ongoing response actions.

3.9 Physical Inspections - Adjacent Properties

Physical inspections of the areas adjacent to the proposed lease parcels were conducted during the AREE 63 Supplemental Evaluation Study in March 1994, and during the AREE 61 Study in July 1993.

3.10 Sampling

Sampling activities occurred during the SA 43, AREE 61, and asbestos investigations. Samples were collected in 1993 and 1994.

4.0 Relevant Information Gained During Records Search

The records search is described in Sections 3.2 and 3.3. Environmental concerns associated with the areas identified are discussed in Section 7.

During the search, AREE 61F (SA 43C) and AREE 61AQ (SA 43B) were determined to be located within the proposed lease parcels (Arthur D. Little, 1995d). Study Areas 43B and 43C were historical gas stations each containing 5,000-gallon USTs. These sites have been remediated and approved for no further action. AREE 61F was a historical motor pool that was also approved for no further action. Buildings within the Robbins Pond lease parcel were surveyed for asbestos but not sampled for LBP. Many buildings contained ACM or suspect ACM. Building 3549 was identified in an archival document search as potentially being contaminated with radiation. The building is currently being investigated as part of CHPPM's Radiation Survey (1994). A portion of the proposed Robbins Pond lease parcel underwent a UXO survey during July 1995. UXO was not found the area and the area is no longer considered a potential UXO site.

5.0 Title Search

The property within the proposed lease parcels was acquired by the U.S. Army in 1919. This land was previously owned by private residents of Harvard, Massachusetts (War Department, 1920). Maps displaying tracts of land acquired by the Army and the associated dates are presented in the CERFA Report (Arthur D. Little, 1994a).

6.0 Description of Activities

6.1 Proposed Lease Parcels

The proposed lease parcels were first developed during World War II. Fort Devens, formerly known as Camp Devens, was established in 1917. The proposed lease parcel was acquired in 1919 from private land owners of the town of Harvard.

6.1.1 Proposed Robbins Pond Lease Parcel

In 1941, 35 temporary structures were constructed on the proposed Robbins Pond lease parcel. The structures consisted of barracks, mess halls, gas stations, motor pools, an infirmary, and a chemical warehouse (Directorate of Engineering and Housing, 1954). These buildings were demolished during the late 1960s (EPIC, 1991).

The proposed lease parcel currently contains 17 wooden buildings. The buildings' numbers and uses are described in Section 2.1. Six of the 17 buildings are heated with oil and have 1,000-gallon USTs (Fort Devens Environmental Management Office, 1994). The remaining buildings were formerly fueled by coal and were converted to natural gas in 1966.

6.1.3 Proposed Fraunhofer Lease Parcel

The proposed Fraunhofer lease parcel is currently vacant of buildings. However, it encompasses playing fields. From 1941 to the late 1960s the site contained 10 wooden structures. The former buildings were fueled by coal.

6.2 Adjacent Properties

Adjacent properties to both the Robbins Road and Fraunhofer lease parcels include Robbins Pond, a daycare center, Building 3578, administrative and storage buildings, two hotels, Building 2002, and a family housing area. Dakota Street runs along the northern property line of both parcels and Queenstown Street runs along the western property line border. Adjacent properties to the Fraunhofer Parcel would include the sites in the Robbins Pond Parcel discussed in Section 6.1 and 7.1.

7.0 Hazardous Substances and Petroleum Products Management Practices and Potential Impacts

The management practices of hazardous and petroleum products within and adjacent to the Robbins Pond and Fraunhofer lease parcels were evaluated as an integral part of the EBS. The results are summarized below.

7.1 Proposed Lease Parcels

7.1.1 Robbins Pond Lease Parcel

Presence or absence of hazardous waste storage activities or storage of petroleum products within the Robbins Pond lease parcel is summarized below. Maintenance waste and accumulation areas, historical gas stations, motor pools, and previously removed USTs exist within the proposed lease parcel.

7.1.1.1 AREE 61AQ / SA 43B. AREE 61AQ, a maintenance and waste accumulation area, includes SA 43B. a historical gas station. The site is located on the corner of Queenstown Street and El Carey Street. The historical gas station, operating during World War II, consisted of a pump island and a small gasoline pump house. The gas station was equipped with a 5,000-gallon UST located between the pump house and pump island. The gasoline pump house had a drainline that lead to a dry well located 11 feet from the rear of the pump house. A 1952 sanitary sewer map indicated that the dry well was never found during a site investigation and, subsequently, may have been buried underground. Site investigations at other dry well locations were determined no further action and therefore, the drywell at AREE 61AQ was determined no further action.

A site investigation (SI) of the gas station was conducted in order to determine whether abandoned tanks remained in the ground and if any residual contamination was present in the subsurface soil. A UST was not identified, but sampling results indicated that total petroleum hydrocarbons (TPHC) contamination was present in the subsurface soil. A supplemental site investigation (SSI) was conducted to confirm the SI sampling results. The SSI confirmed that high TPHC concentrations were from asphalt in the soil. In addition, investigations indicated that residual-TPHC contamination had not migrated to the water table and was not impacting ground water. The site therefore, was approved for no further action in the Fall of 1995.

7.1.1.2 AREE 61F / SA 43C. AREE 61F, a maintenance and waste accumulation area, includes SA 43C, a historical gas station. The site is located near the intersection of El Carey Street and Patch Road. AREE 61F was a historical motor pool consisting of four buildings, 3547, 3548, 3549, and 3541. Buildings 3547, 3548, and 3549 were World War II vehicle repair shops, and Building 3541 was a gas

station. During the AREE 61 investigation, Building 3541 operated as a hazardous waste satellite accumulation area, Building 3547 operated as an equipment warehouse, Building 3548 operated as a sport utility motor pool, and Building 3549 operated as a warehouse.

The historical gas station consists of a pump island and a small gasoline pump house. The gas station had two 5,000-gallon USTs located between the pump house and the pump island. Documentation indicated that one tank was removed in 1953, and may have been reinstalled at the North Post Airfield. The second tank was removed in 1992.

A field investigation of the gas station was conducted to determine whether abandoned tanks remained in the ground and if any residual contamination was present in the subsurface soil. Sample results indicated no contamination present in the soil or ground water. The Army, therefore, recommended for the USTs at the historical gas station by no further action. An investigation of a dry well associated with the historical gas station did not indicate subsurface soil contamination, however, the dry well was recommended for closure in accordance with Massachusetts underground injection system regulations as a compliance action in the event of property transfer.

Site investigations at the historic motor pool included examining a historic grease rack located in the existing dirt parking lot, and indoor floor drains inside Buildings 3547, 3548, and 3549. Subsurface soils collected near the historic grease rack did not indicated subsurface soil contamination. TPHC contamination was identified in the floor drains, however, because the floor drains are located in buildings that are used primarily for storage, the Army recommended no further action for the floor drain areas. In the event of site renovation or property transfer that would include razing the buildings, the floor drains were recommended for removal at that time along with any residual contamination. AREE 61F was approved for no further action in the Fall of 1995.

7.1.1.3 AREE 65, Asbestos. During the asbestos survey, three buildings in the proposed Robbins Pond lease parcel were sampled, and the remaining 14 were surveyed to identify ACM and assumed ACM. ACM was identified in all 17 buildings. Roofing sealant was not sampled due to the potential for damaging the integrity of the material and was, therefore, assumed to contain asbestos. The three buildings sampled by asbestos include: 3551, 3536, and 3543. ACM found in the buildings surveyed included: magnesia/calciform boiler insulation, magnesia/calciform breech or stack insulation, low-temperature magnesium/calciform tank insulation, wall plaster, vinyl floor tile, and its associate mastic (Arthur D. Little, 1995c).

7.1.1.4 AREE 68, Lead-Based Paint. None of the buildings in the proposed lease parcel were surveyed for LBP. However, due to the age of the buildings, there is a potential for LBP (Arthur D. Little, 1995b).

7.1.1.5 Existing Underground Storage Tanks. Three buildings in the proposed lease parcel are heated by No. 2 fuel oil and have 1,000-gallon USTs. The buildings are: 3546, 3548, and 3549. The estimated year of installation for these tanks was 1966. Documentation indicted that no leaks or spills have been reported for these tanks (U.S. Army, 1994).

7.1.1.6 Radiation. Following an archival records search conducted by CHPPM, Building 3549, a vehicle maintenance building, was identified as potentially contaminated with radioactive materials. The potential source of contamination may be due to the use of generic maintenance items. CHPPM will be conducting a field investigation at this site. If no radiation is detected, the area will no longer be considered potentially contaminated with radiation (CHPPM, 1994).

7.1.1.7 Unexploded Ordnance. The USACE conducted a UXO survey throughout the Main and North Posts. Preliminary archival investigations identified 26 sites within the North and Main Posts that were potentially contaminated with UXO. One of the 26 sites, Site No. 17, was located at the southern end of the Robbins Pond potential lease parcel. The site, identified as Site No. 17, Area No. 5, was found not to contain UXO and therefore is no longer a potential UXO site (USACE, 1995).

7.1.2 Proposed Fraunhofer Lease Parcel

There is no hazardous waste storage or storage of petroleum products within the proposed Fraunhofer lease parcel.

7.2 Adjacent Properties

Presence or absence of hazardous waste storage activities or storage of petroleum products on properties adjacent to the proposed lease parcels are summarized below.

7.2.1 AREE 61AR / SA 43D

AREE 61AR, a maintenance and waste accumulation area, includes SA 43D, an historical gas station. The site is located on the corner of Patch Road and a small access road perpendicular to Queenstown Street. The area is currently used by the DOL/MMD to store Army equipment. Prior to becoming a storage area, the area contained an historical gas station constructed during the early 1940s and used during World War II.

The gas station consisted of two 5,000 gallon gasoline USTs located on either side of a pump island, and a small pump house, Building 171. A drain line located inside the building may have lead to a dry well located adjacent to the rear of the building. A 1952 sanitary sewer map indicated that the dry well was never found during a site investigation and was subsequently buried underground.

A field investigation of the gas station was conducted to determine whether abandoned tanks remained in the ground and if any residual contamination was present in the subsurface soil. Two USTs were detected and removed in 1992. Soil contamination was found in soil at the water table around the UST excavation. The site underwent a soil removal action in 1993 and following the removal, the site was recommended for no further action. The soil removal included most of the area where the historical dry well was located and, therefore, most likely also removed what remained of the historical dry well. A Closure Report was issued for the site in 1994. AREE 61AR was approved for no further action in the Fall of 1995.

7.2.2 AREE 61AI

AREE 61AI, the Auto Craft Shop at Building 3587, operates as a self-help auto-maintenance shop. The Auto Craft Shop is located on Feinburg Street, across from the public car wash. Aerial photographs indicate that the area was unoccupied prior to the construction of the Auto Craft Shop in 1970.

A hazardous waste satellite accumulation area is located inside the building and consists of waste antifreeze, oil filters, and Speedi-Dri. A 90-day hazardous waste satellite accumulation building is situated outside the Auto Craft Shop. During the site inspection the satellite accumulation area contained a 55-gallon drum of hazardous waste and a number of empty 55-gallon drums. The building had two 550-gallon aboveground waste oil tanks with secondary containment. A 1,000-gallon waste oil tank, which was installed in 1980, also existed outside the building (Arthur D. Little, 1995d).

The building has a concrete foundation and concrete walls. Most of the area outside of the building is paved. Trench drains exist at the end of each of the 14 bays and discharge into a sand and gas trap located near the rear of the building. The sand and gas trap discharges into the sanitary sewer system. Two vehicle maintenance lifts exist inside two bays, one is aboveground and one is underground with a 35-gallon hydraulic oil capsule. The bathrooms are connected to the sanitary sewer system. The building is heated by natural gas. Northeast of the building is an unpaved parking lot that stores vehicles in need of repair (Arthur D. Little, 1995d).

The 1,000-gallon waste oil tank was removed by ATEC Environmental Consultants in 1992 and was included in the Fort Devens Underground Storage Tank Management Program. A surficial soil investigation was conducted in the unpaved

parking lot northeast of the building to determine whether potential contamination existed from vehicles parked in the area. Field screening of the surface soil in the parking area did not indicate the presence of contamination (Arthur D. Little, 1995d). In the Fall of 1995 the site was approved for no further action.

7.2.3 AREE 61BF

AREE 61BF is located on Dakota Street, across from Robbins Pond. The area consists of 14 buildings which were used during World War II, prisoners of war (POWs). The buildings, at that time, were used as mess halls, administrative buildings, shower houses and bathrooms, and German prisoners of war (POWs) were housed in adjacent tents. Between 1954 and 1960, the bathrooms and shower houses were converted to classrooms for the Intelligence School. In 1992, approximately half of the area was being utilized by the Intelligence School's Electronic Warfare Division (EWD). According to the Army's personnel, the EWD used the area as an operational area, to park vehicles and operate transmitters and receivers (Arthur D. Little, 1995d).

After EWD disembarked from the site, two 55-gallon drums containing unknown waste were removed by the Fort Devens Environmental Management Office (EMO) and a small metal shed containing waste was emptied and demolished. The waste was brought to Building 1650, Fort Devens's hazardous waste accumulation area.

After reviewing documentation and interviewing personnel of the Army, thoroughly inspecting the site, and reviewing aerial photographs, both past and present activities occurring at 61BF present minimal potential for releases of contaminants or hazardous materials. The waste associated with EWD activities was removed and there is no indication of releases of hazardous materials (Arthur D. Little, 1995d). The site was approved for no further action in the Fall of 1995.

7.2.4 AREE 70, Systems 20A and 20B

Storm Sewer System 20A drains the north side of Queenstown Street, beginning at the intersection of 10th Mountain Division Road and Queenstown Street. The system then drains to the northeast, under Dakota Street and into Willow Brook. System 20B collects runoff from the paved parking lot of the Post Exchange and drains southeast, under Queenstown Street. System 20 then discharges through a headwall into a drainage swale, flowing eastward, under Patch Road, and entering Robbins Pond (Arthur D. Little, 1994b).

Land use near System 20A included a historical gas station AREE 61AQ / SA 43B constructed in the 1940s. Land use in the vicinity of System 20B included a car wash, Building 2017, a shopping center, an Army medical equipment, storage area, AREE 61AR / SA 43D, and an autocraft shop Building 3587. The AREEs and SAs

associated with System 20B include: 61C, 61AZ, 61AQ, 61AI, 61AR, 61F, SA 43F, SA 43C, and SA 43D.

Water samples were not collected from System 20, because water was not present in the system during the time of sampling. The discharge route was verified by introducing water into the system prior to the initiation of the sampling program.

System 20 had one outlier for selenium in a sediment sample. There were no clear trends between the outlier and the historical or current land uses and potential sources of contamination in the area of the storm sewer system. Therefore, based on the review of the contaminants detected in System 20, the low concentration of the outlier, and the lack of correlation between the outlier and the potential sources of contamination, System 20 was recommended for no further action (Arthur D. Little, 1994b).

7.2.5 AREE 70, System 40

Storm Sewer System 40 is a small system located on the western side of Queenstown Street. It drains the paved area around Building 2007, the bowling alley. The system flows to the southeast, where it crosses under Queenstown Street, near the horse stables, and discharges from a collapsed headwall in a field to the west of Patch Road (Arthur D. Little, 1994b).

Land use near System 40 includes horse stables, open fields, a gasoline station, car wash, autocraft shop, and vehicle maintenance shop. The AOCs, SAs, and AREEs associated with this system include: 61G, 61AB, 61AI, 61AZ, 69AP, and AOC 43G.

Sediment samples were collected in the storm sewer system. One sediment sample was taken from the head wall at the system outfall. The discharge route was verified by introducing water into the system prior to the initiation of the sampling program.

System 40 had low concentrations of motor-pool contaminants (metals and polynuclear aromatic hydrocarbons, but TPHC were not detected. This storm sewer system was recommended for no further action because there was no correlation made between the associated SAs, AOCs, AREEs and the contaminants found in the sample (Arthur D. Little, 1994b).

7.2.6 Unexploded Ordnance

The USACE is currently conducting a UXO survey throughout Main and North Posts. Preliminary archival investigations identified 26 sites within the North and Main Posts that are potentially contaminated with UXO. One of the 26 sites, Site No. 18, Area No. 15, was located east of the proposed lease parcels and contained a majority of Robbins Pond. The site was surveyed in Noember 1995 and no UXO was detected. The site is therefore no longer a potential UXO site (USACE, 1995).

8.0 Relevant Information From Records Review, Interviews, and Aerial Photographs Review

The purpose of this report is to identify locations within the proposed lease parcels that may have been impacted in the past by releases of hazardous substances or petroleum products. A review of information regarding these releases has been conducted, and the results presented in previous sections. The results are primarily a summary of releases, or potential releases, identified in previously published documents. No interviews were conducted specifically for this document. No new areas of concern were identified either within the proposed lease parcels or adjacent properties as a result of the information review.

9.0 Ongoing Response Actions

There are no ongoing response actions on the proposed Robbins Pond lease parcel, proposed Fraunhofer lease parcel, or adjacent properties.

Building 3549, located within the Robbins Pond parcel, has yet to undergo a radiation survey. If radiation contamination is not detected the site will no longer be considered a potential radiation site.

10.0 Recommendation as to Suitability to Lease

After a review of documentation and inspections of the proposed lease parcels and adjacent areas, as well as a review of the anticipated activities within the proposed lease parcels, it is recommended that the parcels be found suitable to lease for the proposed activities. The results of the review of the documentation on adjacent properties did not identify any environmental potential impacts on the proposed lease parcels. Within the Robbins Pond proposed lease parcel, the potential environmental concerns are related to ACM and potential LBP in the buildings.

It is recommended that, in accordance with DoD guidance, a hazardous substance notice is needed because hazardous substances or petroleum products were either stored for one year or more, known to have been released, treated, or disposed of on the proposed lease parcels. The hazardous notice should be issued due to the three fuel oil USTs located outside Buildings 3546, 3548, and 3549; the previously removed USTs from former Buildings 170 and 169, and the presence of the former hazardous waste satellite accumulation area at Building 3541. A notice should also be given for the presence of asbestos and potential presence of LBP and radiation on the lease parcel.

11.0 Selected References

ABB Environmental Services, 1993a. *Site Investigation Data Packages for Groups 2, 7 and Historical Gas Stations, Data Item A009, Fort Devens, MA*. January.

ABB Environmental Services. 1993b. *Fort Devens Site Investigation Report, Groups 2, 7 and Historical Gas Stations*. May.

ABB Environmental Services. 1994a. *Supplemental Site Investigation Data Packages for Groups 2, 7 and Historical Gas Stations, Data Item A009*. January.

ABB Environmental Services. 1994b. *Draft No Further Action Decision Under CERCLA Study Area 43B, Historical Gas Station Sites, Group 2, 7 and Historical Gas Stations, Fort Devens, MA*. May.

ABB Environmental Services. 1995. *Draft No Further Action Decision Under CERCLA Study Area 43C, Historical Gas Station Sites, Group 2, 7 and Historical Gas Stations, Fort Devens, MA*. January.

Arthur D. Little. 1995a. *Final Radon Survey Report (AREE 67) Base Realignment and Closure Environmental Evaluation (BRAC EE) Part II Fort Devens, Massachusetts*. May.

Arthur D. Little, 1995b. *Draft Lead-based Paint Survey, Base Realignment and Closure Environmental Evaluation (BRAC EE), Fort Devens, MA*. May.

Arthur D. Little. 1995c. *Final Asbestos Survey Report (AREE 65) Base Realignment and Closure Environmental Evaluation (BRAC EE) Part II Fort Devens, MA*. May.

Arthur D. Little. 1995d. *Final Maintenance and Waste Accumulation Areas (AREE 61) Report Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, Massachusetts*. June.

Arthur D. Little. 1995e. *Final Previously Removed Underground Storage Tank (AREE 63), Base Realignment and Closure Environmental Evaluation (BRAC EE) Fort Devens, MA*. June.

Engineering Technologies Associates, Inc. 1994. *Detailed Flow Model for Main and North Post, Fort Devens, Massachusetts*, Volumes I and II. September.

Arthur D. Little. 1994a. *Community Environmental Response Facilitation Act (CERFA) Report, Fort Devens Facility, Fort Devens, MA*. April.

Arthur D. Little. 1994b. *Final Storm Sewer Evaluation (AREE 70) Report, Base Realignment and Closure Environmental Evaluation (BRAC EE), Fort Devens, Massachusetts*. June.

ENSR Consulting and Engineering. 1993. *Historical Inventory Survey for Fort Devens, Massachusetts*. May.

ENSR Consulting and Engineering. 1994. *Draft Environmental Impact Statement, Fort Devens, Massachusetts, Disposal and Reuse*. September.

OHM Remedial Services Corp. (OHM) 1994. *Draft Final Closure Report, Study Area 43D, Fort Devens, MA*. November.

Roy F. Weston, Inc. 1992. *Enhanced Preliminary Assessment, Fort Devens, Massachusetts*. April.

SEA Consultants. 1994. *Non-Residential Floor Drain Evaluation Study, Volumes I and II, Fort Devens, Massachusetts*. February.

U.S. Army Center for Health Promotion and Preventative Medicine. 1994. *Industrial Radiation Survey Historical Data Review, Review No. 27-43-2453-94*. August 10 through September 30.

U.S. Army Corps of Engineers, Hunstville. 1995. *U.S. DoD, BRAC, Ordnance, Ammunition and Explosives Archives Search Report, Fort Devens, MA*. May.

U.S. Army, Fort Devens. Environmental Management Office. 1994. Fort Devens Underground Storage Tank Management Plan, Fort Devens, MA. December.

12.0 Selected Map and Photograph References

Directorate of Engineering and Housing. 1954. General Layout Plan of Fort Devens, Mass. Fort Devens, Mass. June.

Environmental Photographic Interpretation Center. 1991. Installation Assessment, Fort Devens, Mass. Volume II. September.

Fort Devens. 1957. Fort Devens Ranges and Training Areas, Fort Devens, Mass. Fort Devens Special Map, Series V814S. January.

Fort Devens. 1961. Ranges and Training Areas, Fort Devens, Mass. January.

Fort Devens. 1967. Ranges and Training Areas, Fort Devens, Mass. April 20.

Office of the Quartermaster General. 1941. Fort Devens Base Map. Construction Division. December.

U.S. Army Corps of Engineers. 1962. General Road and Railroad Map. New England Division. May.

War Department. 1919. Camp Devens General Map. Prepared by Construction Division, M & R Branch. April.

War Department. 1920. Camp Devens Property Map. Prepared by E. I. McLaughlin, Construction Division. June 16.

Finding of Suitability to Lease (FOSL)

Fort Devens
(Robbins Pond Lease Parcel)

Fort Devens, Massachusetts

December 1995

1.0 Purpose and Finding

a. The purpose of this FOSL is to document a decision made pursuant to Department of Defense (DoD) FOSL guidance that property is suitable for lease.

b. Based on results detailed in the Environmental Baseline Survey (EBS), I have determined that the proposed Robbins Pond lease parcel is suitable to lease to the Massachusetts Government Landbank for a period of 25 years to be used for administrative and business purposes.

2.0 Property Description

The proposed Robbins Pond parcel consists of approximately 12.5 acres. The parcel is located on the Main Post between Queenstown Street, Patch Road, Dakota Street, and Access Road I. Buildings that exist on the proposed Robbins Pond parcel include: 3526, 3527, 3528, 3533, 3534, 3535, 3536, 3538, 3541, 3543, 3545, 3546, 3547, 3548, 3549, 3550, and 3551. The wooden buildings were constructed during the 1940s.

3.0 Environmental Condition of the Property

An analysis of the environmental conditions of the site proposed for lease has been made by the U.S. Army Environmental Center in the form of an EBS for the Robbins Pond parcel. The EBS was conducted in accordance with the requirements of the DoD FOSL guidance for conducting an EBS.

Environmental conditions of potential concern identified on the proposed lease parcel include the presence of asbestos and the potential presence of lead-based paint (LBP) and radiation. The following building materials were found to contain asbestos: breech or stack insulation, gaskets, pipe insulation, wall plaster, tank insulation, and vinyl floor tile and its associated mastic. Documentation on LBP was not available for any of the buildings located within the proposed parcel, however, due to the age

of the buildings, there is a possibility of LBP. Potential exposure to LBP and asbestos was determined minimal due to the good condition of both asbestos containing materials and painted surfaces. Children and adolescents will not occupy the proposed lease parcel. Petroleum products were stored, but not released on the proposed lease parcel. Currently, three 1,000-gallon No. 2 fuel oil underground storage tanks (USTs) exist at Buildings 3546, 3548, and 3549. Historically, the proposed lease parcel contained three 5,000-gallon fuel oil USTs and a satellite hazardous waste accumulation area. Building 3549 is undergoing a radiation survey. If radiation is not found, the area will no longer be considered suspect.

Based upon the EBS and the references cited therein, the proposed parcel is suitable for lease for its intended purpose. Although hazardous substances and petroleum products were stored for a year or more on the proposed parcel, there is no evidence of a release or disposal of such substances, and the property is not now contaminated with hazardous substances or petroleum products. In accordance with the DoD FOSL guidance and Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) 120(h), a hazardous substance notice will be given for the presence of asbestos and the potential presence of LBP and radiation within the proposed lease parcel. A notice for petroleum product storage of more than one year is required for previously removed and existing USTs associated with buildings within the proposed lease parcel. A notice will also be given for total petroleum hydrocarbon contamination present from asphalt in the subsurface soil at a historical gas station located in the northwest corner of the proposed lease parcel.

Adjacent properties do not pose a risk to human health or the environment on the proposed lease parcel because although hazardous substances and/or petroleum products were stored for a year or more on adjacent properties, there is no evidence of a release or disposal of such substances on the proposed parcel.

4.0 Regulatory Comment

Regulatory agencies were notified at the initiation of the EBS and the FOSL. Regulatory comments received during the development of these documents were reviewed and incorporated as appropriate.

Finding of Suitability to Lease (FOSL)

Fort Devens
(Robbins Pond Lease Parcel)

5.0 Lease Provisions

a. Hazardous substance and petroleum product notices, as provided in Section 3.0, will be given.

b. Provisions will be included in the lease to ensure that the requirements of Section IV (E) and (G) of the DoD FOSL policy are met.

c. The model lease provisions attached to the DoD FOSL policy will be included in lease.

d. A notice will also be given for the presence of asbestos and potential presence of radiation, and LBP in buildings within the proposed lease parcel. This notice will include a statement about responsibilities of the lessee if the use of the lease parcel change to residential properties.

e. In the event of site renovation or property transfer that would include razing Buildings 3547, 3548, or 3549, floor drains within the buildings should be removed.

f. The Army shall have access to the property in any case in which a response action or corrective action is found to be necessary after the date of property lease, or if such access is necessary to carry out a response action or corrective action on adjacent property.

g. When the property is transferred it will be transferred in accordance with Section 37 of the Fort Devens Federal Facility Agreement.

6.0 Conclusion

Based on the above information, I conclude that the DoD requirements to reach a FOSL have been met and therefore, the Robbins Pond parcel can be used pursuant to the proposed lease. The CERCLA 120 (h) (1) notice requirements and the lease restrictions discussed above must be placed in the lease.

Arthur T. Dean
Major General, USA
Deputy Chief of Staff for Personnel and
Installation Management

Comment and Response Package

U.S. Environmental Protection Agency and Massachusetts DEP Comments to the Draft Environmental Baseline Survey/Finding of Suitability to Lease, Robbins Pond and Fraunhofer Lease Parcels

Submitted to Fort Devens Base Realignment and Closure Division, Environmental Management Office

Prepared for:

U.S. ARMY ENVIRONMENTAL CENTER
ABERDEEN PROVING GROUND, MARYLAND 21010

Prepared by:

Arthur D. Little, Inc.
25 Acorn Park
Cambridge, Massachusetts 02140-2390

Requests for this document must be referred to:
Commander, U.S. Army Environmental Center
Aberdeen Proving Ground, Maryland 21010

December 1995

Response to USEPA Comments
Draft EBS/FOSL, Proposed Lease Parcel
Robbins Pond and Fraunhofer Parcels

Comment

1. **Figure 1:** This Figure should also include the CERFA Parcel determinations in the area or a separate Figure showing these should be included.

Response

1. The EBS figure is parcel-specific illustrating only the Robbins Pond and Fraunhofer lease parcels. Although CERFA parcels are described in the EBS, they are not illustrated on the EBS figure.

Comment

2. **Section 2:** What happened to the building designated as storage for chemical warfare materials (Building No. 4158)?

Response

2. Building 4158 was a historical chemical storage warehouse and was demolished with numerous other buildings after the late 1960s. The EBS has been updated to state that the building was a chemical storage warehouse.

Comment

3. **Table on Page 3-2:** Why is Parcel 111 disqualified? Under Army policy, I believe this parcel should be CERFA qualified.

Response

3. The CERFA report indicated that Parcel 111 contained petroleum products and/or CERCLA hazardous substances. Therefore, the parcel is CERFA disqualified.

Comment

4. **Section 7.2.1, Page 7-5: a.** It seems possible that contaminated GW could be flowing through this parcel from 43D. Provisions for wells and/or access should be contained in the transfer documentation. **b.** Are these levels above DEP MCP limits?

Response

4. A Closure Report was issued for SA-43D, AREE 61AR in 1994. The report was issued based on a soil removal action in 1993 and the site has therefore been determined an NFA site. Ground water was not determined to be contaminated in the area of 43D.

Comment

5. **Section 7.2.6, Page 7-8:** A schedule for the completion of UXO activities should be included.

Response

5. The UXO survey at the Robbins Pond Parcel is complete. The survey found no UXO contamination and therefore the site is no longer considered a potential UXO site.

Comment

6. **Section 10.0, 1st Paragraph:** "the building . . ." shouldn't this be "within the buildings . . ."?

Response

6. Section 10.0 of the EBS has been changed to state that potential environmental concerns are related to ACM and potential LBP located within the buildings on the proposed lease parcel.

Comment

7. Guidance dated 1 June 1994 from the Deputy Secretary of Defense applies to "property where release or disposal of hazardous substances or petroleum products has occurred" and requires a determination that the requirements of CERCLA Section 120(h)(3) have been met for the property (p. 6 of the guidance). Because there has been some release of hazardous substances or petroleum products on the parcel, please state in §10.0 of the EBS and the FOST why the property can be transferred, i.e., that based on (1) a determination that no remedial action is required or (2) a determination that all remedial action necessary to protect human health and the environment has been taken.

Response

7. The property is currently not undergoing transfer, but instead is undergoing a lease. Requirements of CERCLA Section 120(h)(3) are mentioned in the FOSL.

Comment

8. Is there an "intended use analysis," as required by Section 4, page 5 of the DoD guidance? Please refer to this in the EBS. If no use is known, please state. Are there any restrictions on the use of the property. If so, please state them as part of the intended use analysis.

Response

8. The intended use of both proposed lease parcels is for administrative and business purposes. The use is stated in the EBS and FOSLs. Restrictions on the use of property are stated in the FOSLs.

Comment

9. The FOST and the EBS should refer to Section 37 of the soon to be amended FFA regarding transfers/leases of property and its applicability to this transfer.

Response

9. The FOSLs have been updated to include a reference to Section 37 of the Fort Devens Federal Facility Agreement.

Response to MADEP Comments
Draft EBS/FOSL, Proposed Lease Parcel
Robbins Pond and Fraunhofer Parcels

General Comments

Comment

1. The Robbins Pond parcel includes an area known as the Fraunhofer Parcel. The Fraunhofer Parcel is currently used as a ball field; it does not appear to have any environmental problems.

Response

1. Environmental concerns, if any, in the Fraunhofer parcel are mentioned in the EBS and FOSL.

Comment

2. Several times throughout the document, No Further Action (NFA) recommendations are mentioned. Please be aware that DEP did not necessarily concur with all the NFA recommendations. In particular, the following NFAs are considered by DEP to be unresolved:

    - AREE 61AQ - Historic Building 169, Historic Gas Station; DEP requested that the Army investigate the drywell associated with the building as proposed in the AREE 61 Supplemental Site Evaluation, October 1994. This work was never undertaken, according to DEP records.

    - AREE 61AZ - Building 2017, Car Wash; DEP suggested that the Army further investigate storm sewer system 40 to deal with possible contamination before concurrence with the NFA.

    - AREE 61BF - 1400 Area, Intelligence School; DEP requested additional sampling because of unmarked 55-gallon drums and a diesel-contaminated soil pile stored at the site. This sampling has not been done to date.

Response

2. As of fall 1995, AREEs 61AQ, 61AZ, and 61BF are approved for NFA by the Army and regulators.

Comment

3. The Department believes that any USTs remaining on the transfer parcel should be identified and pulled. Any tanks left in the ground continue to be a potential source of contamination.

Response

3. Both parcels are leases, not transfers, and, therefore, the management of the USTs will be the responsibility of the lessee.

Comment

4. AREE 61AR, Historic Motor Pool; This AREE was transferred to SA 43D for further investigation of a suspected UIS/drywell. The Army used GPR and a magnetometer to locate this drywell. The Final SI Report for Groups 2 & 7, May 1993 notes that the drywell was never found. When preparing the master list of sites, the Army should note under AREE 61AR that the drywell in question was searched for but not located under the SA 43D study.

Response

4. As of fall 1995, AREE 61AR was approved for NFA by the Army and regulators.

Specific Comments

Comment

1. **Page 1, Paragraph 2:** The name and acronym at the end of the paragraph do not correspond.

Response

1. The text has been updated.

Comment

2. **Page 2-2, Chart:** Former Building 4158 is described as being a storage place for chemical warfare. Please indicate whether any site assessment was done at the location of the building.

Response

2. Building 4158 was not a chemical warfare storage area, it was a chemical warehouse. The EBS has been updated to clarify the buildings' historical function.

Comment

3. **Page 2-4, Paragraph 1:** The UST associated with the gas station at Building 2008 should be removed if it is not being used.

Response

3. Comment noted. Building 2008 falls within the Reserve Enclave and therefore the tank will be the responsibility of the Reserve Enclave.

Comment

4. **Page 3-2, Chart:** There are several areas that contain potential environmental contaminants that should be added to this chart because these sites are upgradient of the transfer parcel. These sites are: Building 2002 (UST); Building 3577 (UST); Building 3566 (RCRA Site); Building 3545 (UST); and SA 43B. In addition, the floor drains in Buildings 3547 and 3548 require further investigation to locate and identify the final disposal points of the floor drain discharges. The studies did not conclusively indicate whether the floor drains discharge into a common dry well or into an oil/water separator.

Response

4. Spills and/or leaks have not been reported for the USTs associated with the mentioned buildings. SA 43B is included in the EBS. The floor drains in Buildings 3547 and 3548 will be the responsibility of the lessee.

Comment

5. **Page 3-3, Paragraph 3:** The groundwater flow model has recently been updated. The final document should reflect these changes regarding the groundwater flow direction.

Response

5. Ground water flow in the area has not changed.

Comment

6. **Page 3-8, Paragraph 1:** The Supplemental Site Evaluation for AREE 61, October 1994, states that when the buildings associated with AREE 61F are transferred, the dry well must be closed according to State regulations.

Response

6. AREE 61F has been approved for NFA. Closing the drywell in accordance with State regulators will be the responsibility of the lessee.

Comment

7. **Page 6-1, Paragraph 2:** The MADEP GIS map indicates that Buildings 3541 and 3545 also have USTs (see also Page 7-3, Paragraph 5). The Non-residential Floor Drain Letter Report, dated May 27, 1994, includes Building 3541 as one of the buildings with a floor drain (see also Page 7-3, Paragraph 6).

Response

7. USTs at Building 3541 have been removed and the floor drain leads to a historical dry well. According to EBS investigations, Building 3545 has gas heat.

Comment

8. **Page 7-5, Paragraph 3:** The document states that the concentrations of contaminants do not appear to pose a threat to human health. The threat to the environment should also be addressed.

Response

8. Comment noted. The text has been updated.

Appendix B: Environmental Baseline Survey, Finding of Suitability to Lease, and Finding of Suitability to Transfer Updates

Appendix B is reserved for future updates to the Basewide Environmental Baseline Survey, Finding of Suitability to Lease, and Finding of Suitability to Transfer.