FINAL

WORK PLAN
REMEDIATION ACTIVITIES, SITE 8
PHASE 1: TIME CRITICAL REMOVAL ACTION
PHASE 2: INTERIM REMEDIAL ACTION
106TH RESCUE GROUP
NEW YORK AIR NATIONAL GUARD
FRANCIS S. GABRESKI AIRPORT
WESTHAMPTON BEACH, NEW YORK

Prepared for:

Air National Guard/CEVR
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Prepared by:

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ACRONYM LIST

AM	Action Memorandum
Base	New York Air National Guard air base
CFR	Code of Federal Regulation
COC	contaminant of concern
EPA	Environmental Protection Agency (United States)
GPR	ground penetrating radar
HASP	Health and Safety Plan
IRP	Installation Restoration Program
NGB	National Guard Bureau
NYANG	New York Air National Guard
PID	photoionization detector
RI	Remedial Investigation
SI	Site Investigation
VOC	volatile organic compound
WP	Work Plan

1.0 INTRODUCTION

Harding ESE has prepared this Work Plan (WP) for the National Guard Bureau (NGB) for the Installation Restoration Program (IRP) Site 8 at the New York Air National Guard (NYANG) air base (Base) at Francis S. Gabreski Airport in Westhampton Beach, Suffolk County, New York (see Figure 1). The purpose of this WP is to provide the approach for the closure of the Site 8 septic systems. An Action Memorandum (AM), which conforms to the format in the *U.S. Environmental Protection Agency (EPA) Superfund Removal Procedures – Action Memorandum Guidance (*1990*),* is included in Appendix A.

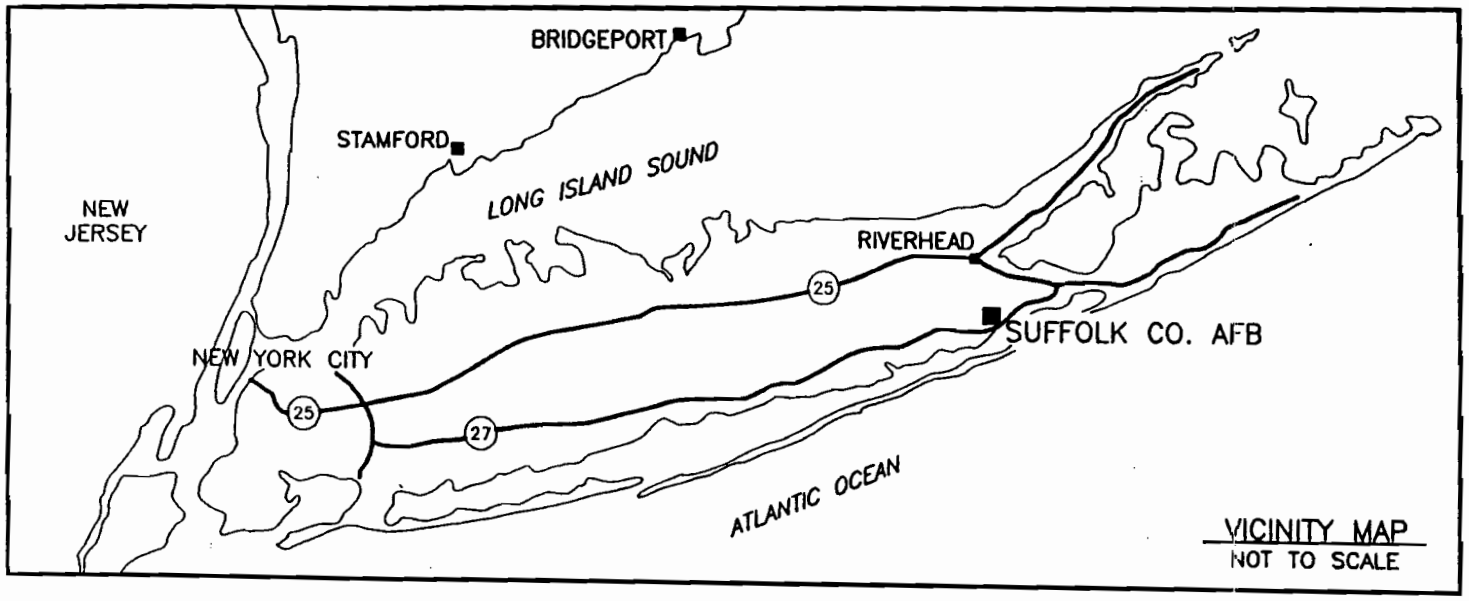
The Gabreski Airport is located on Riverhead Road two miles north of the Atlantic Ocean shoreline in Westhampton Beach, New York. The airport is owned by Suffolk County and consists of about 11,550 acres of relatively flat terrain formerly occupied by the Suffolk County Airport. The 106th Rescue Group of the NYANG leases approximately 70 acres of runway, maintenance and service facilities, and hangars on the west side of the airport.

1.1 Project Overview

The work to be completed includes closure of the old base septic system at Site 8, 106th Rescue Group, NYANG, Francis S. Gabreski Airport. Site 8 is subdivided into five main cells and further subdivided into 21 subsites, identified as 8A through 8U (Figure 2). Site 8Q is further subdivided into seven systems, associated with Building 250, designated as 8QA through 8QG.

The septic system for each subsite is comprised of septic tanks or cesspools (Figures 3 and 4) or a combination of both. The systems also include distribution boxes, mud traps, and distribution lines that are considered the distribution system. To close each system, the septic tanks and cesspools will be accessed and any liquid, sediment, or sludge will be removed. The structures will be removed and/or filled with sand and the surface completed to match existing conditions. The distribution systems (distribution boxes, mud traps, and distribution lines) will be abandoned in place by grouting the ends of these lines where they penetrate into the septic tanks and cesspools.

Liquid, sediment or sludge removed prior to filling the systems will be staged on site and properly sampled for disposition. The surface soils excavated to access the structures will be screened using a photoionization detector (PID) to confirm suitability for use as backfill material.



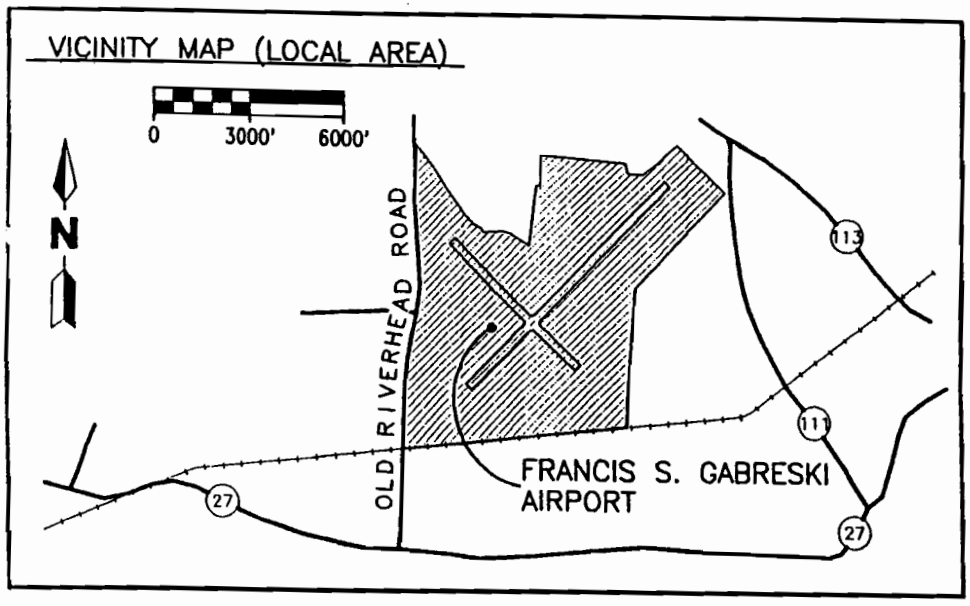


FIGURE 1
LOCATION MAP
SITE 8 WORK PLAN
106TH RESCUE GROUP, NYANG
FRANCIS S. GABRESKI AIRPORT
WEST HAMPTON BEACH, NEW YORK

HARDING ESE

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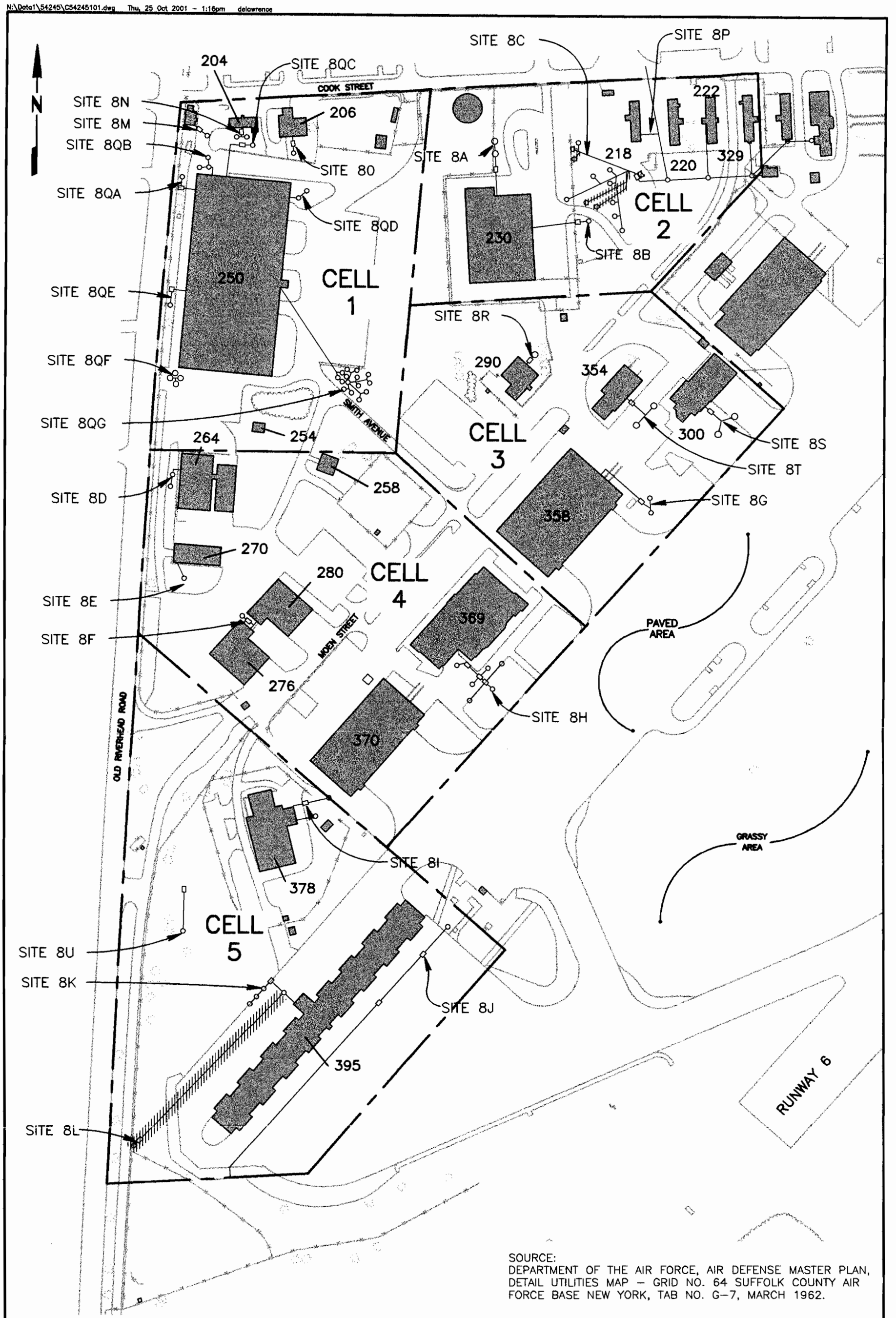


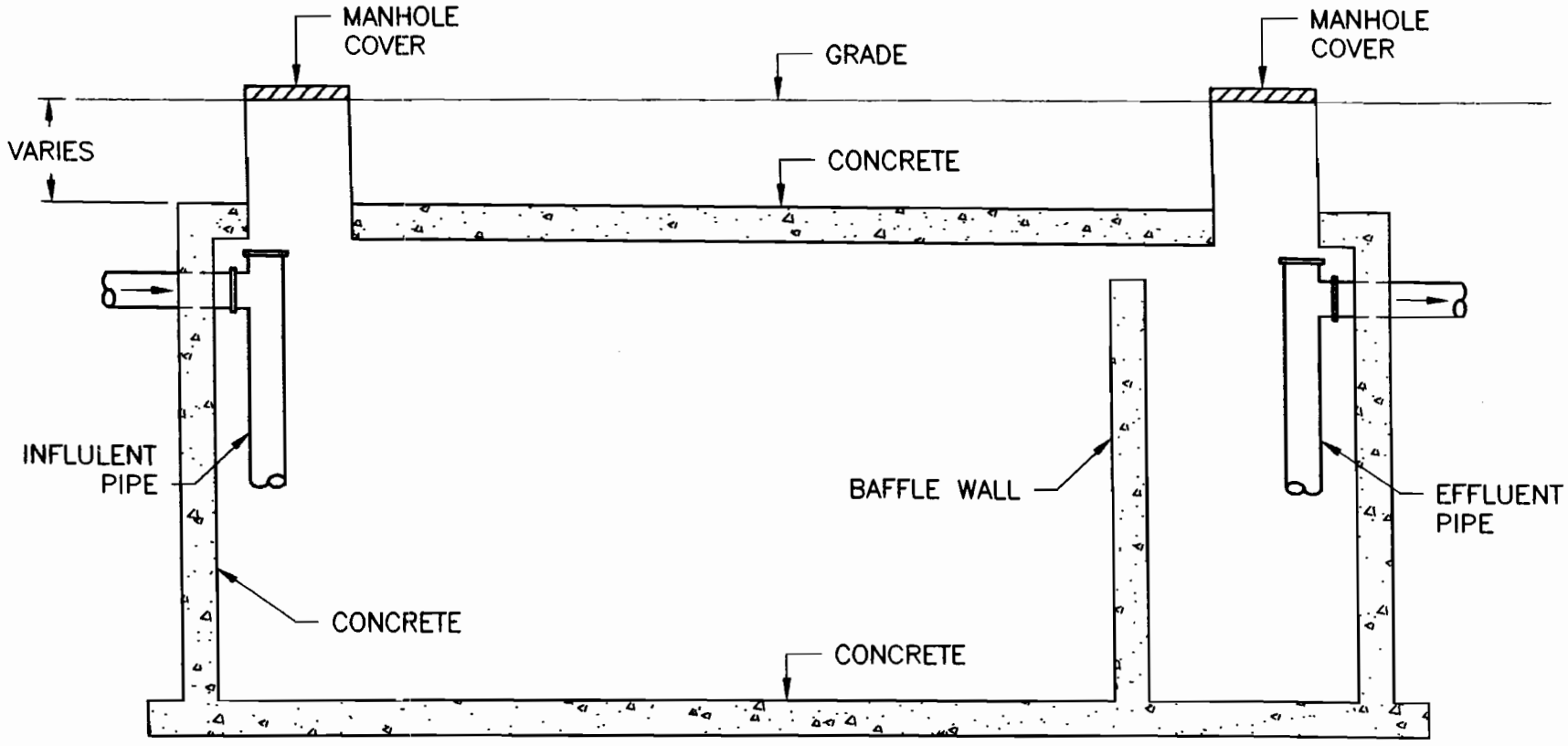
SOURCE:
DEPARTMENT OF THE AIR FORCE, AIR DEFENSE MASTER PLAN, DETAIL UTILITIES MAP – GRID NO. 64 SUFFOLK COUNTY AIR FORCE BASE NEW YORK, TAB NO. G–7, MARCH 1962.

LEGEND
- SEPTIC TANK
- CESSPOOL
- DISTRIBUTION LINES
- ABANDONED
- BUILDING

0 100 200 400
SCALE IN FEET

FIGURE 2
SITE LOCATION MAP
SITE 8 WORK PLAN
106TH RESCUE GROUP, NYANG
FRANCIS S. GABRESKI AIRPORT
WEST HAMPTON BEACH, NEW YORK

Harding ESE



TYPICAL SEPTIC TANK SECTION

NOT TO SCALE

FIGURE 3
TYPICAL SEPTIC TANK SECTION
SITE 8 WORK PLAN
106TH RESCUE GROUP, NYANG
FRANCIS S. GABRESKI AIRPORT
WEST HAMPTON BEACH, NEW YORK
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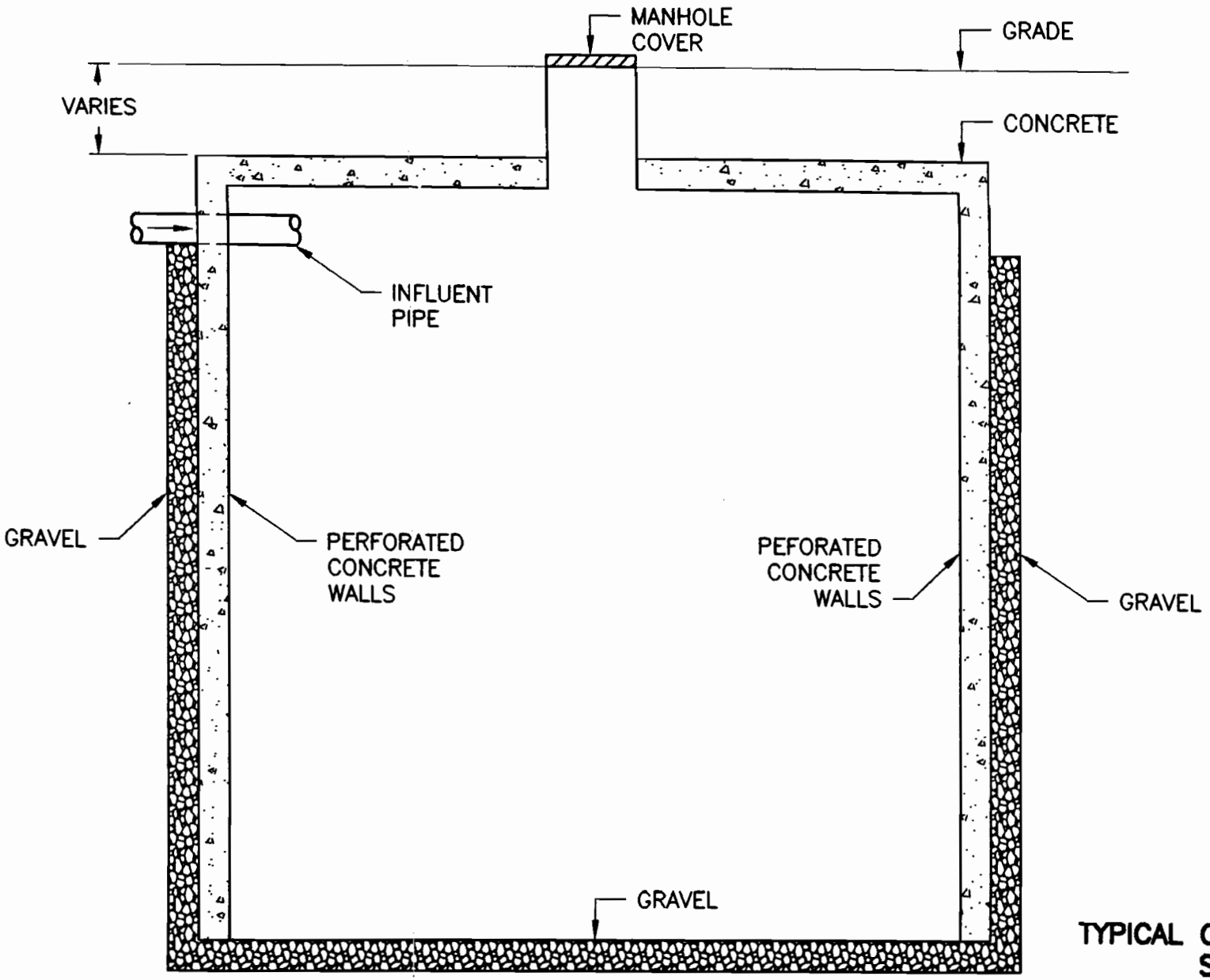

TYPICAL CESSPOOL SECTION

NOT TO SCALE

FIGURE 4
TYPICAL CESSPOOL SECTION
SITE 8 WORK PLAN
106TH RESCUE GROUP, NYANG
FRANCIS S. GABRESKI AIRPORT
WEST HAMPTON BEACH, NEW YORK

Harding ESE

1.2 Site 8 Summary

There are 21 subsites located within five cells at Site 8 (Figure 2). Table 1 summarizes the cell and subsite organization. The number of septic tanks and cesspools at each site are also included with volumetric size (if known) and other pertinent information as referenced on the Department of the Air Force, Air Defense Command Master Plan, Detail Utilities Map – Grid No. 64, Suffolk County Air Force Base New York, Tab No. G7, dated March 1962. The surface cover (asphalt, concrete, grass) for each site was verified during a site visit conducted by Harding ESE personnel on July 18, 2001. There are four subsites that are not included in this WP for closure – Subsites 8J, 8L, 8P, and 8U – as verified by Harding ESE during the site visit. Site 8J is currently in use as a storm drainage system. Site 8L was identified on Utilities Map No. 64 as previously abandoned. Site 8P does not appear to contain any septic system structures, only distribution lines. Site 8U is currently in use as a septic system for modular homes.

1.3 Remedial Investigation Summary and Conclusions

Previous investigations conducted at the Base, pertinent to Site 8, include:

- Survey of Cesspools and Septic Tanks, Subsites 8A through 8L (ABB-ES, 1991)
- Source Characterization, Site 8 – Old Base Septic Systems (ABB-ES, 1995)
- Site Investigation (SI), which included Site 8 (ABB-ES, 1997)
- Findings from the Ongoing Remedial Investigation (RI), which included Site 8 (Stone & Webster, 1998)
- Final RI, which included Site 8 (PEER Consultants, P.C., 2002)

The conceptual model for Site 8 assumed that liquid discharges to septic tanks, distribution boxes, and oil/mud traps could have been released to the subsurface through cracks in the walls of the structures. Liquid discharges to cesspools would have had direct access to the subsurface via their open bottoms and perforated sides. Media potentially affected by a release would include subsurface soils and groundwater (ABB-ES, 1997).

The RI field investigation included soil and groundwater sampling, focusing on areas of known and potential contamination identified in previous investigations at Site 8. The purpose of the RI sampling was to:

Table 1
Site 8 Septic System Subsites Summary

Work Plan
Remediation Activities, Site 8
106th Rescue Group
New York Air National Guard
Francis S. Gabreski Airport
Westhampton Beach, New York

Cell ID	Site ID	Septic Tanks[1]		Cesspools[1]		Distribution boxes[1]		Distribution lines[1]		Surface Cover[2]
		#	size	#	size	#	size	dia.	# of feet	
1	8M	1	UNK	1	UNK	0	NA	6"	25	Grass
1	8N	1	UNK	2	UNK	0	NA	6"	120	Grass
1	8O	1	1,500	1	4,760	0	NA	6"	35	Grass
1	8QA	1	808	1	2,310	0	NA	6"	50	Grass
1	8QB	0	NA	3	UNK	0	NA	8"	55	Asphalt
1	8QC	1	727	1	4,759	0	NA	6"	125	Grass
1	8QD	1	UNK	1	UNK	0	NA	6"	20	Grass
1	8QE	1	808	1	2,310	0	NA	6"	40	Asphalt
1	8QF	1	UNK	4	UNK	0	NA	6"	70	Asphalt
1	8QG	0	NA	15	UNK	1	UNK	6"	390	Grass
2	8A	0	NA	2	11,500	0	NA	6"	110	Grass
2	8B	1	3,000	1	11,500	0	NA	6"	85	Grass
2	8C	1	UNK	8	6,000	3	UNK	6"	475	Grass
2	8P	No Structures Shown On Site Utility Map[1]								
3	8G	1	3,840	2	13,536	1	UNK	8"	120	Asphalt
3	8R	1	UNK	1	UNK	0	NA	6"	30	Grass
3	8S	1	UNK	2	3,000	0	NA	4" 6"	30 40	Grass
3	8T	1	957	2	1,451	0	NA	6"	40	Asphalt
4	8D	0	NA	2	UNK	0	NA	6"	125	Asphalt
4	8E	0	NA	1	2,310	0	NA	6"	30	Grass
4	8F	1	897	1	3,384	0	NA	4"	40	Grass
4	8H	1	UNK	5	12,690	2	UNK	6"	210	Asphalt/Grass
5	8I	1	2,229	1	5,875	0	NA	UNK	UNK	Grass
5	8J	Currently Used For Storm Drainage[1,2]								
5	8K	1	1,000	3	3,000	0	NA	6"	150	Grass
5	8L	Structures Previously Abandoned[1,2]								
5	8U	Structures Currently In Use[2]								

[1] Information Obtained from Detail Utilities Map-Grid No. 64 for Suffolk County (Department of the Air Force, Air Defense Command Master Plan, Detail Utilities Map – Grid No. 64, Suffolk County Air Base New York, Tab No. G7, dated March 1962).

[2] Information Obtained during Harding ESE Site Visit on July 18, 2001.

Notes: UNK = Unknown
NA = Not Applicable

- define source areas for contamination identified in the SI,
- supplement SI data to define the nature and extent of soil and groundwater contamination,
- identify potential migration pathways, and
- monitor groundwater quality.

The RI identified the nature and extent of contaminants of concern (COCs) at Site 8 in soil and groundwater and quantified the potential human and ecological risk associated with exposure to these COCs.

The RI included a basewide risk assessment which considered average (central tendency) and reasonable maximum exposure scenarios for receptors at NYANG Site 8. Based on this conservative evaluation, using available data, human receptors at Site 8 will experience acceptable levels of exposure to noncancer and cancer causing chemicals in soil and groundwater (Stone & Webster, 1998). While the risk assessment indicates that there is no further action required at Site 8, the recommendation presented in this WP is to remove any remaining sludge and remove and/or abandon-in-place the Site 8 septic structures to eliminate the potential for these septic structures to be future sources of contamination to the surficial groundwater unit.

1.4 Project Objectives

The overall objective of the proposed action will be to remove any remaining sludge and close the old Base septic system at Site 8 of the Gabreski Airport. The closure activities will eliminate any future potential for migration of contaminants to the subsurface via the Site 8 septic system.

1.5 Work Plan Organization

This WP is organized into five major sections. The first section is this introduction, which provides background information and the project objectives. Section 2.0 provides a summary of each phase and the field activities that will occur to close the septic systems. Section 3.0 discusses permitting requirements. Section 4.0 presents the estimated schedule for implementing the construction work, and Section 5.0 presents references.

2.0 REMOVAL AND REMEDIATION ACTIVITIES

2.1 Phase 1 – Time-Critical Removal Action

Due to the need to provide access to specific areas on the base for construction activities, Sites 8C and 8B are scheduled for removal. Site 8QG is scheduled to be abandoned in place. These removal/closure activities shall be conducted in accordance with Suffolk County Department of Health Services Office of Pollution Control guidelines.

2.1.1 Locating Structures

The number and location of septic system structures are based on a Detail Utilities Map – Grid No. 64 for Suffolk County provided by the Base Engineer. The locations of these structures will be verified visually by access manholes. In the event manhole covers are not apparent, ground penetrating radar (GPR) devices will be used in an attempt to locate buried structures. Potential structures identified by GPR will be accessed by excavation. Structures shown to be abandoned will not be included in this work.

The soil removed above the structures to gain access will be field screened using a PID. The PID is used to determine the presence of contaminants. If screening results indicate the presence of potential contaminants, the soil will be stockpiled for disposition sampling. However, it is not anticipated that soils above the structures would contain contaminants and will be used as backfill material after the structures are filled with sand.

2.1.2 Removal of Liquid, Sediment or Sludge

Following the survey of the septic system structures, access will be made to determine the presence of liquid, sediment, or sludge. Any liquid or sediment/sludge will be removed and temporarily stored for disposition. If gross contamination is observed on the sidewalls, a pressure washer will be used to clean the sidewalls and removed for disposition.

2.1.3 Disposition Sampling

The liquid or sediment/sludge removed from the septic system structures will be placed in mobile tankers until disposition sampling results are obtained. Samples will be collected from each tanker as it is filled. The liquid will be sampled and analyzed for volatile organic compounds (VOCs) using EPA Methods 8240 or 8260 and total heavy metals in accordance with Suffolk County Department of Health Services Office of Pollution Control guidelines. Sludge/sediment removed from the structures will be held in lined

and covered containers until the appropriate analytical results are obtained for their disposition. Sludge/sediment samples will also be analyzed for VOCs, SVOCs and metals following TCLP extraction procedures.

2.1.4 Liquid, Sediment, or Sludge Disposal

Harding ESE will subcontract with a licensed waste hauler to properly dispose of any liquid or sediment/ sludge. Manifests will be used to track the waste from the Gabreski Airport to the disposal facility and document the proper disposal of the material.

2.1.5 Removal/Abandonment of Structures

Structures located in areas identified under Phase 1 for removal are those in subsites 8B and 8C. Area 8QG is identified for abandonment. Following the removal of any liquid, sediment or sludge, those structures which do not have a hard bottom (i.e., cesspools) shall be sampled to determine the proper endpoint according the Suffolk County guidelines. Those structures which present a hard bottom shall be cleaned and inspected for structural integrity prior to backfilling. Structures located in areas 8B and 8C shall be removed. Structures located in 8QG are to be abandoned due to their location and proximity to the primary base communication cable and natural gas service. The rings of each structure shall be removed to provide access to the bottom for sampling or cleaning. For those structures with soft bottoms the walls shall remain in place for safety and convenience if over excavation is necessary in pursuit of the proper endpoint. Upon obtaining adequate results in those structures identified for removal, the remaining structure shall be removed and the area backfilled with inert material (i.e., sand). All influent and effluent pipes will be plugged at their entry into each structure, with grout prior to filling.

There are two potential scenarios that will be encountered: (1) the structures will have access manholes flush with the surface, and (2) the structures will not have access manholes and will be buried beneath an estimated 2 to 3 feet of soil. If the structure has an access manhole, the cover and frame will be removed for disposal. An endpoint sample will then be acquired and analyzed as per Suffolk County guidelines. Upon obtaining the proper results, the structure will then be removed and the area backfilled to within two feet of the surface. The remaining two feet will be completed to match existing surface conditions in the area of the structure (i.e., asphalt, concrete or grass).

If the structure is buried beneath surface soils, these soils will be excavated to gain access to the structure. An endpoint sample will then be acquired and analyzed as per Suffolk County guidelines. Upon obtaining the proper results, the structures will then be removed and backfilled with sand as discussed above. The surface soils removed will be screened for potential contamination as discussed in Section

2.1.1. If screening results are negative, the soil will be used to backfill above the structure. If the soil indicates the presence of contaminants, the soil will be stockpiled for disposition sampling. The excavation will then be backfilled with clean fill material to match existing surface conditions in the area of the structure (i.e., asphalt, concrete, or grass).

2.1.6 Site Security

The Base at the Gabreski Airport is a secured location with limited access to the public. As construction activities occur at each subsite, access to the immediate area will be limited to authorized personnel to ensure the safety of base personnel. If excavations are left open, a safety boundary will be placed around the excavation in accordance with 29 Code of Federal Regulation (CFR) Part 1926. Manholes will not be left open at any time without the supervision of authorized personnel. Construction equipment and field monitoring equipment will be staged in one location during non-working hours.

2.1.7 Environmental Protection

During all construction activities, sediment control procedures will be put in place to avoid liquid, sediment or sludge from impacting site storm sewer systems. Stockpiled soils will be covered with plastic and surrounded with hay bales until disposed of or used as fill. If necessary, sediment control devices will be installed around potential receptors in the immediate area of construction.

2.1.8 Health and Safety

A task-specific Health and Safety Plan (HASP) has been prepared in conformance with the Harding ESE Health and Safety Program and is intended to meet the requirements of 29 CFR 1910.120 and 29 CFR 1926. A copy of this HASP is included in this WP as Appendix B. As such, the HASP addresses those activities associated with fieldwork and other operations for this project. Compliance with this HASP is required for all Harding ESE personnel. Contractor personnel entering the site will be shown a copy of this HASP for informational purposes. A copy of this HASP will be kept on-site at all times during field activities.

2.1.9 Required Permits

There are no permitting requirements anticipated for the proposed work.

2.2 Phase 2 – Interim Remedial Action

Based on conclusions from previous investigations discussed in Section 1.3 and current results, each of the remaining septic system structures will be closed in place with the exceptions of sites 8D, 8QF, 8M

and 8N. These remaining sites are scheduled for removal. These removal and closure activities will be conducted in accordance with Suffolk County Department of Health Services Office of Pollution Control guidelines as discussed above.

2.2.1 Locating Structures

The number and location of septic system structures are based on a Detail Utilities Map – Grid No. 64 for Suffolk County provided by the Base Engineer. The locations of these structures will be verified visually by access manholes. In the event manhole covers are not apparent, GPR devices will be used in an attempt to locate buried structures. Potential structures identified by GPR will be accessed by excavation. Structures shown to be abandoned will not be included in this work.

The soil removed above the structures to gain access will be field screened using a PID. The PID is used to determine the presence of contaminants. If screening results indicate the presence of potential contaminants, the soil will be stockpiled for disposition sampling. However, it is not anticipated that soils above the structures would contain contaminants and will be used as backfill material after the structures are filled with sand.

2.2.2 Removal of Liquid, Sediment, or Sludge

Following the survey of the septic system structures, access will be made to determine the presence of liquid, sediment, or sludge. Any liquid or sediment/sludge will be removed and temporarily stored for disposition. If gross contamination is observed on the sidewalls, a pressure washer will be used to clean the sidewalls and removed for disposition.

2.2.3 Disposition Sampling

The liquid or sediment/sludge removed from the septic system structures will be placed in mobile tankers until disposition sampling results are obtained. Samples will be collected from each tanker as it is filled. The liquid will be sampled and analyzed for volatile organic compounds (VOCs) using EPA Methods 8240 or 8260 and total heavy metals in accordance with Suffolk County Department of Health Services Office of Pollution Control guidelines. Sludge/sediment removed from the structures will be held in lined and covered containers until the appropriate analytical results are obtained for their disposition. Sludge/sediment samples will also be analyzed for VOCs, SVOCs and metals following TCLP extraction procedures.

2.2.4 Liquid, Sediment or Sludge Disposal

Harding ESE will subcontract with a licensed waste hauler to properly dispose of any liquid or sediment/ sludge. Manifests will be used to track the waste from the Gabreski Airport to the disposal facility and document the proper disposal of the material.

2.2.5 Removal/Abandonment of Structures

Structures located in areas identified under Phase 2 for removal are those in subsites 8D, 8M, 8N, and 8QF. The remaining subsites are identified for abandonment. Following the removal of any liquid, sediment or sludge, those structures were are identified for removal and which do not have a hard bottom (i.e., cesspools) shall be sampled to determine the proper endpoint according the Suffolk County guidelines. Those structures in areas identified for removal which present a hard bottom shall be cleaned and inspected for structural integrity prior to backfilling. Structures located in areas 8D, 8M, 8N and 8QF with a soft bottom shall be excavated to their proper endpoint. The rings of each structure shall be removed to provide access to the bottom for sampling or cleaning. For those structures with soft bottoms the walls shall remain in place for safety and convenience if over excavation is necessary in pursuit of the proper endpoint. Upon obtaining adequate results in those structures identified for removal, the remaining structure shall be abandoned and the area backfilled with inert material (i.e., sand). All influent and effluent pipes will be plugged at their entry into each structure, with grout prior to filling.

In those areas not identified for removal in Phase 2, the structures shall be abandoned. The rings shall be removed to provide access for cleaning and inspection. Each of the remaining structures shall then be cleaned and backfilled as determined by historical and current analyses. All influent and effluent pipes will be plugged at their entry into each structure, with grout prior to filling. The area above the structure shall be returned to the previous condition.

There are two potential scenarios that will be encountered: (1) the structures will have access manholes flush with the surface, and (2) the structures will not have access manholes and will be buried beneath an estimated 2 to 3 feet of soil. If the structure has an access manhole, the cover and frame will be removed for disposal. An endpoint sample will then be acquired for those structures in areas 8D, 8N, 8M and 8QF and analyzed as per Suffolk County guidelines. Upon obtaining the proper results, the structure will then be abandoned and the area backfilled to within two feet of the surface. The remaining two feet will be completed to match existing surface conditions in the area of the structure (i.e., asphalt, concrete or grass).

If the structure is buried beneath surface soils, these soils will be excavated to gain access to the structure. An endpoint sample will then be acquired and analyzed as per Suffolk County guidelines for areas 8D, 8N, 8M and 8QF. Upon obtaining the proper results, the structures will then be abandoned and backfilled with sand as discussed above. The surface soils removed will be screened for potential contamination as discussed in Section 2.1.1. If screening results are negative, the soil will be used to backfill above the structure. If the soil indicates the presence of contaminants, the soil will be stockpiled for disposition sampling. The excavation will then be backfilled with clean fill material to match existing surface conditions in the area of the structure (i.e., asphalt, concrete, or grass).

2.2.6 Site Security

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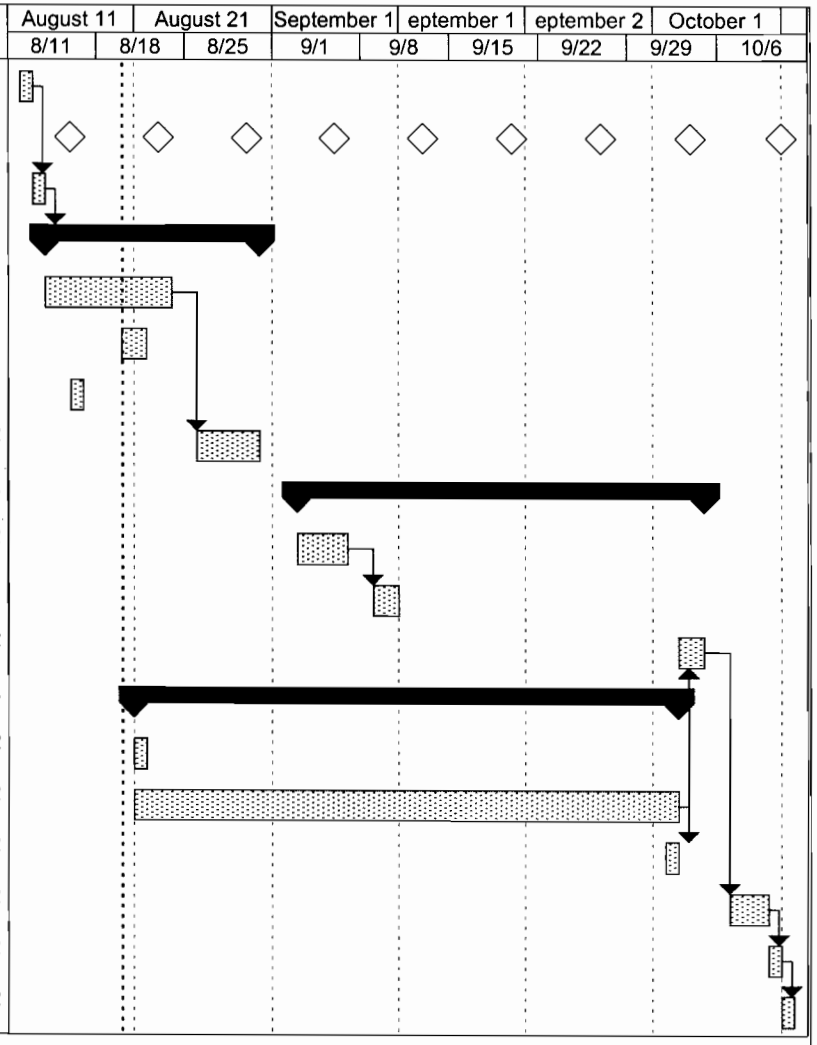
2.2.9 Required Permits

There are no permitting requirements anticipated for the proposed work.

3.0 PROPOSED IMPLEMENTATION SCHEDULE

Figure 5 presents a forecasted schedule for implementing the proposed closure activities. Initiation of the fieldwork task will begin approximately 6 months after the initial planning tasks. Upon approval of the WP, procurement of contractors, equipment, and materials will take place. Construction activities are tentatively estimated to take four months; however, this schedule will be better known as procurement of contractors is completed. Following completion of construction activities, a Completion Report will be prepared that documents the activities completed.

ID	Task Name	Duration	Start	Finish
1	Greeting, Staging & Scheduling	1 day	Mon 8/12/02	Mon 8/12/02
2	**Progress/Future Report**	**39 days**	**Fri 8/16/02**	**Fri 10/11/02**
12	Mobilization	1 day	Tue 8/13/02	Tue 8/13/02
13	**Phase 1 - Time Critical Removal Action (TCRA)**	**13 days**	**Wed 8/14/02**	**Fri 8/30/02**
14	1A - Removal	8 days	Wed 8/14/02	Fri 8/23/02
15	GPR Survey	2 days	Tue 8/20/02	Wed 8/21/02
16	Sampling	1 day	Fri 8/16/02	Fri 8/16/02
17	1B - Abandonment	5 days	Mon 8/26/02	Fri 8/30/02
18	**Phase 2 - Interim Remedial Action (IRA)**	**24 days**	**Tue 9/3/02**	**Fri 10/4/02**
19	2A - Abandonment	4 days	Tue 9/3/02	Fri 9/6/02
20	2B - Abandonment	2 days	Mon 9/9/02	Tue 9/10/02
21	2C - Removal	2 days	Thu 10/3/02	Fri 10/4/02
22	**Public Meeting/Review Period**	**30 days**	**Wed 8/21/02**	**Wed 10/2/02**
23	Work Plan, Fact Sheets & Public Notice Issued	1 day	Wed 8/21/02	Wed 8/21/02
24	Public Review Period	30 days	Wed 8/21/02	Wed 10/2/02
25	Public Meeting	1 day	Wed 10/2/02	Wed 10/2/02
26	Close Out Remaining Structures	3 days	Mon 10/7/02	Wed 10/9/02
27	Punch Out	1 day	Thu 10/10/02	Thu 10/10/02
28	Demobilization	1 day	Fri 10/11/02	Fri 10/11/02



Project: ANG - Gabreski
Date: Tue 8/20/02

Task
Split
Progress
Milestone
Summary
Rolled Up Task
Rolled Up Split
Rolled Up Milestone
Rolled Up Progress
External Tasks
Project Summary

4.0 REFERENCES

ABB-ES, 1991. *Site Investigation Technical Memorandum, Interim Report of Findings for Cesspool/Septic Tank Survey; Field-Screening Results*. Prepared for National Guard Bureau, Andrews AFB, Maryland, submitted to HAZWRAP Support Contractor Office, managed by MMES (October 1).

ABB-ES, 1995. Technical memorandum no. 10, Francis S. Gabreski Airport, Westhampton Beach, New York.

ABB-ES, 1997. Site Investigation Report, prepared for the 106th Rescue Group, New York Air National Guard, Francis S. Gabreski Airport, Westhampton Beach, New York.

Air Force (Department of the), March 1962. Air Defense Command Master Plan, Detail Utilities Map No. 64, Suffolk County Air Force Base New York, Tab No. G7.

Environmental Protection Agency (United States) (EPA), 1990. *U.S. Environmental Protection Agency (EPA Superfund Removal Procedures -- Action Memorandum Guidance.*

Code of Federal Regulations, 1999. 29 CFR Part 1926 – Occupational Safety and Health Standards for the Construction Industry.

Stone & Webster, 1998. *Draft Remedial Investigation, Sites 4, 5, 8, and 9, 106th Rescue Group; New York Air National Guard, Francis S. Gabreski Airport, Westhampton Beach, New York.* Prepared for Installation Restoration Program Air National Guard Readiness Center, Andrews Air Force Base, Maryland. Prepared under contract no. DAHA90-94-D-0008, delivery order no. 013 (November).

Suffolk County Department of Health Services Office of Pollution Control, September 1996. *Guidelines For Equipment and Procedures For Cleaning Out Contaminated Leaching Pools.*

APPENDIX A

ACTION MEMORANDUM

FINAL

ACTION MEMORANDUM
REMEDIATION ACTIVITIES, SITE 8
PHASE 1: TIME CRITICAL REMOVAL ACTION
PHASE 2: INTERIM REMEDIAL ACTION
106TH RESCUE GROUP
NEW YORK AIR NATIONAL GUARD
FRANCIS S. GABRESKI AIRPORT
WESTHAMPTON BEACH, NEW YORK

Prepared for:

Air National Guard/CEVR
3500 Fetchet Avenue
Andrews AFB, Maryland 20762

Prepared by:

Harding ESE, Inc.
1400 Centerpoint Blvd., Ste. 158
Knoxville, TN 37932

Prepared Under:

Contract No. GS-10F-0093J
Delivery Order No. DAKF11-01-F-0183
HQ ANG Project No. WKVB2001-7135A

August 2002

Harding ESE, Inc.
Engineering and Environmental Services
1400 Centerpoint Blvd., Ste. 158
Knoxville, TN 37932

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ACRONYM LIST

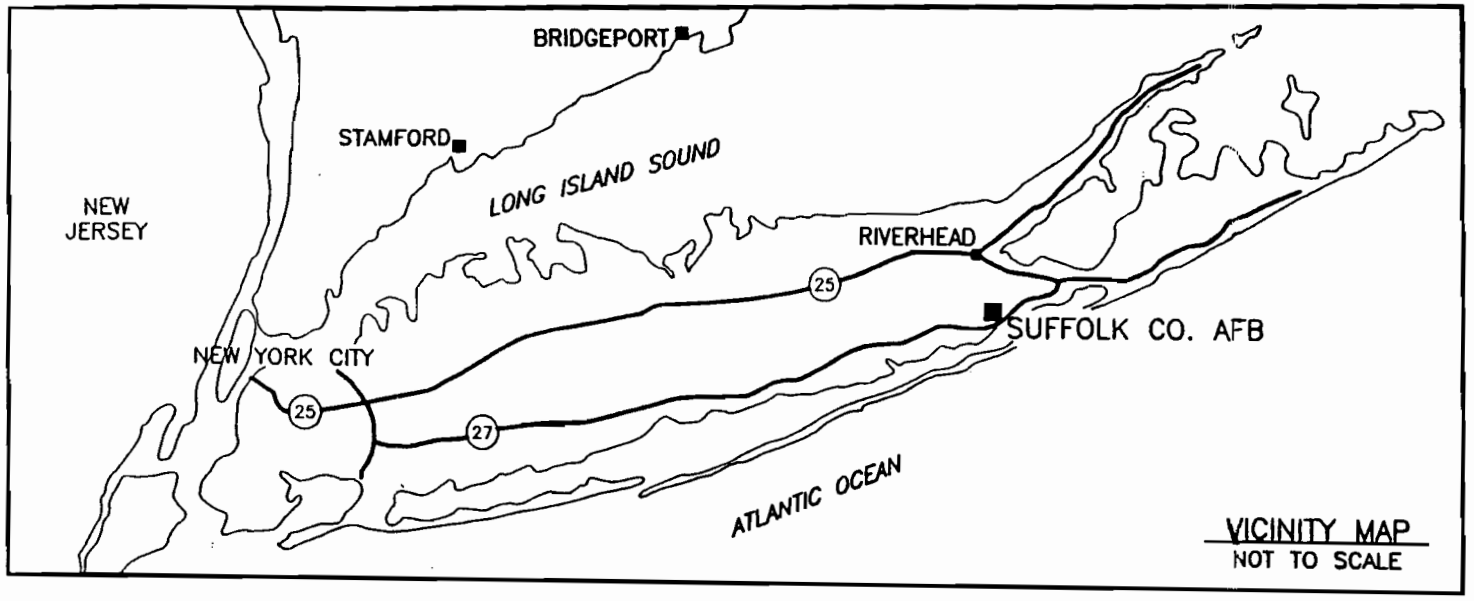
ABB-ES	ABB Environmental Services, Inc.
AM	Action Memorandum
Base	NYANG air base at Francis S. Gabreski Airport
COC	contaminant of concern
EPA	Environmental Protection Agency (United States)
IRP	Installation Restoration Program
NGB	National Guard Bureau
NYANG	New York Air National Guard
NYSDEC	New York State Department of Environmental Conservation
PID	photoionization detector
RI	Remedial Investigation
SI	Site Investigation
SVOC	semivolatile organic compound
VOC	volatile organic compound

1.0 PURPOSE

Harding ESE has prepared this Action Memorandum (AM) for the National Guard Bureau (NGB) for the Installation Restoration Program (IRP) Site 8 at the New York Air National Guard (NYANG) air base (Base) at Francis S. Gabreski Airport in Westhampton Beach, Suffolk County, New York (see Figure 1, Location Map and Figure 2, Site Location Map). Site 8 is the Old Base Septic System. The purpose of the AM is to provide a concise written record of all factors which support the recommended removal action presented herein for Site 8. The recommended action is removal of any remaining sludge followed by removal or abandonment-in-place of all Site 8-related septic structures. This AM will describe the following aspects of Site 8:

- site history,
- current activities,
- health and environmental threats, and
- proposed action and cost.

This AM was prepared under the terms of Contract No. GS-10F-0093J, and conforms to the format in the *U.S. Environmental Protection Agency (EPA) Superfund Removal Procedures – Action Memorandum Guidance (*1990*).* This AM is based on findings from the ongoing remedial investigation which included Site 8 (Stone & Webster, 1998).



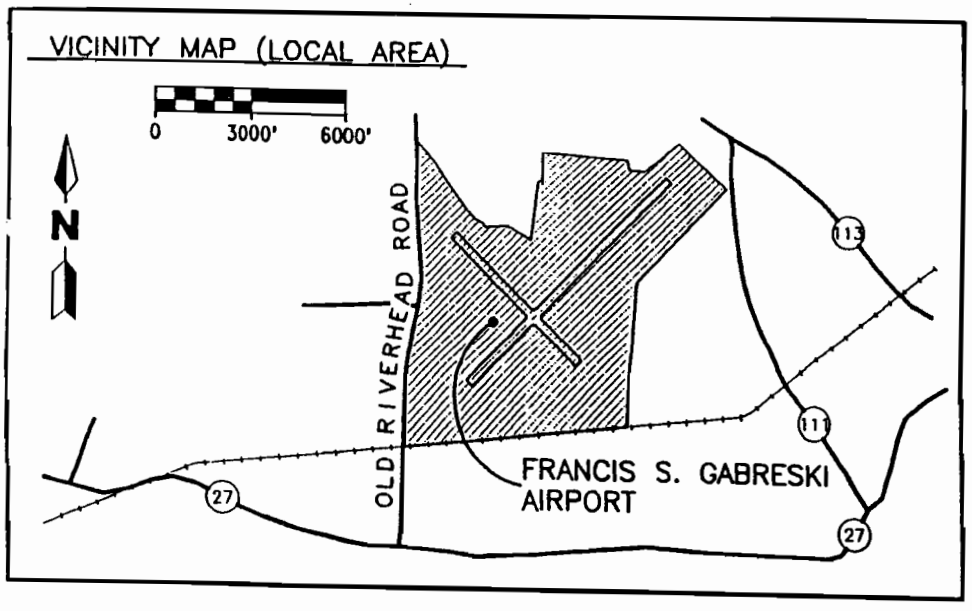
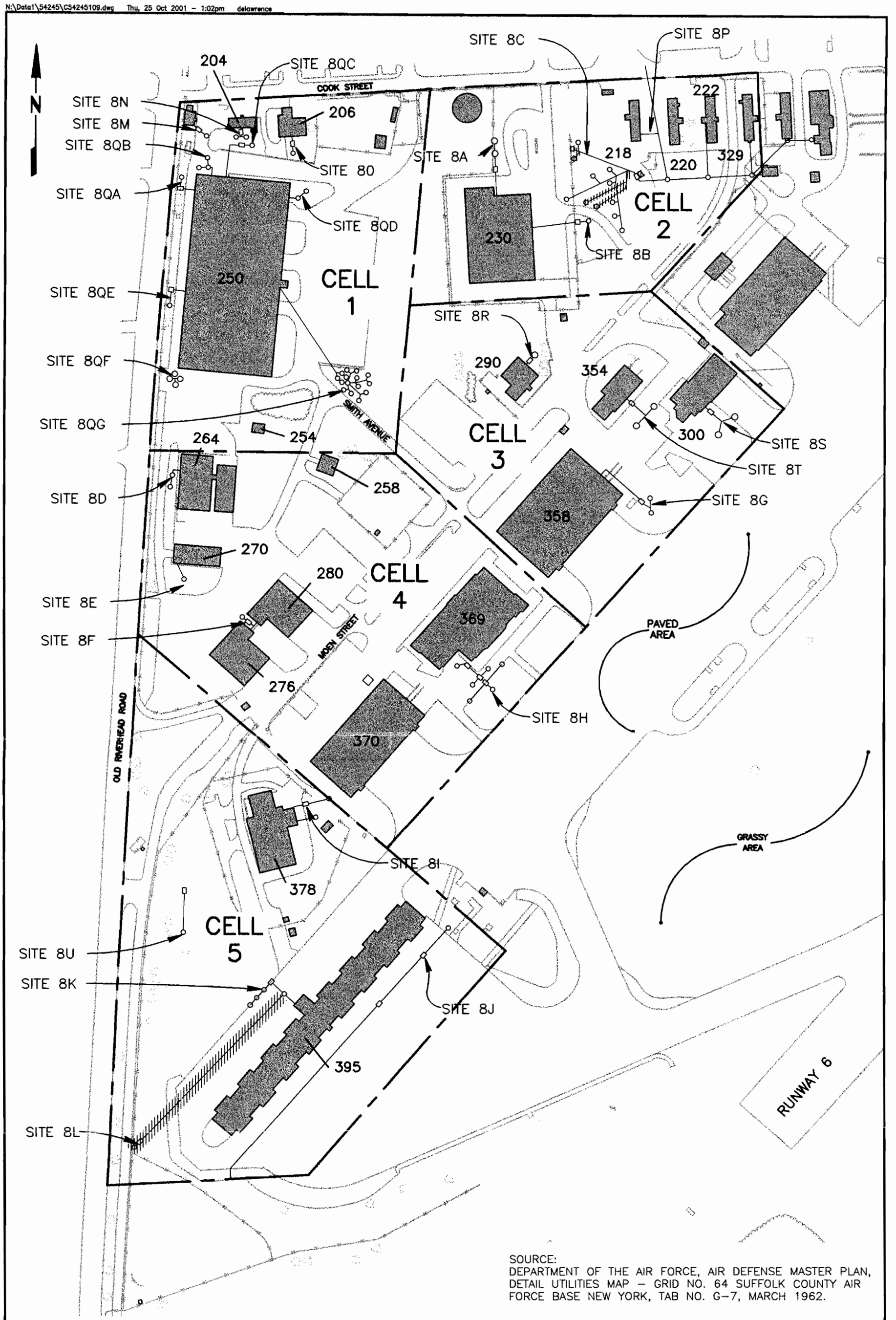


FIGURE 1
LOCATION MAP
SITE 8 ACTION MEMORANDUM
106TH RESCUE GROUP, NYANG
FRANCIS S. GABRESKI AIRPORT
WEST HAMPTON BEACH, NEW YORK

HARDING ESE

N:\Data1\54245\C54245109.dwg Thu, 25 Oct 2001 - 1:02pm delawrence



SOURCE:
DEPARTMENT OF THE AIR FORCE, AIR DEFENSE MASTER PLAN, DETAIL UTILITIES MAP – GRID NO. 64 SUFFOLK COUNTY AIR FORCE BASE NEW YORK, TAB NO. G-7, MARCH 1962.

LEGEND
- SEPTIC TANK
- CESSPOOL
- DISTRIBUTION LINES
- ABANDONED
- BUILDING

0 100 200 400
SCALE IN FEET

FIGURE 2
SITE LOCATION MAP
SITE 8 ACTION MEMORANDUM
106TH RESCUE GROUP, NYANG
FRANCIS S. GABRESKI AIRPORT
WEST HAMPTON BEACH, NEW YORK

Harding ESE

2.0 SITE CONDITIONS AND BACKGROUND

2.1 Facility History

Francis S. Gabreski Airport, formerly known as Suffolk County Airport, is located on Riverhead Road approximately two miles north of the Atlantic Ocean shoreline in Westhampton Beach, New York on the eastern portion of Long Island (Figure 1). The airport is bounded to the north by undeveloped land, to the east by Quogue Wildlife Refuge, to the west by Old Riverhead Road, and to the south by Long Island Railroad.

The airport encompasses approximately 11,500 acres. The property was acquired in 1942 by the Civil Aeronautics Authority and was used for military training, aircraft maintenance, and armed forces support until 1969. Suffolk County purchased the property in 1969 and began operating the Suffolk County Airport. Suffolk County began leasing portions of the airport to tenants in 1970. Since 1970, the NYANG has leased approximately 70 acres of the airport from Suffolk County.

The NYANG Base consists of runways, hangers, and maintenance service facilities located on the southwest side of the airport. The Base is currently home to the 106th Rescue Group.

2.2 Site 8 Description

Site 8 is a composite of approximately 86 underground structures consisting of cesspools, septic tanks, distribution boxes, oil/mud traps, and dry wells, which constituted the septic system at the Base. In the past, some of these structures received discharges from buildings where industrial and/or equipment maintenance activities were conducted. Because Site 8 constitutes a large area of the facility, it has been subdivided into Cells 1 through 5 (Figure 2). The cells are divided into 21 subsites designated Sites 8A through 8U. Site 8Q, associated with Building 250, is further divided into 7 systems designated as Subsites 8QA through 8QG. Volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs) were detected in sludge and liquid samples obtained from some structures (ABB Environmental Services, Inc. [ABB-ES], 1991).

Site 8 is listed as a New York State Class 2 Inactive Hazardous Waste Site Identification Number 152148 in the "Registry of Inactive Hazardous Waste Sites" (New York State Department of Environmental Conservation [NYSDEC], 1993).

2.3 Previous Investigations

Previous investigations conducted at the Base, pertinent to Site 8 include:

- Survey of Cesspools and Septic Tanks, Subsites 8A through 8L (ABB-ES, 1991),
- Source Characterization, Site 8 – Old Base Septic Systems (ABB-ES, 1995)
- Site Investigation (SI), which included Site 8 (ABB-ES, 1997)
- Findings from the Ongoing Remedial Investigation (RI), which included Site 8 (Stone & Webster, 1998)
- Remedial Investigation (RI) Report, which included Site 8 (PEER Consultants, P.C., 2002)

2.4 Remedial Investigation Summary of Nature and Extent of Contamination

The conceptual model for Site 8 assumed that liquid discharges to septic tanks, distribution boxes, and oil/mud traps could have been released to the subsurface through cracks in the walls of the containers. Liquid discharges to cesspools and drywells would have had direct access to the subsurface via their open bottoms and perforated sides. Media potentially affected by a release include subsurface soils and groundwater (ABB-ES, 1997).

The Remedial Investigation (RI) field investigation included soil and groundwater sampling, focusing on areas of known and potential contamination identified in previous investigations at Site 8. The purpose of the RI sampling was to:

- define source areas of contamination identified in the Site Investigation (SI),
- supplement SI data to define the nature and extent of soil and groundwater contamination,
- identify potential migration pathways, and
- monitor groundwater quality.

The RI identified the nature and extent of contaminants of concern (COCs) at Site 8 in soil and groundwater, and quantified the potential human and ecological risk associated with exposure to these COCs.

The RI included a basewide risk assessment which considered average (central tendency) and reasonable maximum exposure scenarios for receptors at NYANG Site 8. Based on this conservative evaluation, using available data, human receptors at Site 8 will experience acceptable levels of exposure to noncancer and cancer causing chemicals in soil and groundwater (Stone & Webster, 1998). While the risk assessment indicates that there is no further action required at Site 8, the recommendation presented in this AM is to remove any remaining sludge and to remove or abandon-in-place the Site 8 septic structures to eliminate the potential for these septic structures to be future sources of contamination to the surficial groundwater unit.

2.5 Previous Actions

Following the initial Site 8 source characterization, the NYANG reportedly evacuated and disposed of the contents from the structures in which potentially hazardous materials were detected. Documentation of the removal actions was not available (Stone & Webster, 1998).

2.6 State and Local Authorities' Involvement

The Suffolk County Department of Health Services is responsible for reviewing and approving this Action Memorandum and the associated Work Plan.

3.0 THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

As part of the RI, a basewide risk assessment was performed which considered average (central tendency) and reasonable maximum exposure scenarios for receptors at Site 8. Based on this conservative evaluation, using available data, human receptors at Site 8 will experience acceptable levels of exposure to noncancer and cancer causing chemicals in soil and groundwater (Stone & Webster, 1998). While the risk assessment indicates that there is no further action required at Site 8, the recommendation presented in this AM is to remove any remaining sludge and remove or abandon-in-place the Site 8 septic structures to eliminate the potential for these septic structures to be future sources of contamination to the surficial groundwater unit.

4.0 ENDANGERMENT DETERMINATION

Contaminated sludge (if any) that remains in the Site 8 septic structures, and structures that are not abandoned properly, could serve as a potential source for future contamination to the surficial groundwater unit.

5.0 PROPOSED ACTION AND ESTIMATED COSTS

The recommended action is removal of remaining sludge followed by abandonment or removal of the Site 8-related septic structures shown in Table 1. This recommendation is made based on the findings, conclusions, and recommendations presented in the RI Report (Stone & Webster, 1998). Additionally, Harding ESE conducted a site visit on July 18 - 20, 2001, during which time a visual inspection of each subsite was conducted and meetings were held with the Base Environmental Officer and the Base Civil Engineer. Additional information obtained during the site visit indicated several subsites that do not require any action. Base utility drawings indicate that Subsite 8J is a storm drain system (not associated with the Old Base Septic System), Subsite 8L has already been abandoned, and Subsite 8P has no septic structures. Subsite 8U is currently in use by modular homes positioned nearby.

For the subsites, which are identified for removal, the following tasks would represent the typical approach:

- Using Base utility drawings, septic structures associated with each subsite will be field located.
- As necessary, access to septic structures will be obtained through excavation. The excavated material will be screened with a photoionization detector (PID) for presence of VOCs. Since the excavated material overlies the septic structure, it is anticipated that this material has very low potential for contamination associated with the Base Septic System; therefore, it is anticipated that this material will be used as clean fill if the PID does not detect VOCs.
- As access is obtained to each septic structure, a visual inspection will be made for presence of liquids and/or sludge. If liquid/sludge is present, the material will be removed prior to removal. Removed material will be disposed of off site in accordance with applicable regulatory requirements.
- Septic structures will be sampled, as required, and removed. Each excavated area will then be backfilled with sand or other acceptable non-degrading, non-compressible fill material. Distribution lines, mud traps, and distribution boxes will be abandoned by plugging the distribution lines in a manner that is acceptable to the local regulatory officials.

Table 1
Site 8 Septic System Subsites Summary

Action Memorandum
Remediation Activities, Site 8
106th Rescue Group
New York Air National Guard
Francis S. Gabreski Airport
Westhampton Beach, New York

Cell ID	Site ID	Septic Tanks[1]		Cesspools[1]		Distribution boxes[1]		Distribution lines[1]		Surface Cover[2]
		#	size	#	size	#	size	dia.	# of feet	
1	8M	1	UNK	1	UNK	0	NA	6"	25	Grass
1	8N	1	UNK	2	UNK	0	NA	6"	120	Grass
1	8O	1	1,500	1	4,760	0	NA	6"	35	Grass
1	8QA	1	808	1	2,310	0	NA	6"	50	Grass
1	8QB	0	NA	3	UNK	0	NA	8"	55	Asphalt
1	8QC	1	727	1	4,759	0	NA	6"	125	Grass
1	8QD	1	UNK	1	UNK	0	NA	6"	20	Grass
1	8QE	1	808	1	2,310	0	NA	6"	40	Asphalt
1	8QF	1	UNK	4	UNK	0	NA	6"	70	Asphalt
1	8QG	0	NA	15	UNK	1	UNK	6"	390	Grass
2	8A	0	NA	2	11,500	0	NA	6"	110	Grass
2	8B	1	3,000	1	11,500	0	NA	6"	85	Grass
2	8C	1	UNK	8	6,000	3	UNK	6"	475	Grass
2	8P	No Structures Shown On Site Utility Map[1]								
3	8G	1	3,840	2	13,536	1	UNK	8"	120	Asphalt
3	8R	1	UNK	1	UNK	0	NA	6"	30	Grass
3	8S	1	UNK	2	3,000	0	NA	4" 6"	30 40	Grass
3	8T	1	957	2	1,451	0	NA	6"	40	Asphalt
4	8D	0	NA	2	UNK	0	NA	6"	125	Asphalt
4	8E	0	NA	1	2,310	0	NA	6"	30	Grass
4	8F	1	897	1	3,384	0	NA	4"	40	Grass
4	8H	1	UNK	5	12,690	2	UNK	6"	210	Asphalt/Grass
5	8I	1	2,229	1	5,875	0	NA	UNK	UNK	Grass
5	8J	Currently Used For Storm Drainage[1,2]								
5	8K	1	1,000	3	3,000	0	NA	6"	150	Grass
5	8L	Structures Previously Abandoned[1,2]								
5	8U	Structures Currently In Use[2]								

[1] Information Obtained from Detail Utilities Map-Grid No. 64 for Suffolk County (Department of the Air Force, Air Defense Command Master Plan, Detail Utilities Map – Grid No. 64, Suffolk County Air Base New York, Tab No. G7, dated March 1962).

[2] Information Obtained during Harding ESE Site Visit on July 18, 2001.

Notes: UNK = Unknown
NA = Not Applicable

For the subsites, which include septic structures proposed for abandonment, the following tasks would represent the typical approach:

- Using Base utility drawings, septic structures associated with each subsite will be field located.
- As necessary, access to septic structures will be obtained through excavation. The excavated material will be screened with a PID for presence of VOCs. Since the excavated material overlies the septic structure, it is anticipated that this material has very low potential for contamination associated with the Base Septic System; therefore, it is anticipated that this material will be used as clean fill if the PID does not detect VOCs.
- As access is obtained to each septic structure, a visual inspection will be made for presence of liquids and/or sludge. If liquid/sludge is present, the material will be removed prior to abandonment. Removed material will be disposed of off site in accordance with applicable regulatory requirements.
- Septic structures will be abandoned in place by filling them with sand or other acceptable non-degrading, non-compressible fill material. Distribution lines, mud traps, and distribution boxes will be abandoned by plugging the distribution lines in a manner that is acceptable to the local regulatory officials.

In summary, the rationale supporting the abandonment of the remaining Site 8 septic structures as the recommended approach is:

- Contaminated sludge (if any) that remains in the Site 8 septic structures, and structures that are not abandoned properly, could serve as a potential source for future contamination to the surficial groundwater unit.
- Specific subsites have been identified for removal due to time constraints caused from impending construction activities.
- Harding ESE's visual inspection of the Site 8 subsites indicated that many of the subsites are in locations where access is severely limited due to utilities, structures, and paved areas, leading to abandonment being the most feasible and cost effective option.
- Harding ESE's discussions with the Base Civil Engineer and Base Environmental Officer indicate a preference for abandonment of septic structures, to minimize disruptions to Base operations.

The estimated cost to locate and abandon the septic structures as shown in Table 1, and restore the site to its original surface conditions, is approximately $890 thousand.

Pending regulatory approval of the Work Plan and this Action Memorandum, it is anticipated that fieldwork to implement the abandonment activities can begin within 45 days following these approvals.

6.0 EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

See Section 4.0.

7.0 OUTSTANDING POLICY ISSUES

None.

8.0 ENFORCEMENT

All work described herein will be performed by Harding ESE providing services for this removal action to the NGB under contract to the Army Atlanta Contracting Center.

9.0 RECOMMENDATION

This AM represents the selected removal action for Site 8 at the NYANG Base at Francis S. Gabreski Airport in Westhampton Beach, Suffolk County, New York, developed in accordance with *U.S. EPA Superfund Removal Procedures – Action Memorandum Guidance* (1990). The selected removal action is removal of any remaining sludge followed by removal or abandonment-in-place of the Site 8-related septic structures. This decision is based on the comprehensive findings from the ongoing remedial investigation as presented in the Draft RI Report (Stone & Webster, 1998).

10.0 REFERENCES

ABB-ES, 1995. Technical memorandum no. 10, Francis S. Gabreski Airport, Westhampton Beach, New York.

ABB-ES, 1997. Site Investigation Report, prepared for the 106th Rescue Group, New York Air National Guard, Francis S. Gabreski Airport, Westhampton Beach, New York.

Air Force (Department of the), March 1962. Air Defense Command Master Plan, Detail Utilities Map No. 64, Suffolk County Air Force Base New York, Tab No. G7.

Environmental Protection Agency (United States) (EPA), 1990. *U.S. Environmental Protection Agency (EPA Superfund Removal Procedures – Action Memorandum Guidance.*

NYSDEC, 1993. Inactive Hazardous Waste Disposal Sites in New York State, Annual Report. Division of Hazardous Waste Remediation, Albany, New York (April).

NYSDEC, 1993. "Registry of Inactive Hazardous Waste Sites".

Stone & Webster, 1998. *Draft Remedial Investigation, Sites 4, 5, 8, and 9, 106th Rescue Group; New York Air National Guard, Francis S. Gabreski Airport, Westhampton Beach, New York.* Prepared for Installation Restoration Program Air National Guard Readiness Center, Andrews Air Force Base, Maryland. Prepared under contract no. DAHA90-94-D-0008, delivery order no. 013 (November).

Suffolk County Department of Health Services Office of Pollution Control, September 1996. *Guidelines For Equipment and Procedures For Cleaning Out Contaminated Leaching Pools.*

APPENDIX B

SITE SPECIFIC HEALTH AND SAFETY PLAN

Harding ESE
Health and Safety Plan

Site:_ Francis S. Gabreski Airport Job Number: 54245 Task 2 Contact: Cindy Sundquist

Street Address: Westhampton Beach, New York

Proposed Date(s) of Work: March 2002 through July 2002

Prepared by: Louis Barrentine Date: 10/17/01

*Approved by:_____ Date:_____

Proposed Activity(s):Fill Septic System Structures (Septic Tanks & Cesspools) with sand and backfill above structures.

Known or Suspected Chemicals (include PELs): Low Level VOCs & SVOCs

*Approval also serves as certification of a Hazard Assessment as required by 29 CFR 1910.132

HAZARD EVALUATION (Check all that apply):

Hazard Estimation:	[ ] Serious	[ ] Moderate	[X] Low	[ ] Unknown	[ ] None				
Exposure Route(s):	[ ] Dermal	[X] Inhalation	[ ] Ingestion	[ ] Puncture					
Contaminant Location(s):	[ ] Surface	[ ] Underground	[X] Soil	[X] Sediment	[ ] Water				
	[ ] Tank	[ ] Other (list):_____							
Health Hazard(s):	[ ] Liquid	[ ] Solid	[ ] Sludge	[ ] Corrosive	[ ] Ignitable				
	[X] Volatile	[ ] Radioactive	[ ] Reactive	[ ] Unknown					
Safety Hazard(s):	[ ] Height	[X] Equipment	[ ] Cold Stress	[X] Noise	[ ] Eye				
	[ ] Near Water	[X] Confined Space	[X] Heat Stress	[X] Machinery	[ ] Burns				
	[X] Lifting	[ ] Slips/Falls	[ ] Other (list):_____						

EQUIPMENT (check all that apply): Initial Level of Personal Protection:_____

X = Required for initial Level of PPE, # = Required for Upgrade only

PPE Selected:	[ ] Cartridge Respirator	[ ] Coveralls	[ ] Inner Gloves
	type_____	[X] Safety Glasses	type:_____
	[ ] Escape Respirator	[ ] Safety Goggles	[ ] Outer Gloves
	[X] Safety Boots/Shoes	[ ] Face Shield	type:_____
	[ ] Chemical Resistant Boots	[X] Hard Hat	[ ] Tyveks
	[ ] Disposible Boot Covers	[X] Ear Protection	type:_____
	type:_____	[ ] Other (list):_____	
Monitoring Equipment:	[X] PID	[ ] Respirable Dust Meter	[ ] Dosimeter Badge
	[ ] FID	[ ] Draeger Tubes	[ ] Radiation Alert Meter
	[X] LEL/Oxygen Meter	[ ] list:_____	
	[ ] Hydrogen Sulfide Meter	[ ] Other (list):_____	
Emergency Equipment:	[X] First Aid Kit	[ ] Fire Extinguisher	[ ] Eye Wash
	[ ] Other (list):_____		

CONTAMINANT LEVELS FOR MODIFICATION OF PROTECTIVE EQUIPMENT: Not Applicable

DECONTAMINATION/DISPOSAL: All personnel and/or equipment leaving contaminated sites are subject to decontamination. Under no circumstances (except emergency evacuation) will personnel be allowed to leave the site prior to decontamination. The decontamination procedures to be used at the site are as follows: _____
Equipment will pressure washed prior to leaving site a completion of project.

EMERGENCY MEDICAL TREATMENT/FIRST AID: First aid will be rendered to any person injured on-site, as appropriate. The injured person will then be transported to a medical facility for further examination and/or treatment. An ambulance will be used to transport the injured person to the hospital unless one is not readily available or could result in excessive delay. In this case, other transport is authorized. Under no circumstances will injured persons transport themselves to a medical facility for for emergency treatment.

EMERGENCY EVACUATION: In the event of an emergency requiring evacuation, the HSO assumes the role of on-site coordinator. Evacuation responses will occur at three levels: (1) withdraw from the immediate work area (100+ feet upwind); (2) site evacuation; and (3) evacuation of surrounding area. If the residences and commercial operations require evacuation, the local agencies will be notified and assistance requested. Designated on-site personnel will initiate evacuation of the immediate off-site area without delay.

EMERGENCY TELEPHONE NUMBERS:

Local Police Department	911
Local Fire Department	911
Local Rescue Service	911
Primary Hospital: Eastern Long Island Hospital	(631) 477 - 1000
Secondary Hospital: Mather Hospital	(631) 473 - 1320
Continuum Health Care (Dr. Elayne Theriault)	(800) 229-3674
National Poison Control Center	(800) 492-2414
Chemical Manufacturing Association-Chemical Referral Center	(800) 262-8200
Regional Safety and Health Officer: Cindy Sundquist	(207) 775-5401 (w)
	(207) 650-7593 (cell)

AUTHORIZED PERSONNEL:

Rick Ryan	Kurt Stafford
Steve Rose	Rob Ellis
Carl Sharits	Louis Barrentine

* Current First-aid Certification
\+ Current CPR Certification

FIELD TEAM REVIEW: I have read and reviewed the health and safety information in the HASP. I understand the information and will comply with the requirements of the HASP.

Name:_____	Date:_____
Name:_____	Date:_____
Name:_____	Date:_____
Name:_____	Date:_____
Name:_____	Date:_____
Name:_____	Date:_____

ROUTES TO EMERGENCY MEDICAL FACILITIES

PRIMARY HOSPITAL:

Facility Name: Central Suffolk Hospital
Address: 1300 Roanoke Avenue, Riverhead, New York 11901
Telephone Number 631-548-6000

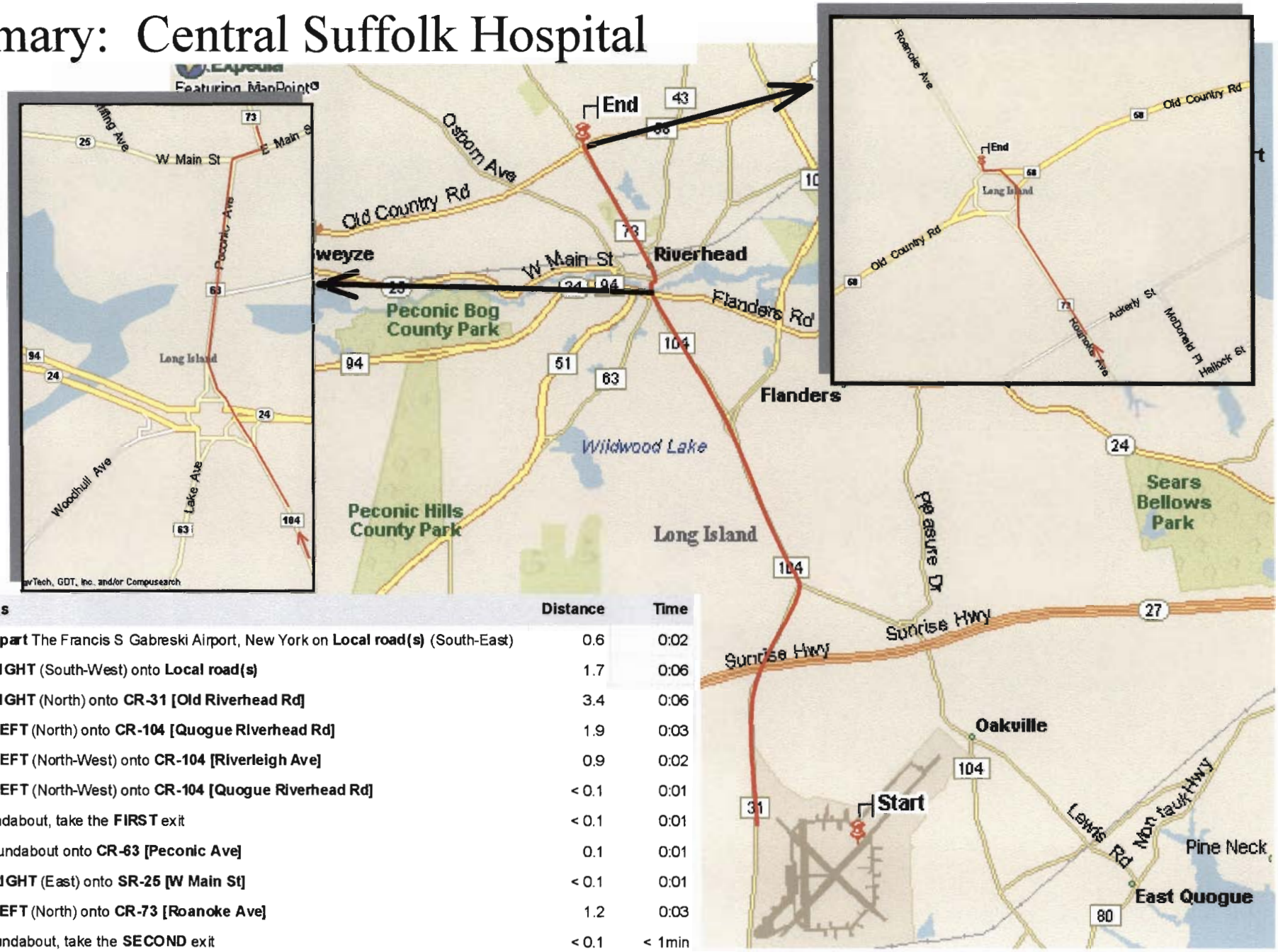
DIRECTIONS TO PRIMARY HOSPITAL (attach map): SEE ATTACHED

ALTERNATE HOSPITAL:

Facility Name: Southampton Hospital
Address: 238 Old Town Road, Southampton, NY 11968
Telephone Number 631-473-1320

DIRECTIONS TO ALTERNATE HOSPITAL (attach map): SEE ATTACHED

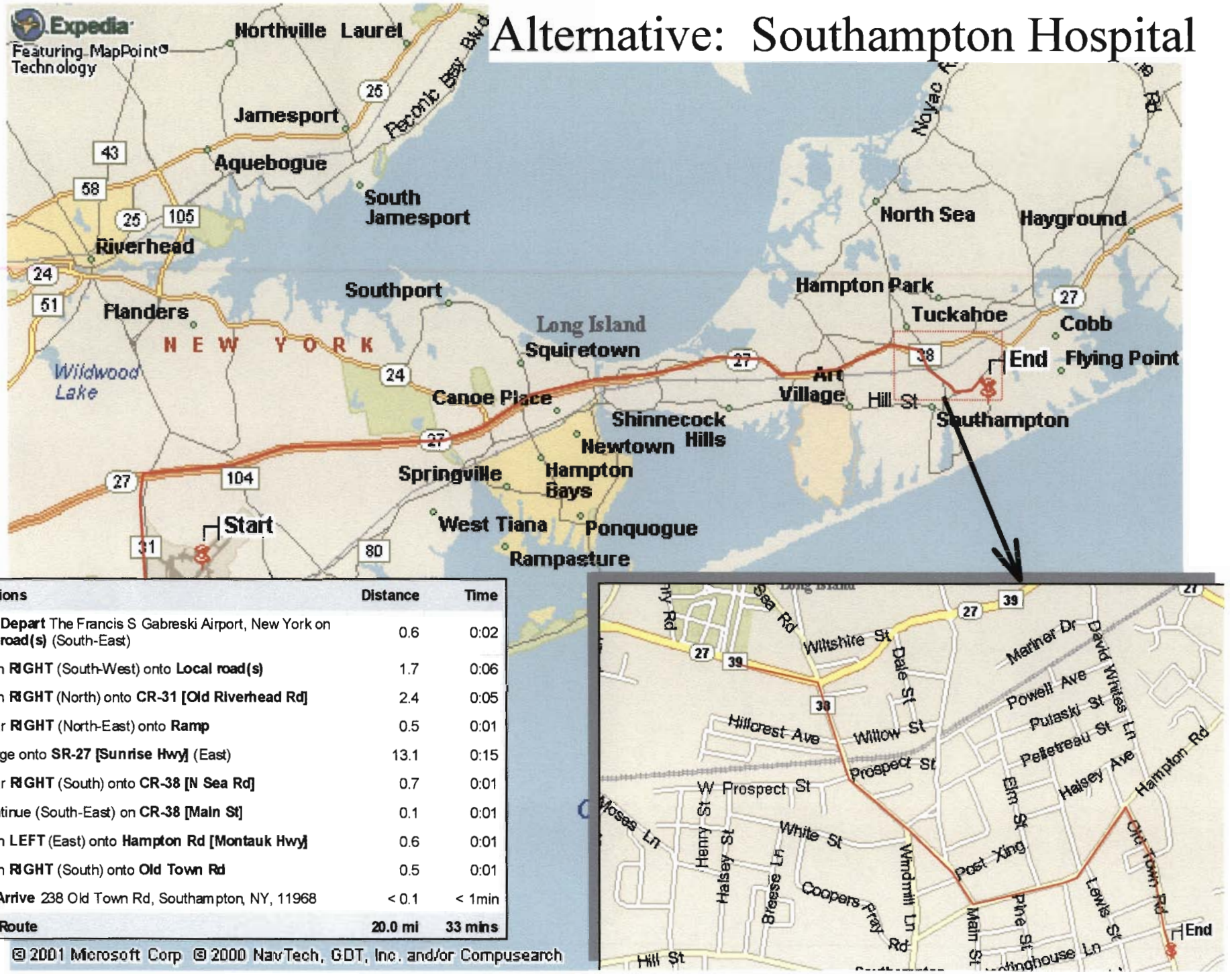
Primary: Central Suffolk Hospital



Directions	Distance	Time
Start: Depart The Francis S Gabreski Airport, New York on **Local road(s)** (South-East)	0.6	0:02
1: Turn **RIGHT** (South-West) onto **Local road(s)**	1.7	0:06
2: Turn **RIGHT** (North) onto **CR-31 [Old Riverhead Rd]**	3.4	0:06
3: Bear **LEFT** (North) onto **CR-104 [Quogue Riverhead Rd]**	1.9	0:03
4: Bear **LEFT** (North-West) onto **CR-104 [Riverleigh Ave]**	0.9	0:02
5: Bear **LEFT** (North-West) onto **CR-104 [Quogue Riverhead Rd]**	< 0.1	0:01
6: At roundabout, take the **FIRST** exit	< 0.1	0:01
7: Exit roundabout onto **CR-63 [Peconic Ave]**	0.1	0:01
8: Bear **RIGHT** (East) onto **SR-25 [W Main St]**	< 0.1	0:01
9: Turn **LEFT** (North) onto **CR-73 [Roanoke Ave]**	1.2	0:03
10: At roundabout, take the **SECOND** exit	< 0.1	< 1min
End: Arrive 1300 Roanoke Ave, Riverhead, NY, 11901	< 0.1	< 1min
Total Route	**9.9 mi**	**25 mins**

Map by Expedia.com®

Alternative: Southampton Hospital



Directions	Distance	Time
Start: Depart The Francis S Gabreski Airport, New York on **Local road(s)** (South-East)	0.6	0:02
1: Turn **RIGHT** (South-West) onto **Local road(s)**	1.7	0:06
2: Turn **RIGHT** (North) onto **CR-31 [Old Riverhead Rd]**	2.4	0:05
3: Bear **RIGHT** (North-East) onto **Ramp**	0.5	0:01
4: Merge onto **SR-27 [Sunrise Hwy]** (East)	13.1	0:15
5: Bear **RIGHT** (South) onto **CR-38 [N Sea Rd]**	0.7	0:01
6: Continue (South-East) on **CR-38 [Main St]**	0.1	0:01
7: Turn **LEFT** (East) onto **Hampton Rd [Montauk Hwy]**	0.6	0:01
8: Turn **RIGHT** (South) onto **Old Town Rd**	0.5	0:01
End: Arrive 238 Old Town Rd, Southampton, NY, 11968	< 0.1	< 1min
Total Route	**20.0 mi**	**33 mins**