Type V Treatment Facility Registration Application

Fort Hood Biotreatment Facility
Fort Hood
Coryell County, Texas

December 2011

United States Army
III Corps and Fort Hood
Directorate of Public Works
Environmental Division
Bldg 4622, Engineer Drive
Ft. Hood, Texas 76544

Prepared by: DPW-ENV Waste Services Team

12-05-11

STATE OF TEXAS
KUNG MOON NG
15815
REGISTERED PROFESSIONAL ENGINEER

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1. CORE DATA FORM

The TCEQ Core Data Form is provided on the following pages.

TCEQ Use Only

TCEQ Core Data Form

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission *(If other is checked please describe in space provided)*

☒ New Permit, Registration or Authorization *(Core Data Form should be submitted with the program application)*

☐ Renewal *(Core Data Form should be submitted with the renewal form)* ☐ Other

2. Attachments **Describe Any Attachments:** *(ex. Title V Application, Waste Transporter Application, etc.)*

☒ Yes ☐ No — Registration Application and supporting documents

3. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	4. Regulated Entity Reference Number *(if issued)*
CN 600126262		RN 105463475

SECTION II: Customer Information

5. Effective Date for Customer Information Updates (mm/dd/yyyy)

6. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check only one of the following:*

☐ Owner ☐ Operator ☒ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other:

7. General Customer Information

☐ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State) ☒ No Change**

If "No Change" and Section I is complete, skip to Section III – Regulated Entity Information.

Type of Customer:			
☐ City Government	☐ County Government	☒ Federal Government	☐ State Government
☐ Other Government	☐ General Partnership	☐ Limited Partnership	☐ Other:

9. Customer Legal Name *(If an individual, print last name first: ex: Doe, John)* — *If new Customer, enter previous Customer below* — *End Date:*

III Corps and Fort Hood Directorate of Public Works

10. Mailing Address: 4622 Engineer Drive

City	State	ZIP	ZIP + 4
Fort Hood	TX	76544	5028

11. Country Mailing Information *(if outside USA)*

12. E-Mail Address *(if applicable)*

13. Telephone Number (254) 287-5707

14. Extension or Code

15. Fax Number *(if applicable)* (254) 287-8249

16. Federal Tax ID *(9 digits)*

17. TX State Franchise Tax ID *(11 digits)*

18. DUNS Number *(if applicable)*

19. TX SOS Filing Number *(if applicable)*

20. Number of Employees

☐ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

21. Independently Owned and Operated?

☒ Yes ☐ No

SECTION III: Regulated Entity Information

22. General Regulated Entity Information *(If 'New Regulated Entity" is selected below this form should be accompanied by a permit application)*

☒ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information ☐ No Change** *(See below)*

**If "NO CHANGE" is checked and Section I is complete, skip to Section IV, Preparer Information.

23. Regulated Entity Name *(name of the site where the regulated action is taking place)*

Fort Hood Biotreatment Facility

24. Street Address of the Regulated Entity: *(No P.O. Boxes)*	Building 1955							
	37th Street and North Avenue							
	City	Fort Hood	**State**	TX	**ZIP**	76544	**ZIP + 4**	5028
25. Mailing Address:	III Corps & Fort Hood							
	Attn: AFZF-PW-ENV (Jerry Mora)							
	City	Fort Hood	**State**	TX	**ZIP**	76544	**ZIP + 4**	5028

26. E-Mail Address:	jerry.mora@us.army.mil	
27. Telephone Number	**28. Extension or Code**	**29. Fax Number** *(if applicable)*
(254) 535-3501		(254) 287-3591

30. Primary SIC Code (4 digits)	**31. Secondary SIC Code** (4 digits)	**32. Primary NAICS Code** (5 or 6 digits)	**33. Secondary NAICS Code** (5 or 6 digits)
9711		928110	

34. What is the Primary Business of this entity? *(Please do not repeat the SIC or NAICS description.)*

Military Installation

Questions 34 – 37 address geographic location. Please refer to the instructions for applicability.

35. Description to Physical Location:	Northwest of 37th Street and North Avenue on Fort Hood.

36. Nearest City	**County**	**State**	**Nearest ZIP Code**
Killeen	Bell/Coryell	TX	76544

37. Latitude (N) In Decimal:			**38. Longitude (W) In Decimal:**		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
31	8	53	97	45	29

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form or the updates may not be made. If your Program is not listed, check other and write it in. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Industrial Hazardous Waste	☒ Municipal Solid Waste
				1866
☐ New Source Review – Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS	☐ Sludge
☒ Stormwater	☒ Title V – Air	☐ Tires	☐ Used Oil	☐ Utilities
TXR05P855	0-01659			
☐ Voluntary Cleanup	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Michael Kancilja	**41. Title:**	Env Protection Specialist

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(254) 287-9734		(254) 287-3591	michael.kancilja@us.army.mil

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 9 and/or as required for the updates to the ID numbers identified in field 39.

(See the Core Data Form instructions for more information on who should sign this form.)

Company:	Directorate of Public Works	**Job Title:**	Chief, Environmental Division
Name *(In Print)* :	Steven Burrow	**Phone:**	(254) 287-6499
Signature:		**Date:**	23 JUNE 2011

2. REGISTRATION APPLICATION FORM

The TCEQ-0650 Permit or Registration Application for Municipal Solid Waste Facility form is provided on the following pages.

Texas Commission on Environmental Quality

Permit or Registration Application for

Municipal Solid Waste Facility

Part I

A. General Information

Facility Name:	Fort Hood Biotreatment Facility			
Physical or Street Address (if available):	BLDG 1955, 37th Street and North Avenue			
(City) (County)(State)(Zip Code):	Fort Hood	Bell	TX	76544
(Area Code) Telephone Number:	254-535-0658			
Charter Number:				

If the application is submitted on behalf of a corporation, provide the Charter Number as recorded with the Office of the Secretary of State for Texas.

Operator Name[1]:	III Corps and Fort Hood Directorate of Public Works			
Mailing Address:	III Corps & Fort Hood Attn: IMHD-PWE (Jerry Mora)			
(City) (County)(State)(Zip Code):	Fort Hood	Bell	TX	76544
(Area Code) Telephone Number:	254-287-6499			
(Area Code) FAX Number:	254-287-3591			
Charter Number:				

If the permittee is the same as the operator, type "Same as Operator".

Permittee Name:	Same as Operator			
Physical or Street Address (if available):				
(City) (County)(State)(Zip Code):				
(Area Code) Telephone Number:				
Charter Number:				

If the application is submitted by a corporation or by a person residing out of state, the applicant must register an Agent in Service or Agent of Service with the Texas Secretary of State's office and provide a complete mailing address for the agent. The agent must be a Texas resident.

Agent Name:				
Mailing Address:				
(City) (County)(State)(Zip Code):				
(Area Code) Telephone Number:				
(Area Code) FAX Number:				

Application Type:

☐	Permit	☐	Major Amendment	☐	Minor Amendment
☒	Registration	☐	Modification	☐	Temporary Authorization
		☐	w/Public Notice		
		☐	w/out Public Notice	☐	Notice of Deficiency Response

[1] The operator has the duty to submit an application if the facility is owned by one person and operated by another [30 TAC 305.43(b)]. The permit will specify the operator and the owner who is listed on this application [Section 361.087 Texas Health and Safety Code].

Texas Commission on Environmental Quality

Permit or Registration Application for

Municipal Solid Waste Facility

Part I

A. General Information

Facility Name:	Fort Hood Bio Treatment Facility			
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(City) (County)(State)(Zip Code):	Fort Hood	Bell	TX	76544
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(Area Code) Telephone Number:	254-287-6499			
(Area Code) FAX Number:	254-287-3591			
Charter Number:				

If the permittee is the same as the operator, type "Same as Operator".

Permittee Name:	Same as Operator			
Physical or Street Address (if available):				
(City) (County)(State)(Zip Code):				
(Area Code) Telephone Number:				
Charter Number:				

If the application is submitted by a corporation or by a person residing out of state, the applicant must register an Agent in Service or Agent of Service with the Texas Secretary of State's office and provide a complete mailing address for the agent. The agent must be a Texas resident.

Agent Name:				
Mailing Address:				
(City) (County)(State)(Zip Code):				
(Area Code) Telephone Number:				
(Area Code) FAX Number:				

Application Type:

☐	Permit	☐	Major Amendment	☐	Minor Amendment
☒	Registration	☐	Modification	☐	Temporary Authorization
		☐	w/Public Notice		
		☐	w/out Public Notice	☐	Notice of Deficiency Response

[1] The operator has the duty to submit an application if the facility is owned by one person and operated by another [30 TAC 305.43(b)]. The permit will specify the operator and the owner who is listed on this application [Section 361.087 Texas Health and Safety Code].

Alternative Language Notice Application Form:

Alternative language notice confirmation for this application:

1. Is a bilingual program required by the Texas Education Code in the school district where the facility is located? ☐ YES ☒ NO

   (If NO, alternative language notice publication not required)

2. If YES to question 1, are students enrolled in a bilingual education program at either the elementary school or the middle school nearest to the facility? ☐ YES ☐ NO

(IF YES to questions 1 and 2, alternative language publication is required; If NO to question 2, then consider the next question)

3. If YES to question 1, are there students enrolled at either the elementary school or the middle school nearest to the facility who attend a bilingual education program at another location? ☐ YES ☐ NO

(If Yes to questions 1 and 3, alternative language publication is required; If NO to question 3, then consider the next question)

4. If YES to question 1, would either the elementary school or the middle school nearest to the facility be required to provide a bilingual education program but for the fact that it secured a waiver from this requirement, as available under 19 TAC ' 89.1205(g)?
   ☐ YES ☐ NO

(If Yes to questions 1 and 4, alternative language publication is required; If NO to question 4, alternative language notice publication not required)

If a bilingual education program(s) is provided by either the elementary school or the middle school nearest to the facility, which language(s) is required by the bilingual program?

Note: Applicants for new permits and major amendments must make a copy of the administratively complete application available at a public place in the county where the facility is, or will be, located for review and copying by the public.

Public place where administratively complete permit application will be located.				
Public Place (e.g., public library, county court house, city hall, etc.):	Killeen Public Library – Main Library			
Mailing Address:	205 E. Church Avenue			
(City) (County)(State)(Zip Code):	Killeen	Bell	TX	76541
(Area Code) Telephone Number:	(254) 501-8990			

B. Facility Location

Except for Type I AE and Type IV AE landfill facilities, for permits, registrations, amendments, and modifications requiring public notice, provide the URL address of a publicly accessible internet web site where the application and all revisions to that application will be posted.
http://www.hood.army.mil/dpw/HTML/pnotice.aspx

Local Government Jurisdiction:	Fort Hood
Within City Limits of:	Fort Hood
Within Extraterritorial Jurisdiction of City of:	Killeen

Is the proposed municipal or industrial solid waste disposal or processing facility located in an area in which the governing body of the municipality or county has prohibited the disposal or processing of municipal or industrial solid waste? (If YES, provide a copy of the ordinance or order):
☐ YES ☒ NO

Provide a description of the location of the facility with respect to known or easily identifiable landmarks.
Centrally located on Fort Hood between North Avenue and E. Range Road west of 37th Street. See figure 6.1 below.

Detail the access routes from the nearest United States or state highway to the facility.
Enter Fort Hood main gate from US HWY 190 West. Continue north on TJ Mills Blvd to North Avenue. Turn right and facility is located on northwest corner of North Avenue and 37th Street.

Provide the latitudinal and longitudinal geographic coordinates of the facility.

Latitude	**N 31 deg., 8 min, 52 sec.**
Longitude	**W 97 deg., 45 min, 27 sec.**
Elevation (above msl)	910 feet

Is the facility within the Coastal Management Program boundary?	☐ Yes ☒ No

Texas Department of Transportation District Location:

TXDOT District Name & Number:	Waco District			
District Engineer's Name:	Richard Skopik, P.E.			
Street or P. O. Box:	100 S. Loop			
(City) (County)(State)(Zip Code):	Waco	McLennan	TX	76704-2858
(Area Code) Telephone Number:	254-867-2700			
(Area Code) FAX Number:	254-867-2890			

The local governmental authority or agency responsible for road maintenance:

Agency Name	U.S. Army, Fort Hood			
Contact Person's Name:				
Street or P. O. Box:				
(City) (County)(State)(Zip Code):				
(Area Code) Telephone Number:				
(Area Code) FAX Number:				

State Representative:

District Number:	59th			
State Representative's Name:	Sid Miller			
District Office Address:	6407 South U.S. Highway 377			
(City) (County)(State)(Zip Code):	Stephenville	Erath	TX	76401

(Area Code) Telephone Number:	254-772-6255
(Area Code) FAX Number:	254-776-2843

State Senator:

District Number:	22^{nd}			
State Senator's Name:	Kip Averitt			
District Office Address:	400 Austin Avenue, Suite 303			
(City) (County)(State)(Zip Code):	Waco	McLennan	TX	76701
(Area Code) Telephone Number:	254-772-6255			
(Area Code) FAX Number:	254-776-2843			

Council of Government (COG) Information:

COG Name:	Central Texas Council of Governments			
COG Representative's Name:	Jim Reed, AICP			
COG Representative's Title:	Exec Director			
Street or P. O. Box:	2180 North Main Street, P.O. Box 729			
(City) (County)(State)(Zip Code):	Belton	Bell	TX	76513
(Area Code) Telephone Number:	254-770-2236			
(Area Code) FAX Number:	254-770-2260			

River Basin Information:

River Authority:	Brazos River			
Contact Person's Name:	Judi Pierce, BRA Public Information Officer			
Watershed Sub-Basin Name:	Brazos River Basin			
Street or P. O. Box:	4600 Cobbs Drive			
(City) (County)(State)(Zip Code):	Waco	McLennan	TX	76714
(Area Code) Telephone Number:	254-761-3103			
(Area Code) FAX Number:	254-761-3207			

This site is located in the following District of the U.S. Army Corps of Engineers:			
☐ Albuquerque, NM	☒ Ft. Worth, TX	☐ Galveston, TX	☐ Tulsa, OK

C. Maps

General

For permits, registrations, and amendments only, submit a topographic map, ownership map, county highway map, or a map prepared by a registered professional engineer or a registered surveyor which shows the facility and each of its intake and discharge structures and any other structure or location regarding the regulated facility and associated activities. Maps must be of material suitable for a permanent record, and shall be on sheets 8-1/2 inches by 14 inches or folded to that size, and shall be on a scale of not less than one inch equals one mile. The map shall depict the approximate boundaries of the tract of land owned or to be used by the applicant and shall extend at least one mile beyond the tract boundaries sufficient to show the following:

each well, spring, and surface water body or other water in the state within the map area;

the general character of the areas adjacent to the facility, including public roads, towns and the nature of development of adjacent lands such as residential, commercial, agricultural, recreational, undeveloped, etc;

the location of any waste disposal activities conducted on the tract not included in the application; and

the ownership of tracts of land adjacent to the facility and within a reasonable distance from the proposed point or points of discharge, deposit, injection, or other place of disposal or activity.

General location maps

For permits, registrations, and amendments only, submit at least one general location map at a scale of one-half inch equals one mile. This map shall be all or a portion of a county map prepared by Texas Department of Transportation (TxDOT). If TxDOT publishes more detailed maps of the proposed facility area, the more detailed maps shall also be included in Part I. Use the latest revision of all maps.

Land ownership map

Provide a map that locates the property owned by adjacent and potentially affected landowners. The maps should show all property ownership within 1/4 mile of the facility, on-site facility easement holders, and all mineral interest ownership under the facility.

Landowners list

Provide the adjacent and potentially affected landowners' list, keyed to the land ownership map with each property owner's name and mailing address. The list shall include all property owners within 1/4 mile of the facility, easement holders, and all mineral interest ownership under the facility. Provide the property, easement holders', and mineral interest owners' names and mailing addresses derived from the real property appraisal records as listed on the date that the application is filed. Provide the list in electronic form, as well.

D. Property owner information

For permits, registrations, amendments, and modifications that change the legal description, a change in owner, or a change in operator only, provide the following:

(1) the legal description of the facility;

(A) the abstract number as maintained by the Texas General Land Office for the surveyed tract of land;

(B) the legal description of the property and the county, book, and page number or other generally accepted identifying reference of the current ownership record;

(C) for property that is platted, the county, book, and page number or other generally accepted identifying reference of the final plat record that includes the acreage encompassed in the application and a copy of the final plat, in addition to a written legal description;

(D) a boundary metes and bounds description of the facility signed and sealed by a registered professional land surveyor;

(E) on-site easements at the facility, and

(F) drawings of the boundary metes and bounds description; and

(2) a property owner affidavit signed by the owner.

E. Legal authority

Provide verification of the legal status of the owner and operator, such as a one-page certificate of incorporation issued by the secretary of state. List all persons having over a 20% ownership in the proposed facility.

Indicate Ownership status of the facility:									
☐	Private	☐	Corporation	☐	Partnership	☐	Proprietorship	☐	Non-Profit Organization
☐	Public	☒	Federal	☐	Military	☐	State	☐	Regional
☐	County	☐	Municipal	☐	Other (Specify)				

Does the operator own the facility units and the facility property?	☒ Yes ☐ No

If "No," for permits, registrations, amendments, and modifications that changes the legal description, a change in owner, or a change in operators submit a copy of the lease for the use of or the option to buy the facility units or facility property, as appropriate, and identify:				
Owner Name:				
Street or P. O. Box:				
(City) (County)(State)(Zip Code):				
(Area Code) Telephone Number:				
(Area Code) FAX Number:				
Charter Number:				

F. Evidence of competency

For permits, registrations, amendments, and modifications that change the legal description, a change in owner, or a change in operators submit a list of all Texas solid waste sites that the owner and operator have owned or operated within the last ten years.				
Site Name	Site Type	Permit/Reg. No.	County	Dates of Operation
Fort Hood Landfill	Type I	Permit 1866	Coryell	1992 - Present

Submit a list of all solid waste sites in all states, territories, or countries in which the owner and operator have a direct financial interest.			
Site Name	Location	Dates of Operation	Regulatory Agency (Name & Address)

A licensed solid waste facility supervisor, as defined in 30 TAC Chapter 30, Occupational Licenses and Registrations will be employed before commencing facility operation.

Provide the names of the principals and supervisors of the owner's and operator's organization, together with previous affiliations with other organizations engaged in solid waste activities.		
Name	Previous Affiliation	Other Organization
Earl D. Hawkins	N/A	

For landfill permit applications only, evidence of competency to operate the facility shall also include landfilling and earthmoving experience if applicable, and other pertinent experience, or licenses as described in 30 TAC Chapter 30 possessed by key personnel. The number and size of each type of equipment to be dedicated to facility operation will be specified in greater detail on Part IV of the application within the site operating plan.

Landfilling/Earthmoving Equipment Types	Personnel Experience or Licenses
CT670 Vermeer windrow Turner	CDL License

For mobile liquid waste processing units, submit a list of all solid waste, liquid waste, or mobile waste units that the owner and operator have owned or operated within the past five years. Submit a list of any final enforcement orders, court judgments, consent decrees, and criminal convictions of this state and the federal government within the last five years relating to compliance with applicable legal requirements relating to the handling of solid or liquid waste under the jurisdiction of the commission or the United States Environmental Protection Agency. Applicable legal requirement means an environmental law, regulation, permit, order, consent decree, or other requirement.

Solid waste, liquid waste, or mobile waste units owned or operated within past 5 years	Texas and federal final enforcement orders, court judgments, consent decrees, and criminal convictions

G. Appointments

Provide documentation that the person signing the application meets the requirements of 30 TAC §305.44, Signatories to Applications. If the authority has been delegated, provide a copy of the document issued by the governing body of the owner or operator authorizing the person that signed the application to act as agent for the owner or operator.

H. Application Fees

For a new permit, registration, amendment, modification, or temporary authorization, submit a $150 application fee.

For authorization to construct an enclosed structure over an old, closed municipal solid waste landfill in accordance with 30 TAC 330 Subchapter T, submit a $2,500 application fee.

If paying by check, send payment to:

Texas Commission on Environmental Quality
Financial Administration Division, MC 214
P. O. Box 13087
Austin, Texas 78711-3087

Payment maybe made online using TCEQ e-pay at www.tceq.state.tx.us/e-services/	
E-pay confirmation number	

PROPERTY OWNER AFFIDAVIT

"I, Brian Dosa, Director, Fort Hood Public Works

(property owner)

acknowledge that the State of Texas may hold me either jointly or severally responsible for the operation, maintenance, and closure and post-closure care of the facility. For a facility where waste will remain after closure, I acknowledge that I have a responsibility to file with the county deed records an affidavit to the public advising that the land will be used for a solid waste facility prior to the time that the facility actually begins operating as a municipal solid waste landfill facility, and to file a final recording upon completion of disposal operations and closure of the landfill units in accordance with Title 30 Texas Administrative Code §330.19, Deed Recordation. I further acknowledge that I or the operator and the State of Texas shall have access to the property during the active life and post-closure care period, if required, after closure for the purpose of inspection and maintenance."

_____ _____

(Owner signature) (Date)

Signature Page

I, _____Brian L. Dosa_____, ____Director, Fort Hood Public Works_____,
(Operator) (Title)

certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: _____

- -

TO BE COMPLETED BY THE OPERATOR IF THE APPLICATION IS SIGNED BY AN AUTHORIZED REPRESENTATIVE FOR THE OPERATOR

I, _____, hereby designate _____
(Print or Type Operator Name) (Print or Type Representative Name)

as my representative and hereby authorize said representative to sign any application, submit additional information as may be requested by the Commission; and/or appear for me at any hearing or before the Texas Commission on Environmental Quality in conjunction with this request for a Texas Water Code or Texas Solid Waste Disposal Act permit. I further understand that I am responsible for the contents of this application, for oral statements given by my authorized representative in support of the application, and for compliance with the terms and conditions of any permit which might be issued based upon this application.

_____
Printed or Typed Name of Operator or Principal Executive Officer

_____
Signature

- -

SUBSCRIBED AND SWORN to before me by the said _____

On this _____day of _____, _____

My commission expires on the _____day of _____, _____

_____
Notary Public in and for

_____ County, Texas

(Note: Application Must Bear Signature & Seal of Notary Public)

3. LEGAL AUTHORITY

The Fort Hood Biotreatment Facility is owned and operated by the U.S. Department of the Army; therefore, as an agency of the Federal Government, a certificate of incorporation from the Office of the Secretary of State is not applicable.

4. EVIDENCE OF COMPETENCY

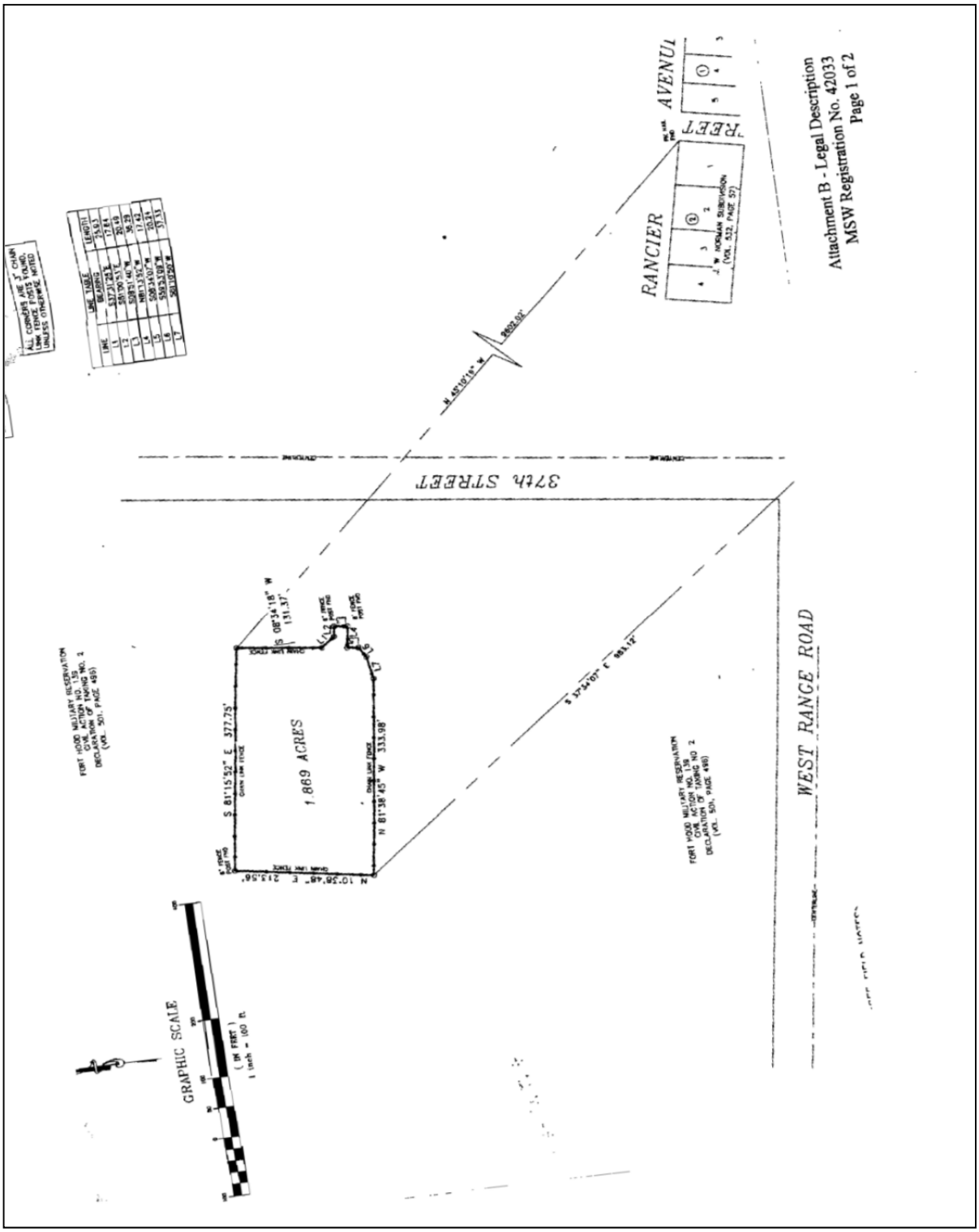
The following individuals are the principals and supervisors of the proposed Biotreatment Facility, Bio-Remediation operation:

1. Riki Young – Chief, Environmental Management Branch
2. Jerry Mora – Program Manager, Solid Waste Section
3. Earl “Dee” Hawkins – Biotreatment Facility Operator

Fort Hood also owns and operates the following solid waste operations:

Fort Hood Landfill Type I Facility, Permit Number 1866

5. LEGAL DESCRIPTION



6. LOCATION DESCRIPTION

A general location map showing the proximity of the treatment facility to the nearest Post Boundary (Figure 6.1) and USGS Topographic map (Figure 6.2) can be seen on the following two pages.

Attachment B - Legal Description
MSW Registration No. 42033
Page 2 of 2

BIO CELL
JEFF SALMON
1.869 ACRES

FIELD NOTES for a *1.869 acre* tract of land in Bell County, Texas, being part of the Z. H. Short Survey, Abstract No. 785, and the land herein described being part of that certain tract described in a Declaration of Taking No. 2, recorded in Volume 501, Page 496, Deed Records of Bell County, Texas, and being more particularly described as follows:

Commencing at a PK nail found in the south right of way of Rancier Avenue and in the west right of way of Garner Street, being the northeast corner of Lot 1, Block 2, J. W. Norman Subdivision, an addition to the City of Killeen, Texas, being of record in Volume 532, Page 57, Plat Records of Bell County, Texas;

THENCE N. 43° 10' 19" W., 9602.02 feet, to a 3" fence post found, for the *Point of Beginning* and northeast corner of this tract;

THENCE following a chain link fence and the east line of herein described tract, the following eight (8) courses and distances:

1) **S. 08° 34' 18" W., 131.37 feet**, to a 3" chain link fence post found, for a corner of this tract;
2) **S. 37° 31' 25" E., 25.93 feet**, to a 3" chain link fence post found, for a corner of this tract;
3) **S. 81° 00' 53" E., 17.64 feet**, to a 6" chain link fence post found, for a corner of this tract;
4) **S. 08° 51' 40" W., 20.49 feet**, to a 6" chain link fence post found, for a corner of this tract;
5) **N. 81° 13' 52" W., 36.29 feet**, to a 3" chain link fence post found, for a corner of this tract;
6) **S. 08° 34' 07" W., 17.42 feet**, to a 3" chain link fence post found, for a corner of this tract;
7) **S. 59° 53' 09" W., 20.24 feet**, to a 3" chain link fence post found, for a corner of this tract;
8) **S. 81° 10' 50" W., 37.33 feet**, to a 3" chain link fence post found, for the most southerly, southeast corner of this tract;

THENCE **N. 81° 38' 45" W., 333.98 feet**, continuing with a chain link fence, to a 3" chain link fence post found, for the southwest of this tract, from which the centerline intersection of 37th Street and West Range Road bears *S. 37° 34' 07" E., 983.12 feet;*

THENCE **N. 10° 38' 48" E., 213.56 feet**, continuing with a chain link fence, to a 6" chain link fence post found, for the northwest of this tract;

THENCE S. **81° 15' 52" E., 377.75 feet**, continuing with a chain link fence, to the Point of Beginning, containing **1.869 acres** of land.

The bearings for the above described tract of land are based on the Texas State Plane Coordinate System, Central Zone, NAD 83, as per GPS observations.

See accompanying drawing.

STATE OF TEXAS

COUNTY OF BELL

KNOW ALL MEN BY THESE PRESENTS, that I, Rex D. Haas, Registered Professional Land Surveyor, do hereby certify that I did cause to be surveyed on the ground, the above described tract and that this description is true and correct to the best of my knowledge and belief.

IN WITNESS THEREOF, my hand and seal this the 3rd day of December, 2007, A. D.

Rex D. Haas
Registered Professional
Land Surveyor, No. 4378

S:\Field Notes\Dale's FN\BIO CELL 1.869 ACRES.doc
Mitchell & Associates, Inc., 102 N. College St. Killeen, Texas 76541 (254)-634-5541

STATE OF TEXAS
REGISTERED
REX D. HAAS
4378
PROFESSIONAL
LAND SURVEYOR

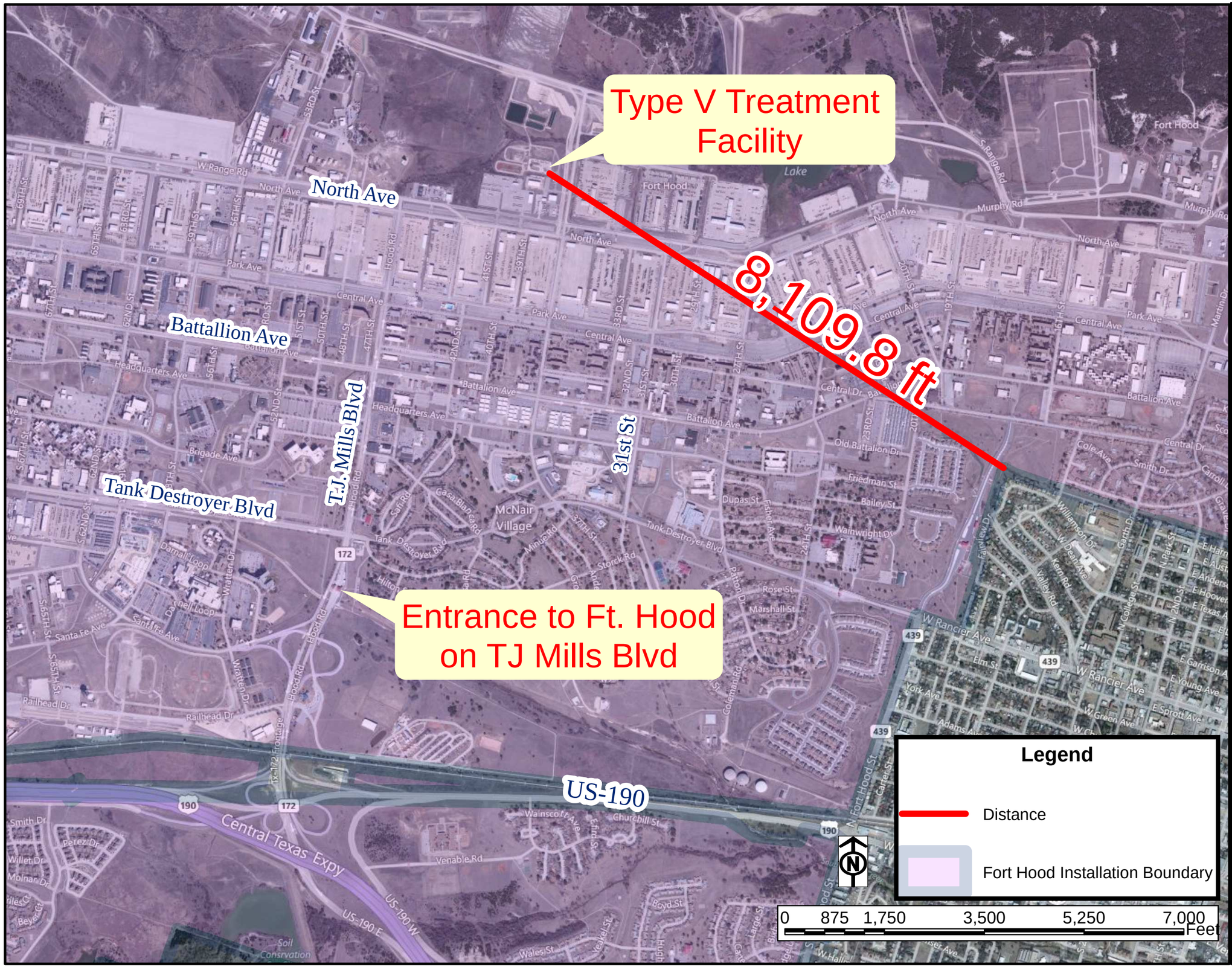


Figure 6.1: Exhibit of Aerial Photograph of Type V Treatment Facility

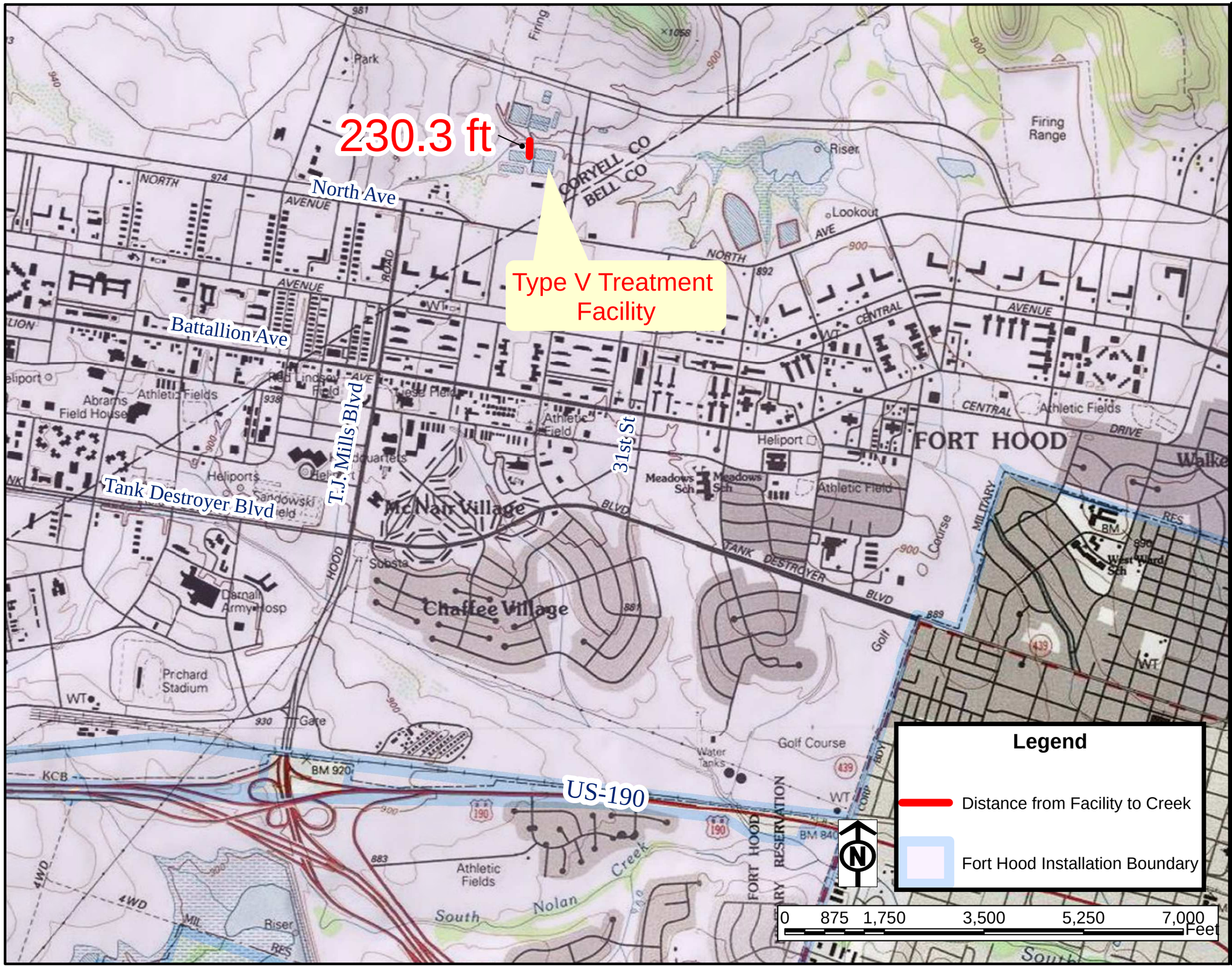


Figure 6.2: Exhibit of USGS Topographic Map of Type V Treatment Facility

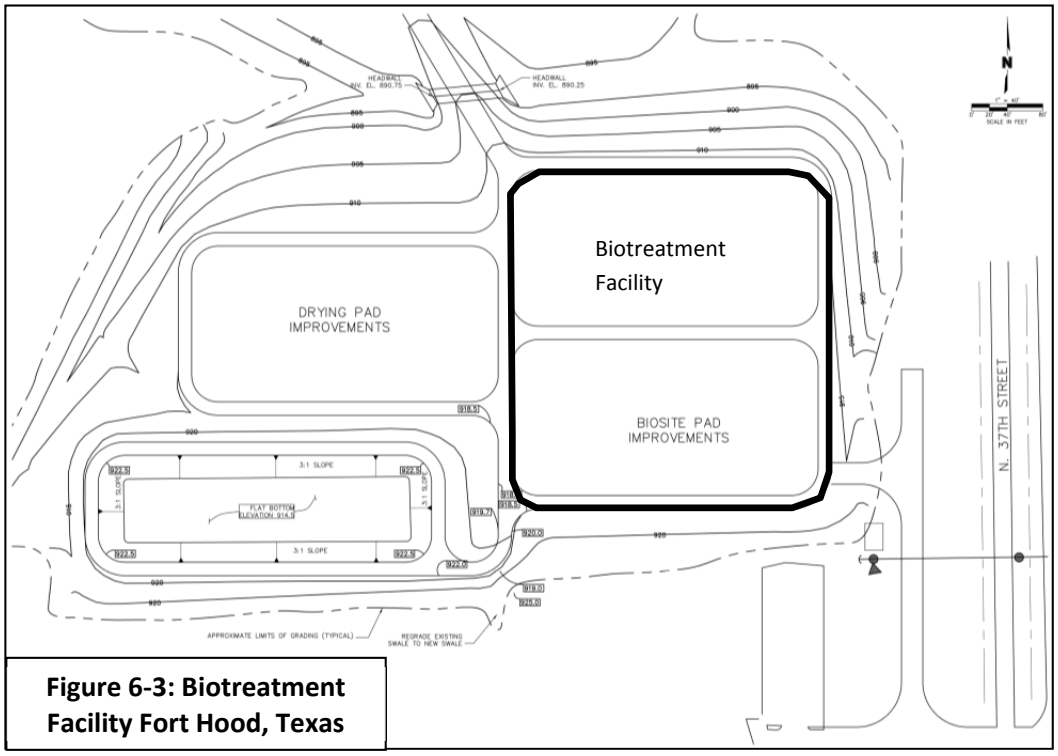


Figure 6-3: Biotreatment Facility Fort Hood, Texas

Figure 6.3 A more detailed drawing of the facility proposed for the petroleum contaminated soil treatment operation.

This facility was originally constructed for vehicle washing activities and includes the following benefits:

- Concrete pad with bermed sides, approximately 1.4 acres in area
- Designed for containment of a 4% A.C. storm, but can hold volume of a 1% A.C. event
  - Should extra containment be necessary, a drain pipe runs from this facility to a lined pond (Used for Tank Washing Water) approximately 800’ north of the site
- Site includes five concrete bins for separate batches
- Site includes fixed irrigation and mobile irrigation fixtures for maintaining moisture
- Site includes storage sheds for tools and small equipment
- Adjacent earthen-bermed pad (approximately same size) for storage of non-hazardous feedstocks (wood, vegetative debris, manure) and finished product
- Manned by a Class B MSW Supervisor (Licensed Operator)
- Completely contained within the boundaries of Fort Hood, surrounded by industrial-use facilities
- Fenced and locked during off hours and when not in use

Figure 6-4: Concrete Bins for Feed Stocks

The geographic coordinates for the southeast corner of the facility are:

Latitude: 31° 8’ 52” N - Longitude: 97°45’ 27”W

7. LANDOWNER'S LIST

The facility is solely contained within the Fort Hood Army Installation; therefore, there are no affected adjacent landowners. See Figure 6.1 Exhibit for relations of Treatment Site and the boundary of the Post.

8. FACILITY OPERATING PLAN

This Facility Operating Plan (FOP) provides general instructions to be followed by site personnel throughout the operating life of the site, but is not intended to be a comprehensive operating manual. This FOP represents the general instructions for site management and operation in a manner consistent with 30 TAC §330 rules to protect human health and the environment and prevent nuisances.

The goal of Fort Hood's Biotreatment program is to divert waste materials from landfills and produce high quality material that can be used for soil restoration in the training areas across the installation. Due to the innovative nature of the proposed biotreating operation, the FOP is focused on operating parameters as opposed to a prescribed process. Feed stocks for the program will vary, including mixing of common vegetative debris and horse manure that will produce high quality material, as well as utilization of petroleum contaminated soil from spills. Dry sediment collected from grit traps and oil-water separators that are located throughout the Installation at wash racks and maintenance bays may also be used as feedstock material. Grit trap waste will be de-watered/dried at the drying pad located adjacent to the Biotreatment Facility as shown in Figure 6-3. Fort Hood's goal is to operate the facility in a manner which results in the most effective Biotreatment process while monitoring and tracking potentially-hazardous materials if present in petroleum contaminated soil feedstock.

Biotreatment of petroleum contaminated soil, while not a new concept, is not a common bioremediation operation. The best conditions (nutrient balance, moisture, oxygen, temperature, configuration, etc.) are well known and are instituted in this program to facilitate maximum degradation of petroleum compounds. Furthermore, while bioremediation is often considered a "passive" process, active management of the Biotreatment process is the standard, including regular temperature and moisture monitoring of material conditions, turning of windrows to maximize aeration and nutrient distribution, testing for contaminant concentrations before initiation of the process and as the soil matures, quality and contaminant condition for end use, and documentation of each batch.

Biotreated soil produced at the Biotreatment Facility is derived from three primary feedstock sources:

- Petroleum-contaminated media, including soils recovered from petroleum spills, absorbents used to clean small spills or leaks, and grit materials removed from wash rack grit traps and oil/water separators
- Horse manure
- Vegetative debris, including wood chips from trees and brush, leaves, and grass and hay cuttings.

Feedstocks are described below.

8.1 Feedstocks

As described, the Fort Hood Biotreatment program will utilize multiple feedstocks. In so doing, Fort Hood is diverting organic materials from the waste stream that would otherwise be land filled, and converting them for usable materials. Fort Hood has undertaken an initiative to divert waste streams going into the Fort Hood landfill by year 2020. Soil derived from feedstock that includes petroleum compounds will be monitored for hazardous constituents at maturation, and then compared to provisions under Texas Risk Reduction Rules for industrial land use. The end product will be primarily used on training range areas. This process will be described in Section 8.6.

8.1.1 Petroleum Contaminated Soils

Most petroleum products used at Fort Hood are kerosene range hydrocarbons (typically C9 to C20 carbon compounds) and lubricating oils. As a result, most petroleum contaminated soils will likely contain these types of petroleum hydrocarbons. Sources of petroleum contaminated media include:

- Spills of petroleum products, oils and lubricants (POL) during training or other installation activities
- Non-crystalline absorbents or sorbents used to clean up small spills of POL
- Soils from petroleum storage tank or leaking petroleum storage tank (PST/LPST) sites
- Oil/water separator sediments that have been dried and are determined to have elevated levels of TPH

- Soil accumulation from storm water activities that have been dried and are determined to have elevated levels of TPH

The Fort Hood Biotreatment Facility currently operates under the premise that feedstock with petroleum contaminated soils is limited to 2,500 cubic yards per year. As required by TCEQ §106.533(2) (Previously Standard Exemption 68) of TCEQ regulations, total emissions of petroleum hydrocarbons from soils contaminated with petroleum compounds should not exceed 1.0 lb/hr to satisfy standard exemption requirements. In addition to meeting the 1.0 lb/hr limit for emissions of TPH, as per §106.533 of TCEQ regulations, benzene emissions must also meet the condition of §106.262(3) of the TCEQ regulations. TCEQ §106.262(3) states that benzene emissions from the Biotreatment Facility shall not be greater than 5 tons/year. Assuming an average concentration of petroleum contaminated soils of 15,000 mg/kg, more than 10,000 cubic yards of this feedstock could be treated per year, and because kerosene and lubricating oils do not contain appreciable amounts of benzene, benzene emissions are expected to be very low. Information from the Foot Hood DPW indicates that from 2007 through 2009, approximately 802 cubic yards of soil and absorbent material was treated at the Biotreatment Facility. During this time period, 2007 had the highest amount of soil and absorbent delivered and treated at the facility (679 cubic yards), with decreasing amounts in 2008 and 2009.

Only acceptable soils are delivered to the site. Fort Hood personnel, military and civilian, who send contaminated soil to the Biotreatment Facility, have to first fill out Department of Army (DA) Form 3161. This form serves as an internal manifesting process. The soil is allowed into the Biotreatment Facility only when it is determined by qualified Directorate of Public Works personnel to be acceptable based on soil characterization.

8.1.2 Vegetative Debris

Vegetative debris includes wood chips derived from cut trees and brush, leaves, and grasses generated from clearing of brush, cutting of hay, and routine landscape maintenance. Wood chips used in the compost mix cannot be larger than 2 inches in length and more than ½ inch in any other dimension. Wood chips will increase bulk of the treatment mix, maximizing macropore distribution, but must also be effectively decomposed within the desired time period. Smaller wood chips and even partially decomposed woody materials are preferred. Landscape wastes (grass, brush, flower bed

material) can and should be added as available. Wood chips derived from demolition debris (lumber, plywood, other) is only acceptable for treatment if it has not been treated with preservatives.

8.1.3 Horse Manure

Manure is obtained from the Fort Hood stables and used as one of the primary feedstocks. Horse manure is an ideal material for bioremediation, serving as a catalyst providing nutrients and microbial populations to expedite the biotreating process. Manure facilitates the rapid growth of beneficial microbial and fungal populations that will decompose the carbon chains of other feedstocks in the mixes. Manure is rich in nitrogen, and will help to alleviate the need for using fertilizer to provide nutrients in the mixes. Use of fertilizer nitrogen requires substantial energy in its production, shipment, and application; therefore, using natural nutrient nitrogen in manure saves resources while also diverting a valuable resource – the manure – from landfills.

8.1.4 Natural Fiber Absorbent Pads

Natural fiber absorbent pads used by Fort Hood personnel that are contaminated with petroleum products are being considered as a potential feed stock in the future.

Grit trap waste from the Fort Hood vehicle wash racks and oil/water separators will be dewatered and used as a feedstock in the Biotreatment process.

8.2 Tipping Process

Fort Hood personnel bringing soil to the Biotreatment Facility must have a completed DA Form 3161. The Biotreatment Facility Operator collects the completed form, confirms the soil characterization, and may assist in unloading the soil onto the staging pad from the delivery truck. The Biotreatment Facility Operator enters information about the soil into a database and assigns it a unique number. The soil is then tested to determine the initial TPH levels. Contaminated soil is stockpiled at the Biotreatment Facility on the staging pad until the soil can be placed and spread on to the Biotreatment pad, which is divided into a grid system. The amount of time the soil is stockpiled depends on space availability. Once a contaminated soil is brought to the Biotreatment Facility, the soil will remain on the site until it is fully bioremediated and ready for re-use.

A front end loader is used to move the soil from the staging pad to the Biotreatment pad. The staging pad is washed twice a year with uncontaminated water to remove any excess materials. Excess water that accumulates on the Biotreatment Facility will be removed by a drain on the west side of the pad.

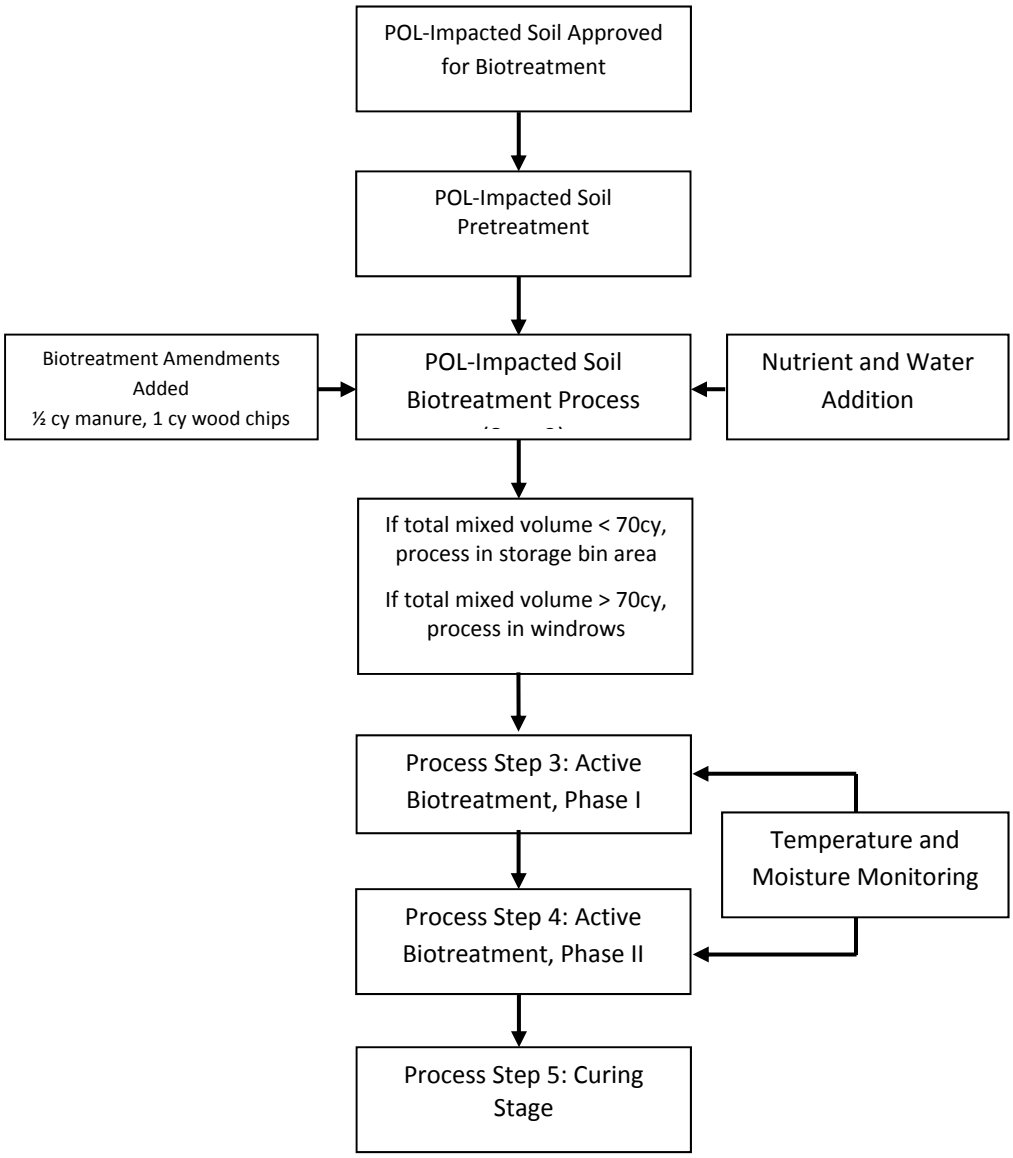
8.3 Biotreatment Process

A general bioremediation process has been developed for the Fort Hood Biotreatment operation that incorporates flexibility to account for different feedstock batch mixes as well as adaptive management of Biotreatment as more information is obtained from successful biotreated batches – or when bio treated batches don't achieve program goals. The general Biotreatment process includes:

- A pretreatment period of 7 to 9 days for POL-impacted soils is built into the process for degradation of lighter petroleum hydrocarbon compounds as well as breakdown of more complex chains.
- Feedstock mix rates will vary. For example, when petroleum-contaminated soil is used, approximately 1.0 cubic yard of manure and 1.0 cubic yards of wood chips will be mixed with each (1.0) cubic yard of POL-impacted soil to facilitate the treatment process. Manure introduces less complex carbon chains and more nutrients that will foster more rapid microbial growth in the mixture. As manure is decomposed, microbial populations will adapt to and begin decomposition of more complex woody (lignin based) and petroleum hydrocarbon molecules. Wood chips provide bulk and aeration to the mix, and also are a source of fungi (typically white rot fungi) that aid in breakdown of lignin and hydrocarbon molecules. This mix ratio will be monitored for effectiveness and adjusted to provide improved efficiency as necessary.
- When the feedstock includes petroleum-contaminated absorbents, approximately 1.0 to 1.5 cubic yards of manure and 0.5 to 1.0 cubic yards of wood chips will be added to each cubic yard of absorbent, if available. This is to maximize the C:N ratio to facilitate decomposition of material.
- Wood chips used in the mix cannot be larger than 2 inches in length and more than ½ inch in any other dimension. Wood chips will increase bulk of the mix, maximizing macropore distribution, but must also be effectively decomposed within the desired time period. Smaller wood chips and even partially decomposed woody materials are preferred.
- Landscape wastes (grass, brush, flower bed material) can and should be added as available.

- The period of most active treatment is the first 8 weeks, during which time more active management of the materials is recommended. This includes regular turning of the piles (see process below), and monitoring of treatment conditions (temperature, moisture, nutrient content).
- After the initial 8 week treatment period, an extended curing and slower decomposition process will occur. The mix will be placed in a curing area for approximately 1- to 3- months to facilitate additional decomposition of organic chains and maturing of the material. Less management is required, but periodic monitoring and turning of the piles is required.
- This process is established to facilitate treatment of POL-impacted media. If no POL-impacted media is included in the process, the pretreatment step is not necessary.

The Biotreatment process will generally follow the flow chart shown below. Process will be developed for the final Operations and Maintenance Manual, but are anticipated to include the following steps:



The following steps describe the Biotreatment process:

Step 1: Pretreatment of POL-Impacted Soils

If POL-impacted soils will be used as a feedstock, the soil will be spread in a lift no greater than 12 inches deep on the pretreatment pad. The POL-impacted soil should be disked every two- or three days to allow for drying over a period of at least one week.

Step 2: Feedstock Addition

Selected feedstocks will be determined for each batch and the amounts of amendments to be used (nutrients) will be calculated. Typically, the feedstock mix will include 0.5 to 1.0 cubic yards of manure (either horse manure or grass clippings will suffice) and 1.0 cubic yards of

woodchips will be mixed together for every cubic yard of soil. Based on assumed C:N ratios of the added materials, the amount of nitrogen fertilizer to add to the pile will be determined using a computer-based batch mix calculator developed for Fort Hood by the U.S. Army Corps of Engineers Construction Engineering Research Laboratory (CERL). If necessary, the composite material will be processed through a shaker/shredder to maximize homogenization of the soil and amendments, and to reduce particle size to the extent possible.

Feedstock's will be mixed together by laying individual feedstock materials in flat lifts approximately six- to twelve inches deep on top of each other, and then mixing with a tractor-drawn roto-tiller and chisel to mix all components, and with a front-end loader as it is placed into windrows. Depending on the amount of soil and organic amendments, the soil/organic mix will be placed in passive windrow configuration. Piles less than 70 cubic yards can be placed in storage "bins" for efficient management and operations.

Step 3: Active Biotreatment – Phase I

The initial Biotreatment phase is the most active during the process. During this time (approximately four weeks) the windrow should be turned every 3 or 4 days or as needed determined by the temperature. The batch will be turned using a windrow turner to sufficiently mix the windrow. Temperature and moisture will be monitored regularly to assure microbial activity is occurring. Temperatures should be higher than 110 degrees to as high as 140 degrees Fahrenheit near the middle of the windrow and moisture will be maintained between 40 and 60 percent. When moisture falls below 40 percent, the amount of water to bring the moisture content to 60 percent will be calculated and added to the pile. See Section 9.4 regarding temperature and moisture monitoring.

Step 4: Active Biotreatment – Phase 2

The continued Biotreatment process can proceed for at least an additional four weeks. After 6 months of completion of the initial Phase I, the windrow will be reformed using the shaker/shredder to re-homogenize the batch mix and break apart "clods" or larger materials. At the initiation of Phase 2, a sample will be collected for analysis of total carbon and total nitrogen to monitor C:N ratio. The windrow can be turned less frequently during Phase 2 active treatment – approximately every seven days. Continue to monitor temperature and moisture content.

Step 5: Batch Curing and Maturation

After approximately eight weeks, active Biotreatment slows to a more stable rate. The curing windrow should again be formed using the shaker/shredder to break any remaining large materials and homogenize the batch mix. The curing or maturation phase of the Biotreatment process should take from one- to three months. Periodic temperature and moisture monitoring should be conducted to assure that continued microbial activity is occurring.

8.4 Monitoring

The batch must be allowed to decompose with time. During the process, it is important to monitor moisture levels and temperature regularly, as often as every 2- to 3- days if possible early in the Biotreatment process. Moisture must be maintained between 40 to 60 percent, and temperature should steadily rise to approximately 120 to 130 degrees Fahrenheit. When moisture falls below 40 percent, water needs to be added to the windrow to restore moisture content. When temperature exceeds 140 degrees Fahrenheit, it is time to turn the windrow.

In addition to moisture and temperature monitoring, nutrient monitoring is important to assure that sufficient microbial activity can occur. Not enough nutrients (primarily nitrogen) will slow the Biotreatment process. An ideal amount of nitrogen is between 1.5 and 2.5 percent (15,000 and 25,000 parts per million – or ppm) *in the organic part of the batch*. This is equivalent to about 20 to 25 pounds of nitrogen per cubic yard of treated material. The following steps describe moisture and temperature monitoring:

1. Moisture monitoring: using the moisture probe (see instructions), monitor the moisture content of the windrow in at least [ten] locations of the windrow, at least 5 sample locations across one side of the windrow and five sample locations across the other side of the windrow. The probe should be inserted to depth at least 24- to 36 inches into the interior of the pile. Record the moisture readings for each, and average to obtain an average moisture content of the windrow. If the moisture level is below 40 percent, add sufficient water to restore the moisture content to approximately 60 percent. Use the attached calculation sheet. Record water added to the pile for each date when moisture addition occurs (this data is necessary for the test batches to provide information for assessment of the procedure and effectiveness of Biotreatment production).

2. Temperature monitoring: using the temperature probe (see instructions), monitor the temperature of the windrow in several locations of the windrow. Insert the temperature probe at least 24 to 36 inches into the windrow – or as close into the middle of the windrow as possible – to obtain temperature readings. Record the readings obtained, and calculate the average temperature of the windrow. If the average temperature exceeds 120 degrees, optimal Biotreatment is occurring. If the temperature exceeds 130 degrees, the windrow should be turned and remixed. If the temperature exceeds 140 degrees, the windrow should be turned and remixed immediately. If the temperature does not increase, or begins to decrease, the windrow may require

more moisture and/or turning to activate the Biotreatment process, or a check of soil quality may be necessary to determine if the batch has reached a stable point.

Temperature and moisture monitoring will be a primary indicator of when active management of the windrow is necessary. Recording the monitoring information as it is completed is important for management of the Biotreatment process and in determination of the final distribution of biotreated material.

8.5 Soil Batch Completion

Soils will be allowed to mature and cure until the following have been achieved:

1. A uniform friable structure and color (dark brown to black) of the material throughout the batch
2. Minimal odor of manure or ammonia
3. Little or no rise in temperature in pile

On completion, one sample will be collected from each batch and analyzed for the following parameters as required by TAC 30, Chapter 350:

- Total Petroleum Hydrocarbons (if TPH-contaminated media was used as a feedstock) using method 1005
- Total metals, including:

(A) Arsenic
(B) Cadmium
(C) Chromium
(D) Copper
(E) Lead
(F) Mercury
(G) Molybdenum
(H) Nickel
(I) Selenium
(J) Zinc

In addition, completed batches will be analyzed for carbon/nitrogen ratio.

8.6 Final Soil Classification

Before considering the affected soil, the action levels must be established. The action level could be either the Tier 1 residential protective concentration level (PCL) or the background / method quantitation limit (MQL). Action levels are defined as the lowest applicable Tier 1 residential PCL. If background or MQL is a higher concentration than the action level, then the higher of background or MQL becomes the action level. Because surface soils are being classified, Table 1 identifies $^{Tot}Soil_{Comb}$ and $^{Gw}Soil_{Ing}$ as the applicable human health exposure pathways for determining action levels.

Table 1

Exposure Pathways for Action Levels

Media	**$^{Tot}Soil_{Comb}$ (0-15 ft)**	**$^{GW}Soil_{Ing}$**	**$^{Air}Soil_{Inh-V}$ (>15 ft)**	**$^{GW}GW_{Ing}$**	**$^{Air}GW_{Inh-V}$**	**Background/MQL**
Surface Soil	X	X				X
Subsurface Soil		X	X			X
Groundwater				X	X	X

The analytical results of the TPH-contaminated media obtained using Method 1005 will then be compared to the action level to determine if the material is acceptable for residential or waste material use. *Soil that has included TPH-contaminated media will not be used for residential sites.* The procedural steps for final soil classification include:

1. Compare Tier 1 Residential Soil PCLs for the aforementioned applicable exposure pathways (Table 2) to the Texas Median Background Concentrations (Table 3) to determine the action levels.
2. Field sampling: a composite sample will be collected from each 100 cubic yard batch of treated material for analyses of TPH using TCEQ Method 1005.
3. Source area identification: a 0.5 acre source area will be assumed since the affected property sample will have a 0.5 acre or less source area.
4. Compare TCEQ Method 1005 results to respective COC concentrations of action levels to determine if action levels are exceeded or not.
5. If TCEQ Method 1005 results show any excedance of the action levels above, the material will be considered waste grade and will be disposed of at the appropriate landfill.
6. If TCEQ Method 1005 results are below action levels, the final product will be used for common applications outside the main cantonment/residential areas primarily in the training range areas.

If metal results are below action levels, the final product will be used for common applications outside the main cantonment/residential areas primarily in the training range areas. Both TPH and metals results must be below the established protective levels in order for final product to be acceptable.

Table 2

Tier 1 Residential Soil PCLs

Chemical of Concern	0.5 Acre Source Area	
	$^{Tot}Soil_{Comb}$ (mg/kg)	$^{GW}Soil_{Ing}$ (mg/kg)
Arsenic	24	5
Cadmium	52	1.5
Chromium (total)	33000	2400
Copper	550	1000
Lead (inorganic)	500	3
Mercury (pH = 4.9)[1]	3.6	0.0078
Molybdenum	160	49
Nickel and compounds	840	160
Selenium	310	2.3
TPH, TX1005, C6-C12	1600	65
TPH, TX1005, >C12-C28	2300	200
TPH, TX1005, >C12-C35	2300	200
TPH, TX1005, >C28-C35	2300	200
Zinc	9900	2400

Table 3

Texas Specific Background Concentration

Metal	Median Background Concentration (mg/kg)
As	5.9
Cr (total)	30
Cu	15
Pb	15
Hg	0.04
Ni	10
Se	0.3
Zn	30

8.7 Treated Soil Distribution

Bio treated soil will be moved from the Biotreatment Facility directly to its final destination, as determined by the evaluation results described in paragraph 8.6. The soil database is updated with the final destination of the bio treated soil including final TPH concentration and amount distributed to each location. Beneficial re-use purposes include activities where Fort Hood would otherwise be required to excavate and use clean soil or purchase off-site soils.

8.8 Documentation and Reporting

Reports will be submitted quarterly to the TCEQ demonstrating that minimum 10% recovery for reuse is being achieved. The following information will be documented and kept for a minimum of three years:

- batch numbers identifying the final product sampling batch;
- the quantities, types and sources of feedstocks received and the dates received;
- the date of sampling; and
- all analytical data used to characterize the final product, including laboratory quality assurance/quality control data.

Fort Hood anticipates that materials recovery will be 10% or more by weight or weight equivalent of the total incoming waste stream for reuse. The Biotreatment method previously described will assure that the 10% requirement per §333.9(f) (1)

is achieved. The remaining non-recyclable waste will be transferred to the Fort Hood Landfill (Permit # MSW 1866) which is located approximately 5 miles from the Biotreatment Facility.

8.9 Personnel

The Biotreatment Facility operations personnel and responsibilities include:

Biotreatment Facility Operator -- The Biotreatment Facility Operator duties consist of:

- Overseeing soil turn-ins and ensuring that materials are source separated (no trash or other materials mixed in with the soil)
- Calibration of all monitoring and testing equipment
- Collecting a DA Form 3161 from the unit and ensuring that it is correctly filled out and signed
- Assisting the units with off-loading in the staging area
- Determining feedstock components and ratios
- Preparing batch materials for processing
- Mixing and maintaining windrows by batch, including moisture and temperature monitoring and turning of windrows according to the Biotreatment Facility Processing Manual.
- Watering soil batches as determined from moisture monitoring
- Records management and soil database entries as needed
- Creating and documenting turn-in appointments for units/activities that call the facility
- Receiving all DA Form 3161's from units/activities turning in contaminated soil
- Checking the 3161's to ensure they are properly completed and signed
- Inputting documents, tracking and final delivery documents into the Biotreatment facility operations database
- Filing hardcopies of the documents
- Maintaining contaminated soil records including analytical results as appropriate and necessary if and when contaminated soil is used as a feedstock source.
- Serve as the Primary Emergency Coordinator

The Facility Operator holds a current Class B MSW Operator License.

Solid Waste Program Manager – The solid waste program manager has overall responsibility for the operation of the Biotreatment Facility, periodically reviews work done by the Operator and ensures that all regulatory requirements are being met, including training.

8.10 Equipment

- Front-end Loaders (John Deere tractor w/ 1 cy bucket and Bobcat front end loader
- Vermeer Windrow Turner
- Mixing attachments: rotary tiller, spring-tooth harrow, disc
- Trom 406 shaker/shredder
- Liquid Fertilizer Sprayer
- Traveling Irrigation Sprayers
- Temperature Monitoring Instruments
- Moisture Monitoring Instruments

In the event of equipment repairs or maintenance, the facility will obtain equipment as needed from other facilities, contractors, or local rental companies to avoid interruption of Biotreatment facility services.

8.11 Security and Safety

The Bio Site is located within the boundaries of Fort Hood, which is a gated facility with restricted access. The Bio Site facility has an eight-foot chain-link fence surrounding the perimeter of the facility. The site has a single access point secured by lock and key with signs around the perimeter indicating authorized personnel only are allowed on the site. When the site is open, Bio Site personnel are present to prevent unauthorized access to the site. The Bio Site is typically open from 7:30 to 16:30 Monday through Friday except for federal holidays.

CONTINGENCY PLAN- FORT HOOD BIOTREATMENT FACILITY

Implementation of the Contingency Plan. The decision to implement the contingency plan depends upon whether or not an imminent or actual incident could threaten human health or the environment. Such incidents could stem from fire, explosions, or flood events that may cause a release of contaminated material from the facility.

Emergency Coordinators. The Fort Hood Solid Waste Program Manager responsible for the Biotreatment Facility is Mr. Jerry Mora. Mr. Earl Hawkins is the Biotreatment Facility Operator. Representatives of Fort Hood's Environmental Division and the Fort Hood Fire Department will react to the initial notification of an emergency. The Environmental Division can be reached during normal business hours by calling (254) 287-6499. During off-duty hours an Environmental Division representative can be reached by phoning the Directorate of Public Work's Dispatcher (Bravo) at (254) 287-2113. In case of emergency the following emergency notification procedures apply.

Fort Hood Fire Department/HAZMAT Team: (254) 287-3908 or (254) 287-7127

Primary Contacts:

Biotreatment Facility Operator:	Earl (Dee) Hawkins (254) 535-0658 Bldg 1953, 37th and North Avenue Ft. Hood, TX 76544
Solid Waste Program Manager:	Jerry Mora (254) 535-3501 Bldg 4622, Engineer Drive Ft. Hood, TX 76544

In the event of an emergency the primary emergency coordinator will:

- Notify affected and/or appropriate personnel
- Consult with Directorate of Public Works management in regard to notifying appropriate state or local agencies with designated response roles if their help is needed.
- Whenever there is a release, fire, or explosion, the emergency coordinator shall immediately identify the character, exact source, amount, and areal extent of any released materials.
- The emergency coordinator shall assess possible hazards to human health or the environment that may result from release, fire, or explosion. The assessment shall consider both direct and indirect effects of the release, fire, or explosion.
- If the determination is made that the facility has had a release, fire, or explosion, that could threaten human health or the environment outside the facility, the coordinator shall:
    - Immediately notify local authorities if evacuation is advisable.

- As soon as possible, but no later than 24 hours, notify the TCEQ Regional Office. This notification shall be made during business hours. After working hours the notification will be made to the Texas Emergency Response Unit at (512) 2392507 or the State Toll Free Emergency Hotline at 1-800-832-8224. If federal reportable spill quantities are exceeded, notification will be made to the National Response Center at 1-800-424-8802. Spill reports shall include:

  Possible hazards to human health or the environment outside the facility.
  Name and telephone number of the reporter
  Name and address of the facility
  Time and type of incident
  Name and quantity of material(s) involved

- The emergency coordinator shall take all reasonable measures to ensure that fires, explosions, and releases do not occur, recur, or spread to other equipment or stockpiles at the facility.
- Immediately after an emergency, the coordinator shall provide for treating, storing, and/or disposing of recovered water, contaminated soil and surface water, and any other material that results from a release, fire, or explosion at the facility.
- The emergency coordinator shall ensure that, in the affected area(s) of the facility, all emergency equipment listed in the contingency plan is cleaned, decontaminated, and fit for its intended use before operations are resumed.
- The facility operator shall notify the executive director and appropriate state and local authorities that the facility is in accordance with subsection (d) of this section before operations are resumed in the affected area(s) of the facility.
- The facility operator shall note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, the Fort Hood Environmental Management Office shall submit a written report on the incident to the TCEQ executive director. The report shall include:

  - Name, address, and telephone number of the facility owner or operator;
  - Name, address, and telephone number of the facility;
  - The facility's registration number;
  - Date, time, and type of incident (e.g., fire, explosion);
  - Name and quantity of materials involved;
  - The extent of injuries, if any;
  - An assessment of actual or potential hazards to human health or the environment, where this is applicable; and
  - An estimated quantity and disposition of recovered material that resulted from the incident.

Emergency Equipment

Spill response equipment is currently maintained in two Fort Hood Fire Department HAZMAT trailers and at the Fort Hood Directorate of Public Works (DPW) Classification Unit (CU). The CU is located approximately 600 meters to the southeast of the Biotreatment Facility. Spill response supplies are also available in DPW Environmental vehicles assigned to operators of the Biotreatment Facility. An inventory of the spill supplies maintained at the CU is as follows:

Item	In Stock	Item	In Stock
3" x 10" Spill Sock	27	Plastic Shovel	10
2' x 2' Sorbent Pads	40	Tyvek Coveralls	1 case
8" x 10" Booms	22	Face Shields	24
33' x 300' Oil Mat	22	Goggles	100

Environmental vehicles at the site are equipped with two-way radios capable of communicating with the DPW dispatcher and with cellular phones.

Evacuation Plan

Initial evacuation is determined in accordance with the Emergency Response Guidebook and prevailing conditions such as direction and rate of spillage, weather, wind, and hazard. In the event of a release, the Fort Hood Fire Department Incident Commander and Directorate of Public Works (DPW) Environmental Division's Installation On-Scene Coordinator (IOSC) consider the need to evacuate personnel from affected areas.

If evacuation is necessary, the IOSC coordinates with the Fire Department, Provost Marshall (Military Police), and Medical Department Activity to determine the needs and scope of evacuation.

Fire Prevention and Suppression

The following steps are taken regularly at the facility by designated personnel to prevent fires:

- The Biotreatment Facility Operator will prohibit open burning of any materials at all times at the Bio Site.
- The Biotreatment Facility Operator will be alert for signs of burning soil such as smoke, steam, or heat being released from incoming loads and/or compost
- Equipment will not remain in the vicinity of exposed contaminated soil or compost overnight;
- Equipment that is used will be routinely cleaned through the use of high pressure water. The high pressure water or steam cleaning will remove soil and caked material that could cause equipment overheating and increase fire potential. If equipment is cleaned inside the

Biotreatment Facility, the amount of water used to clean the equipment will be minimized
- Biotreatment Facility personnel will immediately remove dead trees, brush, or vegetation immediately adjacent to the Biotreatment Facility to create a fire break; and
- Smoking is not permitted inside the Biotreatment Facility.

The following procedures will be implemented in the event of a fire or explosion:

- The employee who first becomes aware of the fire will immediately notify the Emergency Coordinator. The Primary EC is the Biotreatment Facility Operator. The Alternate EC is the Solid Waste Program Manager
- The EC will assume full responsibility for implementing emergency response measures
- Upon notification of a fire, regardless of size, the EC will immediately contact the Fort Hood Fire Department by dialing 117 or (254) 287-3908. The Biotreatment Facility Operator shall direct vehicles out of the staging area immediately. The Biotreatment Facility Data Analyst shall deny access to the Biotreatment Facility to any vehicle other than emergency response vehicles

Once the fire has been extinguished, the EC will ensure proper decontamination of any equipment used to fight the fire before returning it to its proper location. The Fort Hood Fire Department Senior Officer on scene will direct efforts in extinguishing the fire and work with the EC if Biotreatment Facility equipment or assets are needed. The ultimate concern is the safety of customers and personnel, and, secondly, the care of the operating equipment.

After responding to the incident, the EC will meet with the Fort Hood Fire Department Senior Official on scene to determine the cause of the fire. The identified causative agent will be removed from the vicinity of the Biotreatment Facility, if the possibility of re-ignition exists. Appropriate actions (e.g. exclusion from the Biotreatment Facility of the causative agent, more frequent equipment maintenance, etc.) will be developed to prevent its recurrence. All personnel involved with the handling, transport, and placement of the materials at the Biotreatment Facility will be informed of resultant actions. Changes in operating protocol or procedures resulting from this meeting will be documented

TCEQ Notification
After any fire (related to waste management activities that cannot be extinguished within 10 minutes of discovery) occurs, the TCEQ regional office will be contacted. The notification to the regional office will include:

- Contact by telephone as soon as possible, but no later than four hours following fire discovery, and,
- Provide a written description of the cause and extent of the fire and the resulting fire response within 14 days of fire detection.

8.12 Control of Unauthorized Dumping

The Biotreatment Facility is fenced and locked when facility personnel are not present to prevent unauthorized dumping. Biotreatment Facility personnel manage the site during operating hours, and screen all soils when delivered. The Biotreatment Facility Operator checks the soil for non-processable, prohibited, and unauthorized material.

8.13 Control of Wind-Blown Materials

Watering activities associated with the composting process minimize wind dispersal of the soil. Typically, if the compost material is dry enough to be dispersed by wind; it is likely that it is necessary to increase the moisture content of the windrows. Added water will reduce or eliminate wind dispersion of materials.

8.14 Storm Water Control

The facility has a concrete berm around the entire perimeter reducing both run-on and run-off of storm water. Additionally, the topography around the site is sloped away from the Biotreatment Facility, further reducing run-on.

The surface area of the pre-treatment and Biotreatment pads is approximately 140 feet by 260 feet for a total of 36,400 square feet, not including the inclined portions of the pad that facilitate additional storage and operations area for the Biotreatment Facility. The average depth is 4 feet. The volume is approximately 145,600 cubic feet (1,089,088 gallons). The concrete pads slope to the west end of the facility, where a six-inch diameter cast iron pipe and valve lead to a closed loop water system consisting of a lined collection pond capable of holding an additional 8.5 acre-feet of storage. During normal operations, the valve is kept closed and excess process water or residual storm water is allowed to evaporate.

8.15 Vector Control

A fence surrounds the perimeter of the site, and the entire base of the facility is concrete, making it impossible for animals to burrow under the fence.

8.16 Quality Assurance/Quality Control

For quality assurance and quality control (QA/QC), analysis of batch samples will follow QA/QC criteria found in Chapter 1 of the EPA publication SW-846, entitled Test Methods for Evaluating Solid Waste. In general, these QA/QC procedures that will ensure that the results presented are accurate and are not influenced by sample contamination or interference.

9. CONSTRUCTION PLANS AND SPECIFICATIONS

Biotreatment operations are configured as shown in Figure 9-1. In establishing the treatment operations, no permanent structural changes were constructed on the Biotreatment Facility.

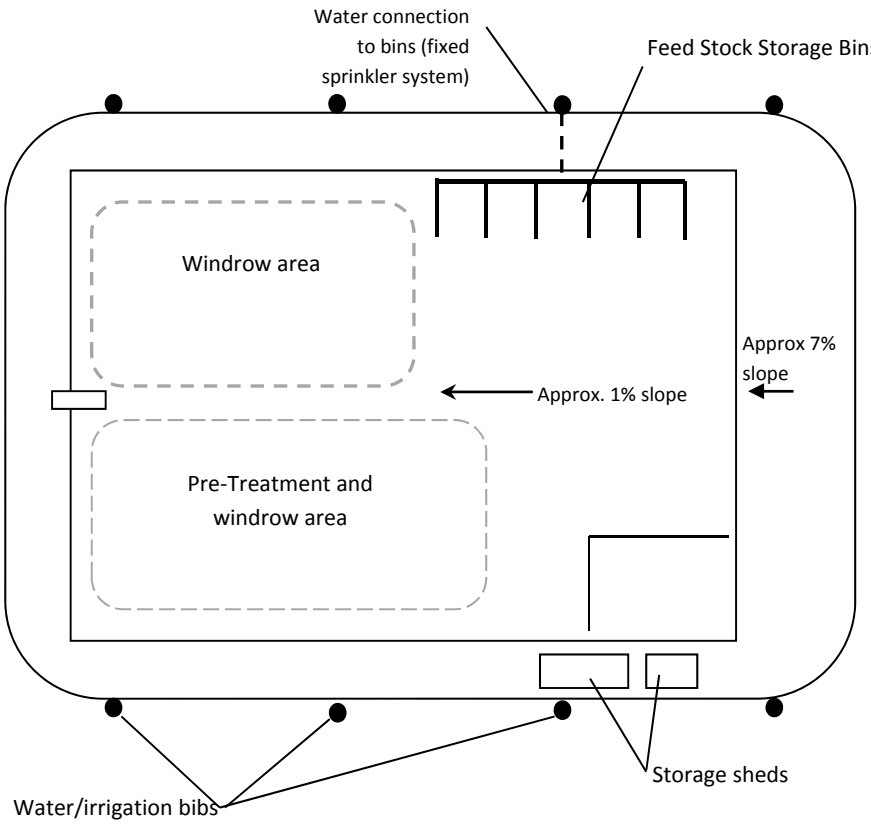
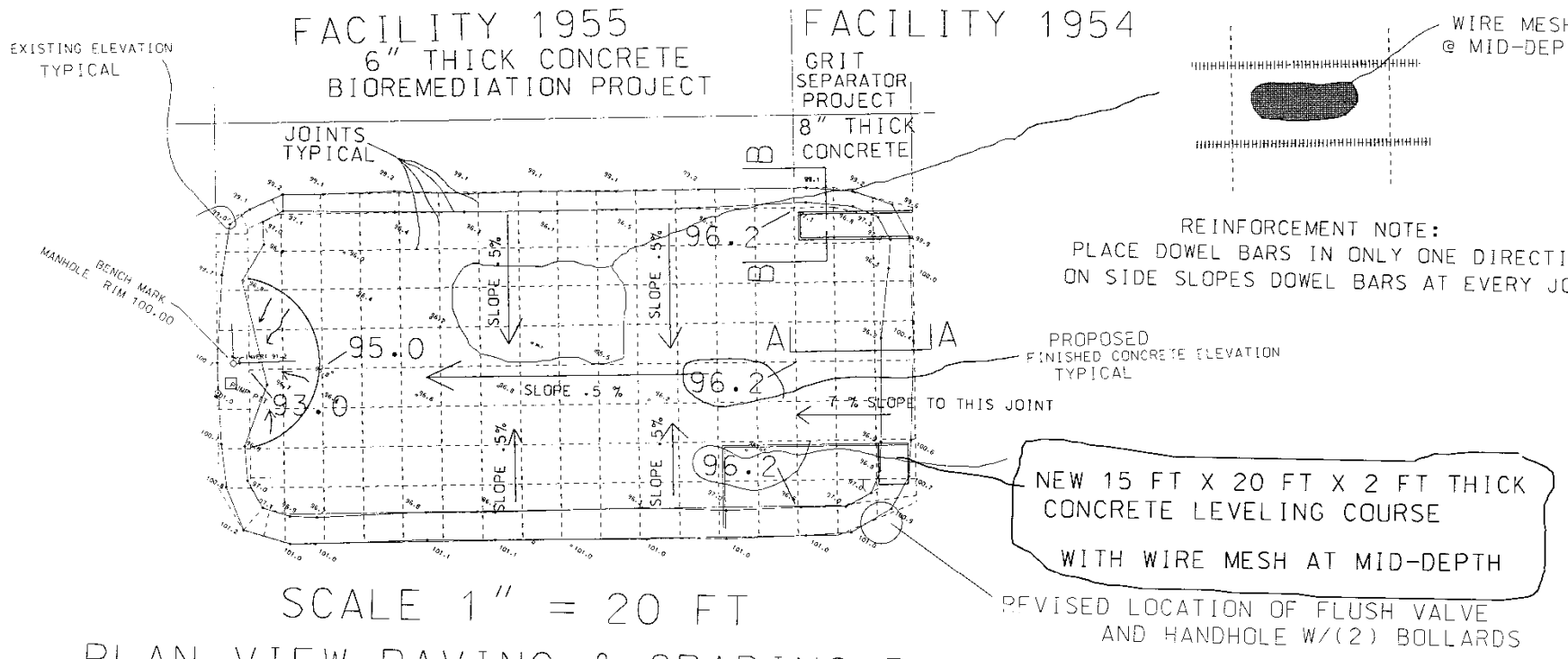


Figure 9-1: Biotreatment Facility Operations (not to scale)
Fort Hood, Texas

The proposed Biotreatment Facility was originally constructed as a sand filter for treating water from the vehicle wash racks (north pad), and the concrete pad was constructed for treating petroleum-contaminated soils. Copies of original engineering drawings showing construction details of the Biotreatment Facility are provided on Figures 9-2 through 9-4. No calculations supporting the drawings are available. At the time of design and construction of the Bio Site Pad, engineering drawings completed by Federal employees (engineers) for Federal Facilities did not require an engineer's seal.

The Biotreatment Facility is designed to capture and detain storm water that is then drained through pipes to the wash rack treatment ponds to the north. Figure 9-3 is a design

drawing from the original sand filter design that shows drainage pipes from the basins. The Biotreatment pad occupies approximately 62,000 square feet. As an example, a 1-inch rain event will produce approximately 5,166 cubic feet of runoff that is fully captured and treated.



SCALE 1" = 20 FT

PLAN VIEW PAVING & GRADING PLAN

SCOPE OF WORK

1. REMOVE THE SAND FILTER WATER DISTRIBUTION SYSTEM AND CAP THE 20" PVC NEAR PUMP PIT/MOTOR CONTROLLED BUTTERFLY VALVE. SEE SHEET C3 OF 3 FOR THE EXISTING TYPICAL SAND FILTER WATER DISTRIBUTION PLAN.
2. EXCAVATE AND FILL WITH THE EXISTING SAND IN BOTTOM OF PIT. COMPACT WITH STEEL WHEELED ROLLER TO THE REQUIRED SUBGRADE ELEVATIONS. THE INTENTION IS TO REMOVE ALL VEGETATION AND TREE ROOTS WITH THE REMOVAL OF THE SAND.
3. SAND MAY BE USED ON THE SIDE SLOPES TO FILL IN THE VOIDS OF THE BALLAST STONE WITH NO COMPACTTION REQUIRED.
4. CONCRETE:
   PLACE CONCRETE JOINTS AS INDICATED ON THE PLAN VIEW.
   SEE CONCRETE SECTION DETAILS FOR REINFORCEMENT AND THICKNESS.
   PLACE THE FINISHED SURFACE OF CONCRETE AS REQUIRED BY THE PLAN VIEW.
   MATCH THE EXISTING GRADE AT THE TOP OF SLOPE AROUND THE PERIMETER.
5. SPECIAL SHAPE THE CONCRETE NEAR EXISTING MANHOLE.
6. CONSTRUCT NEW 6" CAST IRON PIPE WITH VALVE THRU EXISTING MANHOLE.
7. CONSTRUCT NEW VALVE WITH CAST IRON VALVE BOX FOR THE EXISTING 12" PVC PIPE.
8. CONSTRUCT GRIT SEPARATOR PER DETAIL.

REVISED 21 JULY 97

SYMBOL	REVISIONS DESCRIPTIONS	DATE	APPROVED

DEPARTMENT OF PUBLIC WORKS
FORT HOOD, TEXAS

DESIGNED BY:	BIOREMEDIATION & GRIT SEPARATOR FACILITY
DRAWN BY:	FACILITY No. 1954 & 1955
REVIEWED BY:	
SCALE:	PROJECT NO. EV0005369P EV0001869P — SEQ. NO.
DATE: NOV 96	DM NO.

FILE NAME: PAVE.DGN SHEET 9 OF 12

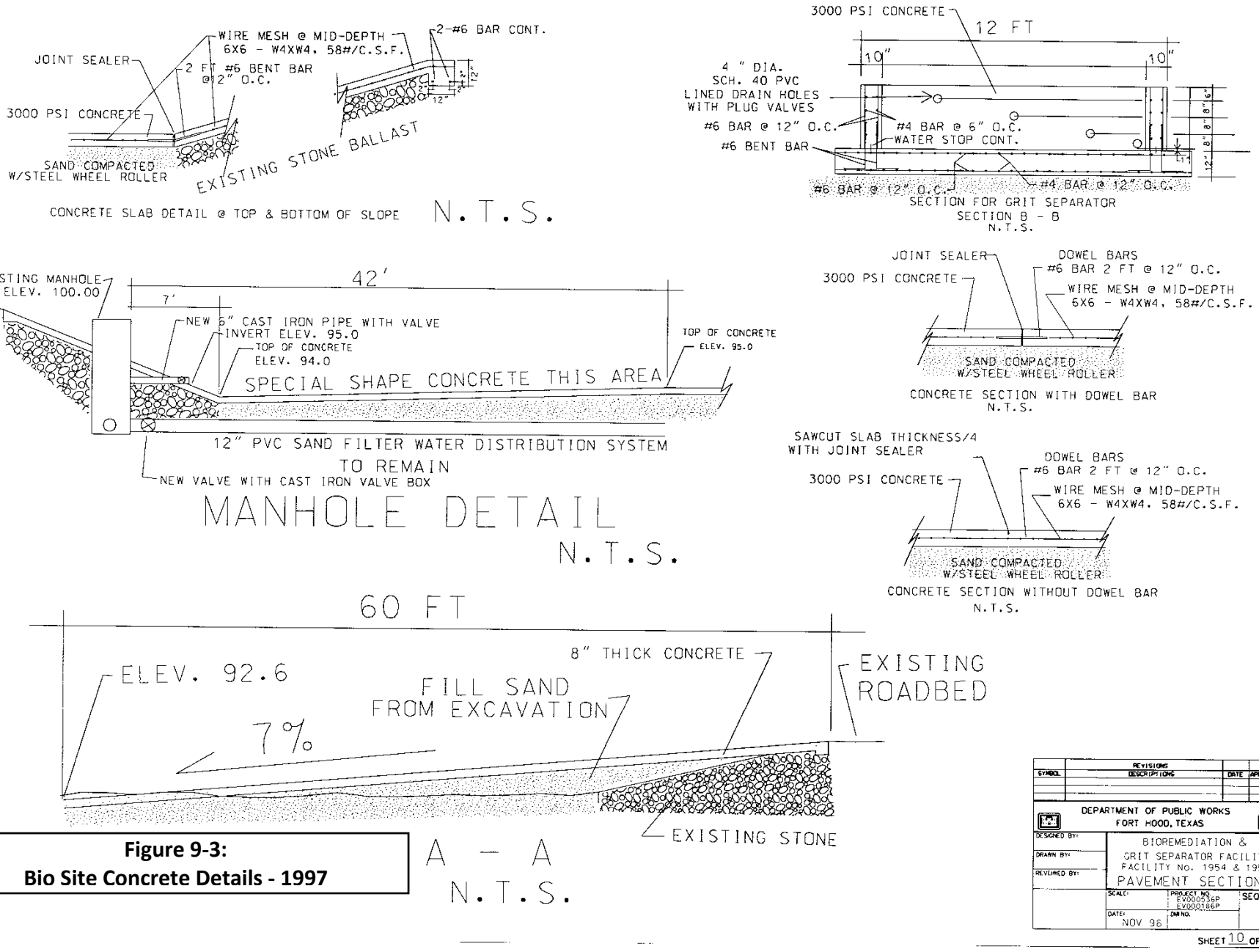
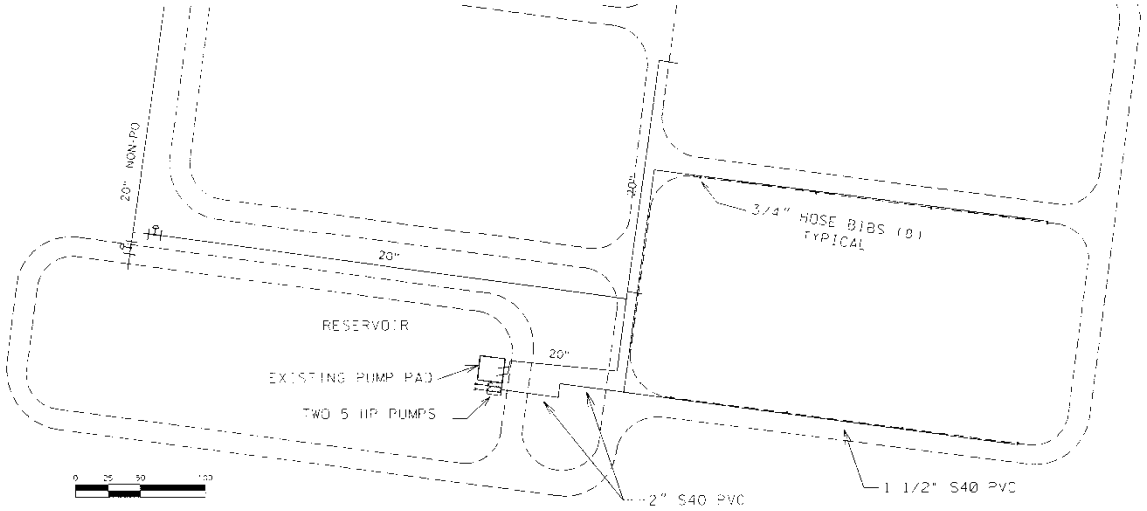


Figure 9-3:
Bio Site Concrete Details - 1997



PLAN VIEW SITE MAP

NOTES:

CONTRACTOR SHALL:

1. PROVIDE 4" CONCRETE HOUSEKEEPING EQUIPMENT PAD AS SHOWN.

2. PROVIDE PUMPING SYSTEM: PER EQUIPMENT SCHEDULE. PROVIDE ALL REQUIRED PIPING SYSTEM TO INCLUDE FLEX CONNECTIONS, HOSE BIBS, AND VALVES PER DETAILS. PIPING INSTALLED UNDER GRAVEL ROAD SHALL BE SLEEVED. SEE DETAILS.

3. PROVIDE EIGHT (8) 3/4 INCH HOSE BIBS, FREEZE PROOF, PER PLANS AND DETAILS.

4. PUMP SYSTEM SHALL HAVE MANUAL ON/OFF POWER (SYSTEM SWITCH) MOUNTED ON ELECTRICAL CONTROL PANEL.

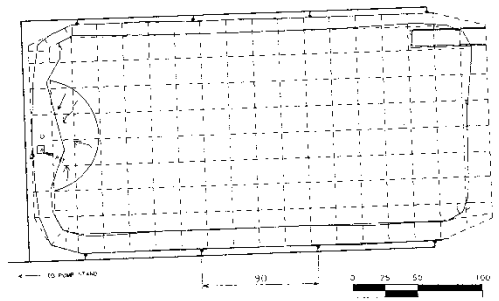
5. ALL ABOVE GRADE PUMPING AND PIPING SYSTEMS SHALL BE HEAT TAPED AND INSULATED.

6. PROVIDE FLOOR MOUNTED VALVE BOX WITH LOW POINT SYSTEM DRAIN AS SHOWN ON PIPING SCHEMATIC.

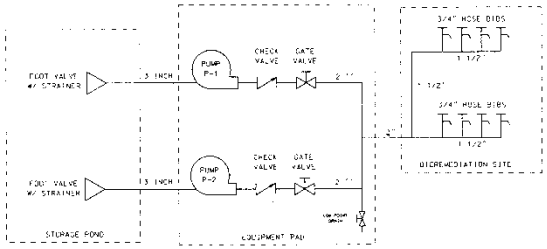
7. PROVIDE GRAVEL OVER TRENCH.

EQUIPMENT SCHEDULE - PUMPS

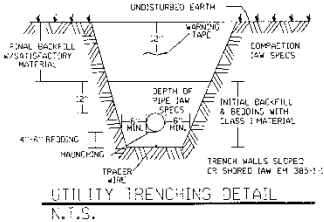
TYPE	UNIT	QTY	STATIC HEAD	TOTAL HEAD	GPM	RPM	HP	ELECTRICAL			
								VOLT	PHASE	MAX AMPS	HZ
FLOOR MOUNTED	SA	2	60 PSI	198 FT	40	3500	5	230/460	3	12-15	60



PLAN VIEW Piping and hose bib location



PIPING SCHEMATIC
(NOT TO SCALE)



UTILITY TRENCHING DETAIL
N.T.S.

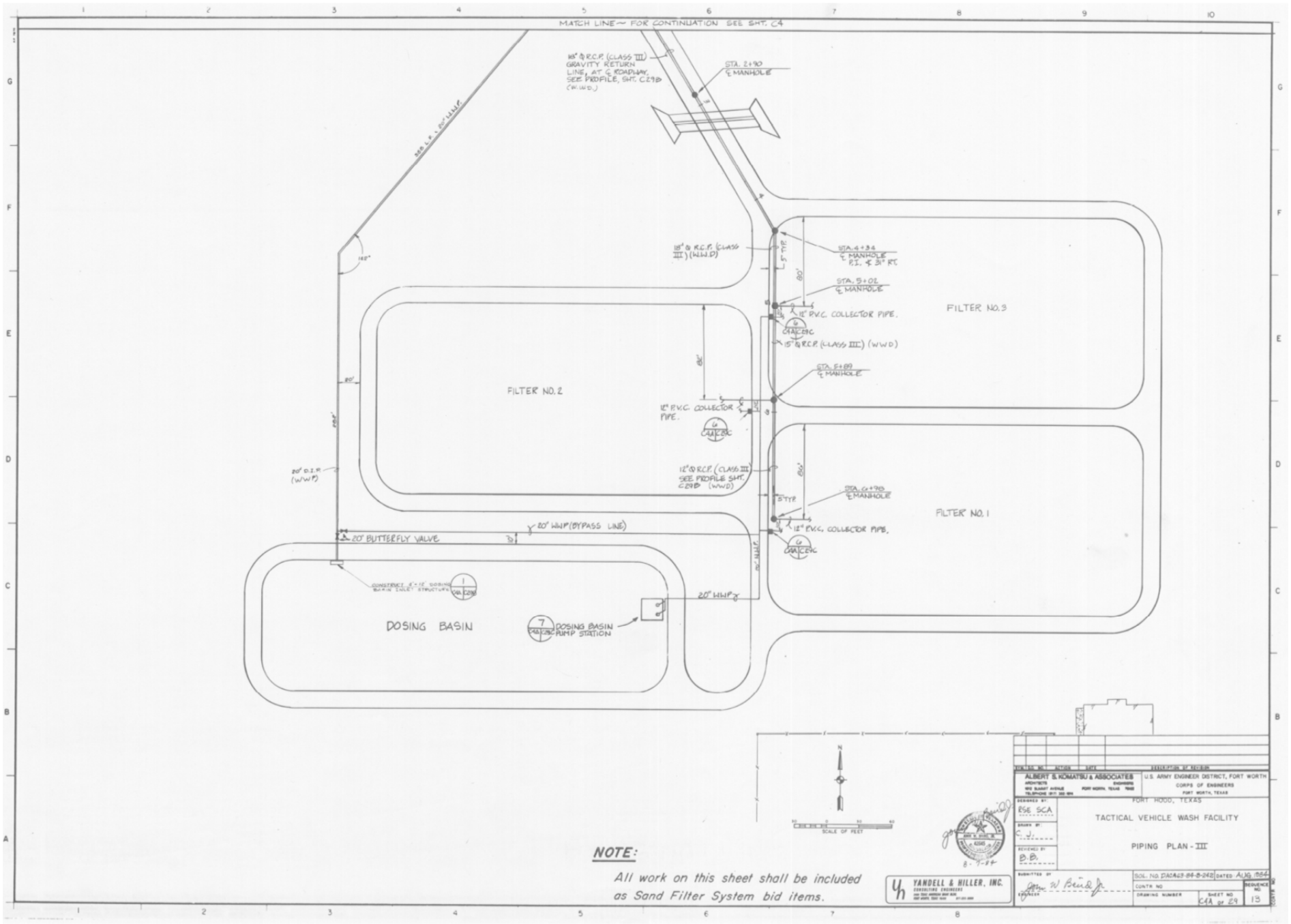
SYMBOL	REVISIONS DESCRIPTIONS	DATE	APPROVED

DEPARTMENT OF PUBLIC WORKS
FORT HOOD, TEXAS

DESIGNED BY: G. WALGATE	BIOREMEDIATION & GRIT SEPARATOR FACILITY FACILITY NO. 1954 & 1955
DRAWN BY: G. WALGATE	MECHANICAL PLAN
REVIEWED BY: H. MEHRABIAN	

SCALE: AS SHOWN	PROJECT NO. FY0006360 EV0001860	SEQ. NO.
DATE: 15 NOV 96	DWNO.	

SHEET 11 OF 12


MATCH LINE — FOR CONTINUATION SEE SHT. C4
18" Ø R.C.P. (CLASS III) GRAVITY RETURN LINE, AT ℄ ROADWAY, SEE PROFILE, SHT. C29B (W.W.D.)
STA. 2+90 ℄ MANHOLE
300 L.F. 4 20" HWP
15" Ø R.C.P. (CLASS III) (W.W.D)
STA. 4+34 ℄ MANHOLE P.I. & 31° RT.
STA. 5+02 ℄ MANHOLE
15" P.V.C. COLLECTOR PIPE.
15" Ø R.C.P. (CLASS III) (W.W.D)
FILTER NO. 3
STA. 5+89 ℄ MANHOLE
FILTER NO. 2
15" P.V.C. COLLECTOR PIPE.
12" Ø R.C.P. (CLASS III SEE PROFILE SHT. C29B (W.W.D)
20" O.I.P. (W.W.P)
STA. 6+70 ℄ MANHOLE
FILTER NO. 1
12" P.V.C. COLLECTOR PIPE.
20" HWP (BYPASS LINE)
20" BUTTERFLY VALVE
CONSTRUCT 8'-0" x 12'-0" DOSING BASIN INLET STRUCTURE
20" HWP
DOSING BASIN
DOSING BASIN PUMP STATION
SCALE OF FEET
NOTE:
All work on this sheet shall be included as Sand Filter System bid items.
YANDELL & HILLER, INC.
ALBERT S. KOMATSU & ASSOCIATES
U.S. ARMY ENGINEER DISTRICT, FORT WORTH
CORPS OF ENGINEERS
FORT WORTH, TEXAS
FORT HOOD, TEXAS
TACTICAL VEHICLE WASH FACILITY
PIPING PLAN - III
DESIGNED BY RSE SCA
DRAWN BY C. J.
REVIEWED BY B.B.
SUBMITTED BY
SOL. NO. DACA63-84-B-0242 DATED AUG 1984
CONTR NO
DRAWING NUMBER
SHEET NO C4A OF 29
SEQUENCE NO. 13

10. CLOSURE PLAN

This section identifies the procedures that Fort Hood will follow to close the Biotreatment Facility. Once approved, amendment of this closure plan may be requested if there are changes in operating plans or facility design.

Closure: At closure Fort Hood will remove the concrete pad, liner, and piping and close the site under 30 TAC §350 requirements. Verification sampling and over-excavation will be performed in accordance with 30 TAC 350.

Sampling Strategy: Samples of the soil underlying the Biotreatment Facility concrete pad will be collected from 24 equally-spaced locations on approximate 50-foot centers and analyzed. Five discrete background samples will also be collected adjacent to and upgradient from the facility. Results from the background sampling will be used to establish cleanup levels for closure. The samples will be analyzed for TPH and Polynuclear Aromatic Hydrocarbons (PAH). Test methods are Method 1005 for TPH, and 8100 or 8270C for PAH. Analyses will be conducted using strict adherence to the methods specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, Third Edition, U.S. Environmental Protection Agency, 1986

Quality Assurance/Quality Control: The quality assurance and quality control (QA/QC) criteria found in Chapter 1 of SW-846 will be followed. In general, these QA/QC procedures include use of duplicates, matrix spike/matrix spike duplicates, field or rinsate blanks, method blanks, laboratory control samples, trip blanks, and surrogates. SW-846 also specifies procedures for acceptable sample holding times and custody tracking. These measures will ensure that the results presented are accurate and are not influenced by sample contamination or interference

Closure Cost Estimates: In accordance with 30 TAC §334.91(c), state and federal governments are exempt from the closure cost estimate requirement. Therefore, a closure cost estimate has not been prepared.

11. FINANCIAL ASSURANCE

As an agency of the Federal Government, Fort Hood is not required to complete financial assurance mechanism requirements.