

# ACTION MEMORANDUM

## Iron Mountain Road Addition Fort McClellan, Alabama



### **Geographic Corps District:**

U.S. Army Corps of Engineers, Mobile District

### **Prepared by:**

U.S. Army Corps of Engineers  
Engineering and Support Center, Huntsville, Alabama

May 2009

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## **ACTION MEMORANDUM**

### **FOREWORD**

This Action Memorandum documents the selected munitions and explosives of concern (MEC) response action under the Base Realignment and Closure (BRAC) program for approximately 10.07 acres of Fort McClellan located in Calhoun County, Alabama. It serves as the primary decision document substantiating the need for a response action, identifying the response action, and explaining the rationale for the response action. As the primary decision document, this Action Memorandum is a component of the administrative record, required by Section 113(k) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This Action Memorandum is based on the Final Engineering Evaluation/Cost Analysis (EE/CA) (U.S. Army Corps of Engineers, Engineering and Support Center, Huntsville (USAESCH), July 2008) for this site and has been developed in a manner consistent with CERCLA as amended, and with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 CFR 300.120d, 40 CFR 300.415).

APPROVED:



Thomas E. Lederle

Chief, Industrial Branch

Army BRAC Division

18 MAY 2009

Date

## **1.0 INTRODUCTION**

An EE/CA was conducted for the Iron Mountain Road Addition, a 10.07 acre parcel of land, located within the boundaries of the former Fort McClellan, Alabama. Fort McClellan was a United States Army Training and Doctrine Command (TRADOC) facility that was closed in September 1999 under the BRAC Program. A location map is included at Appendix A – Figure 1. The primary use of Fort McClellan had been for troop training (e.g., artillery, small arms, chemical warfare) and mobilization activities. Over the century of its history, Fort McClellan developed and redeveloped over 100 ranges, training areas, and maneuver areas. Because of its large array of overlapping ranges, Fort McClellan’s Military Munitions Response Program was structured to cover large areas rather than discrete ranges. These large areas are known as the Alpha Area, Bravo Area, Charlie Area, Eastern Bypass Area, M1.01 and M3 Miscellaneous Area, and the M2 Area. The Iron Mountain Road Addition EE/CA addresses approximately 7.27 acres of land located in the Bravo Area plus an additional 2.8 acres located in the A2 Area south of the Bravo Area as shown in Appendix A – Figure 2. The Iron Mountain Road Addition is planned for transfer to the Alabama Department of Transportation (ALDOT) for construction of a bypass off-ramp. The objectives of the EE/CA were to evaluate the amount, type, and general location of MEC within the parcel; evaluate the potential risks to human health and the environment due to the presence of MEC; and assess and recommend the most technically feasible and cost-effective approach for reducing the risk of exposure to MEC. The EE/CA provides information in support of a Non-Time Critical Removal Action (NTCRA).

## **2.0 STATEMENT OF BASIS AND PURPOSE**

The purpose of this Action Memorandum is to document the U.S. Army’s decision regarding the selected risk-reduction alternative taken to address the possible presence of MEC that may pose a threat to human health and the environment in the area of the Iron Mountain Road Addition of Fort McClellan, Alabama. The Department of Defense may address explosives safety hazards, to include unexploded ordnance (UXO), on closed, transferring, and transferred (CTT) military ranges using the EE/CA process that is described in the NCP. Response activities may include removal actions, remedial actions, or a combination of the two. The selected response action

described in this Action Memorandum is based on the July 2008 Iron Mountain Road Addition EE/CA and input from stakeholders. As a result of the comprehensive evaluation of alternatives presented in the EE/CA, Construction Support was selected as the most appropriate response action for the area. This response action will provide risk reduction and protectiveness to construction workers in an area of low risk. Construction Support allows for direct training of workers and professional UXO support during the construction phase of the off-ramp. It is effective, implementable, and less costly than clearance to maximum depth of detection and provides effective risk management; it provides substantially the same level of protectiveness as clearance to maximum depth of detection due to the presence of on-site UXO personnel and the likelihood that excavations will exceed the maximum detectable depth; and it provides an alternative with a high degree of regulatory and public acceptance.

The basis for this decision is documented in the Administrative Record for the site. The Administrative Record is maintained at the U.S. Army Transition Force, 291 Jimmy Parks Boulevard, Fort McClellan, Alabama. In addition, copies of the project documents are available for public access at two information repositories located at:

Anniston Calhoun County Public Library  
1<sup>st</sup> Floor  
108 East 10<sup>th</sup> Street  
Anniston, Alabama 36201  
Point of Contact: Ms. Sunny Gillespie  
Telephone: (256) 237-8501, Extension 13

Houston Cole Library  
9<sup>th</sup> Floor  
700 Pelham Road  
Jacksonville State University  
Jacksonville, Alabama 36265  
Point of Contact: Ms. Paula Barnett-Ellis  
Telephone: (256) 782-5249

### **3.0 PROJECT JUSTIFICATION**

The Iron Mountain Road Addition EE/CA was conducted utilizing historical information, aerial photography, and investigative data derived from two previous EE/CAs and a field reconnaissance. The investigations that form the basis for characterization of the Iron Mountain Road Addition are the Draft Final Bravo Area EE/CA (Tetra Tech EC, Inc (TTECI), July 2006), the EE/CA for the Proposed Eastern Bypass (Zapata Engineering, April 2000), and a field reconnaissance for the A2 Area (TTECI, December 2001).

#### **BRAVO AREA VICINITY RESULTS**

During the Bravo EE/CA, the Bravo Area was divided into 17 Ordnance and Explosives (OE) risk assessment sectors. The Iron Mountain Road Addition falls within the M3-Remainder Area-PR risk assessment sector. The OE risk assessment sector consists of 1,043 acres in the central and southern portion of the Bravo Area. While several ranges were located in the M3-Remainder Area-PR, only the extreme southeastern edge of the Washington Tank Range (OA-54) firing fan, shown in Appendix A – Figure 3 extends into the Iron Mountain Road Addition.

The Bravo Area site characterization was completed in two separate phases. The original sampling effort took place between April 2001 and August 2002. Additional transect sampling was conducted in July 2004. Investigation grids and transects used in the characterization effort for the Iron Mountain Road Addition are noted on Appendix A – Figure 4. The investigation transects used in the characterization effort contained cultural and/or range related debris only. The investigation grids contained munitions debris as summarized in Table 3-1, and cultural and/or range related debris. No MEC was identified in the vicinity of the Iron Mountain Road Addition.

Table 3-1

**Summary of MD Found**

Grid	Item Found	Qty	Classification
B556	37 mm target practice tracer	1	Munitions Debris
	Signal flare (expended)	1	Munitions Debris
	Practice 37 mm Armor Piercing Tracer	1	Munitions Debris
	Practice Rifle Smoke Grenade Tail Booms	2	Munitions Debris
	Grenade Spoon	1	Munitions Debris
	Grenade fuze, functioned	1	Munitions Debris
	Illumination grenade, functioned	3	Munitions Debris
B557	Grenade Spoon	1	Munitions Debris
	M127 Signal Illumination	1	Munitions Debris
B559	Simulator, functioned	1	Munitions Debris
	M49A1 Trip Flare	1	Munitions Debris

**EASTERN BYPASS OES3 RESULTS**

The Eastern Bypass Ordnance and Explosives Site 3 (OES3) comprises 259 acres of the Eastern Bypass EE/CA area. OES3 is significant because it borders the southwest edge of the Iron Mountain Road Addition. A ground reconnaissance of OES3 was performed in August 1998. During ground reconnaissance activities, only one expended M18 smoke grenade and one expended simulation charge were found. No MEC was discovered during the reconnaissance. As a result, the selected remedy for OES3 in the approved Eastern Bypass Action Memorandum, August 2001, was No Further Action.

## **A2 AREA RESULTS**

The A2 Area is a buffer area that was investigated to verify that the correct boundary associated with the Bravo Area EE/CA was delineated. The field reconnaissance was performed in November and December 2001. Area A2 is 189 acres, which includes the 2.8 acres of the Iron Mountain Road Addition located between the Bravo Area and OES3 of the Eastern Bypass. The only ordnance item found during the reconnaissance effort was a single expended smoke grenade. No other MEC or munition debris was found.

### **4.0 ALTERNATIVES CONSIDERED**

Three munitions response action alternatives were developed and evaluated for the Iron Mountain Road Addition. Each of the alternatives was evaluated in terms of their effectiveness, implementability, and cost. The alternatives included in the EE/CA are as follows:

- Alternative 1–No Further Action (NFA) – The No Further Action alternative requires no further action at the site.
- Alternative 2–Construction Support – Construction Support will be provided in accordance with U.S. Army Corps of Engineers’ guidance document EP 75-1-2, Munitions and Explosives of Concern (MEC) Support During Hazardous, Toxic, and Radioactive Waste (HTRW) and Construction Activities (August 1, 2004) and includes a UXO team that will maintain an on-site presence.
- Alternative 3– Clearance to Maximum Depth of Detection – This alternative includes the clearance of MEC to the maximum depth of detection. Under this alternative, investigation (i.e, excavation) of an anomaly (i.e, suspect MEC) will continue until the source of the anomaly is found or until it is determined that no MEC is present.

### **5.0 HIGHLIGHTS OF COMMUNITY PARTICIPATION**

The final EE/CA document was placed on file in the Administrative Record and Information Repositories on November 13, 2008, for the public to review. The availability of the EE/CA in the Administrative Record was announced in the local newspaper, the Anniston Star, and the public was provided a 30-day review and comment period. A public meeting was held on

December 9, 2009, to allow the public an opportunity to ask questions and comment on the project.

The Fort McClellan Restoration Advisory Board (RAB) meets on a quarterly basis to advise the Army on restoration activities for the Fort McClellan cleanup. The RAB participated in the EE/CA process and was invited to the public meeting. Although the RAB provided no specific comments, the Army has kept the RAB up to date on the status of the Iron Mountain Road Addition action through its quarterly meetings.

## **6.0 COORDINATION SUMMARY**

Project activities for the Iron Mountain Road Addition EE/CA were coordinated with the Alabama Department of Environmental Management (ADEM). ADEM has been directly involved throughout the EE/CA process to ensure protection of public health and the environment and consistency with Federal and state environmental regulations and policies. A copy of the ADEM approval letter for the EE/CA is attached in Appendix B.

## **7.0 SELECTION CRITERIA**

The selection criteria used to evaluate the three response action alternatives consisted of the effectiveness in reducing the public safety risks, the implementability of the alternative, and the cost of implementing the alternative. The effectiveness criterion involved consideration of four criteria: protection to human health and the environment; compliance with Applicable or Relevant and Appropriate Requirements (ARARs) or other requirements; long term effectiveness and permanence; and short term effectiveness. The implementability criterion considered technical feasibility and availability of services, materials, and administrative feasibility. Implementability included regulatory acceptance and community acceptance. Cost was evaluated for each alternative. The cost for each alternative was developed using current cost estimating tools and techniques. These criteria are discussed further in Section 7.3 of the EE/CA report.

## **8.0 DESCRIPTION OF SELECTED ALTERNATIVE**

The recommended response action for the Iron Mountain Road Addition is Alternative 2 – Construction Support. Construction Support includes a UXO team that will meet with on-site

management and construction personnel to conduct a general work and safety briefing, including potential site hazards and site-specific safety considerations, MEC on-site support procedures, responsibilities and lines of authority for any MEC response, and emergency response procedures. The UXO team will maintain an on-site presence during construction and identify and discuss visual observations and any potential areas of concern that may be identified by the construction team. During grubbing, clearing, or earthmoving activities, one member of the UXO team will be positioned to the rear and upwind of excavation equipment for continuous visual observation of activities. If the construction contractor unearths or otherwise encounters a military munition, all excavation activities will cease. The UXO team will assess the condition of the military munition to determine if a disposal action is required. Excavation will not continue until a detailed assessment of the potential of encountering additional MEC is completed. All activities will be in accordance with EP 75-1-2.

The overall estimated cost to implement the selected alternative is \$92,178.

Any residual risk that may remain at the site will be managed through the inclusion of a deed notice in the property transfer documents that provides notification procedures in the event a MEC item is discovered. The Army will perform a recurring review every five years after the implementation of the selected munitions response action. This effort will be performed to determine if the munitions response action continues to be protective of human health, safety, and the environment.

Based on the estimated costs presented in this Action Memorandum, the appropriate approval level for this project is the BRAC Division Branch Chief.

## **9.0 TRADE-OFF ANALYSIS**

The alternative recommended is the best alternative for the area, as documented in the EE/CA report.

## **10.0 DOCUMENTATION OF SIGNIFICANT CHANGES**

The Iron Mountain Road Addition is adjacent to lands which were previously transferred to the ALDOT for construction of the Eastern Bypass. The planned reuse of the Iron Mountain Road

Addition is an off-ramp for the Eastern Bypass. Lack of implementation of the response action could delay road work and impact the future redevelopment of the property.

## **11.0 RESPONSIVENESS SUMMARY**

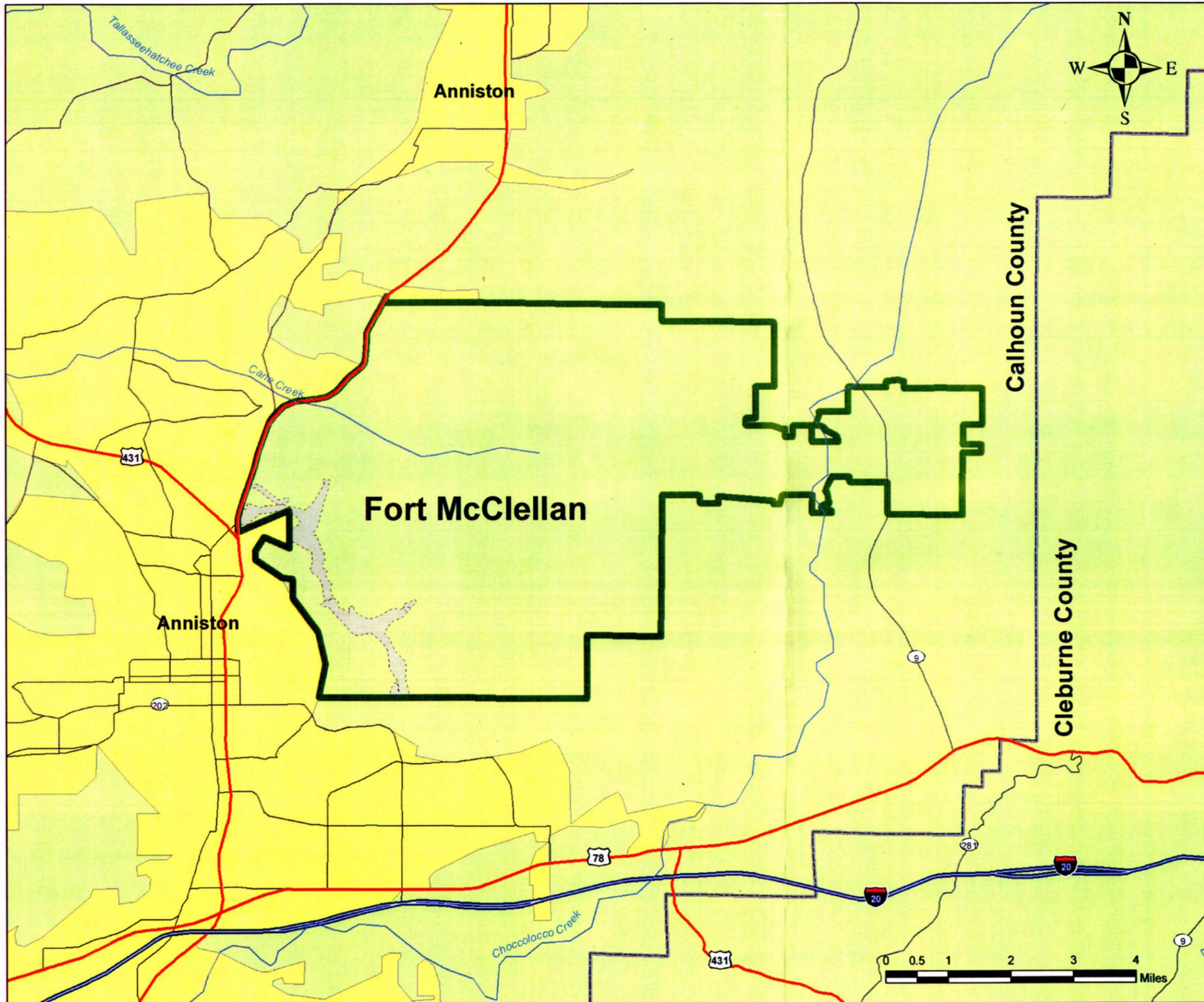
A responsiveness summary is provided in Appendix C in the form of comments received and the resolution of the comments.

## **Appendix A**

### **Figures**

# Appendix A Figure 1

## Fort McClellan Anniston, Alabama Location Map



### Legend

- Rivers & Streams
- Interstate Highway
- Major Highway
- Road
- Property Boundary
- Bypass Area
- Urban Area

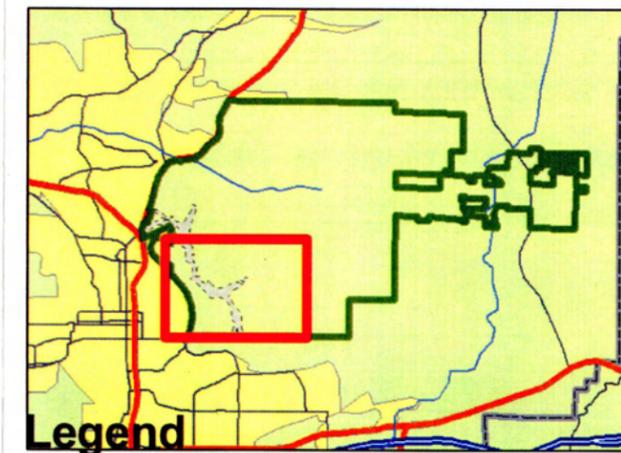
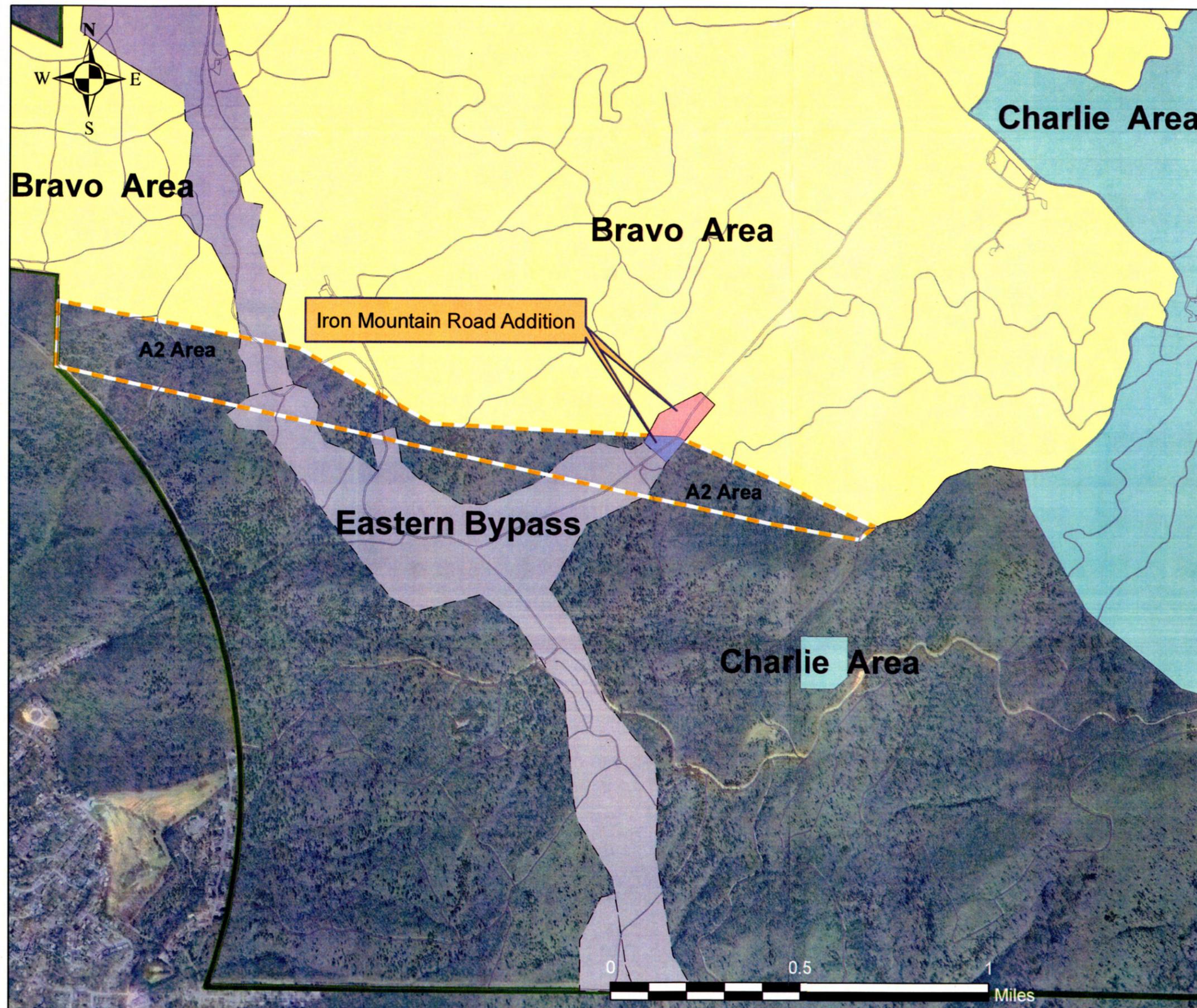
<b>Environmental Protection &amp; Utilities Branch</b> <b>EPUB-GIS TEAM</b>		<b>U.S. Army Engineering and Support Center</b> <b>Huntsville, AL</b>	
Drawn By: <b>GDW</b>	Date Drawn: <b>29 May 08</b>	Project No.:	
<small>MXD: \\hnc-is-gis\edg\PROJECTS\States\AL\McClellan\EECA_\IronMRoad\MXD\ApdxA_Fig1.mxd</small>		<small>PDF: \\hnc-is-gis\edg\PROJECTS\States\AL\McClellan\EECA_\IronMRoad\PDF\ApdxA_Fig1.pdf</small>	



DISCLAIMER - The data represent the results of data collection/processing for a specific U.S. Army Corps of Engineers activity and indicates the general existing conditions. As such, it is only valid for its intended use, content, time, and accuracy specifications. The user is responsible for the results of any application of the data for other than its intended purpose.

Appendix A Figure 2

Fort McClellan  
Anniston, Alabama  
Eastern Bypass  
Iron Mountain Road Addition

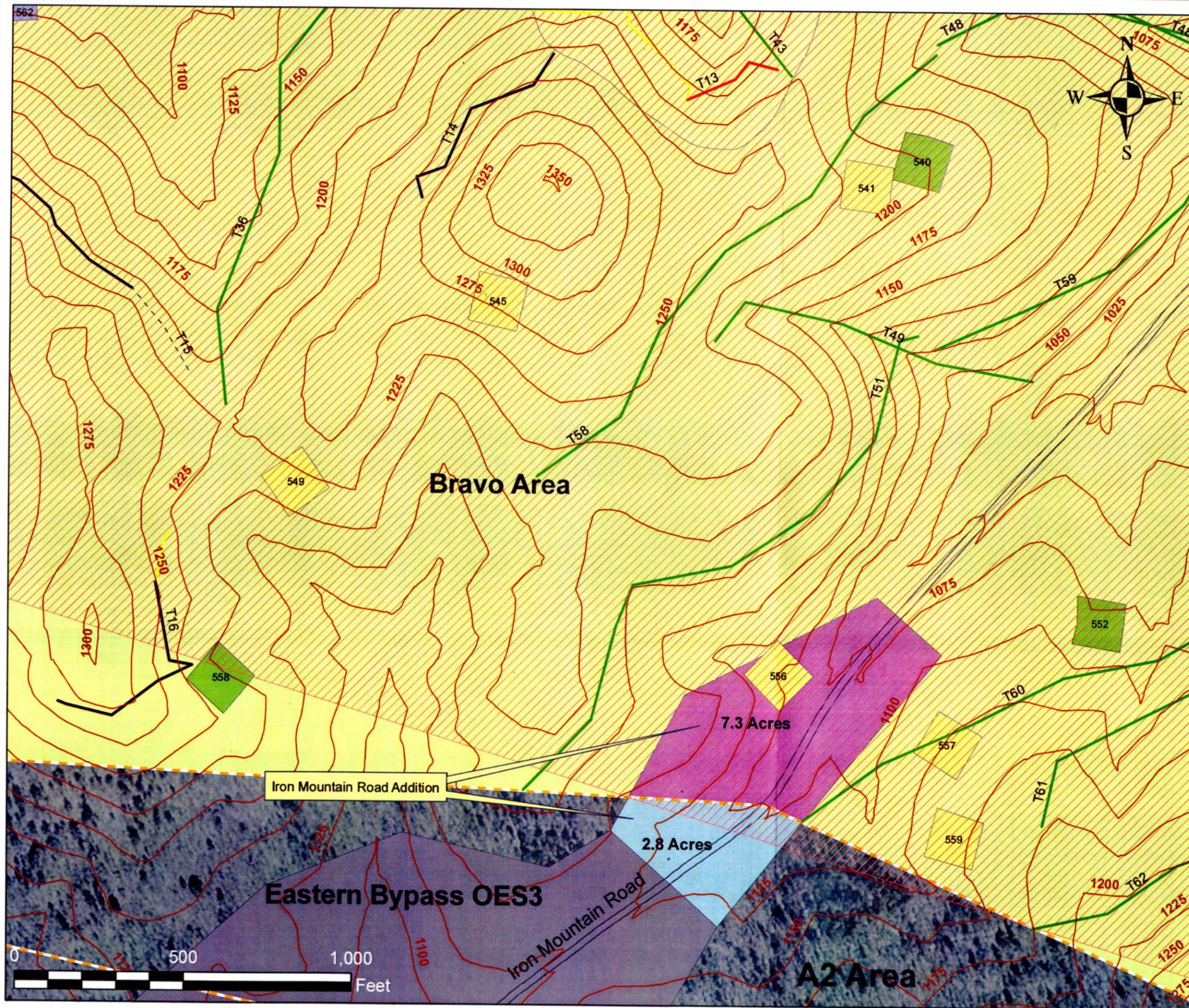
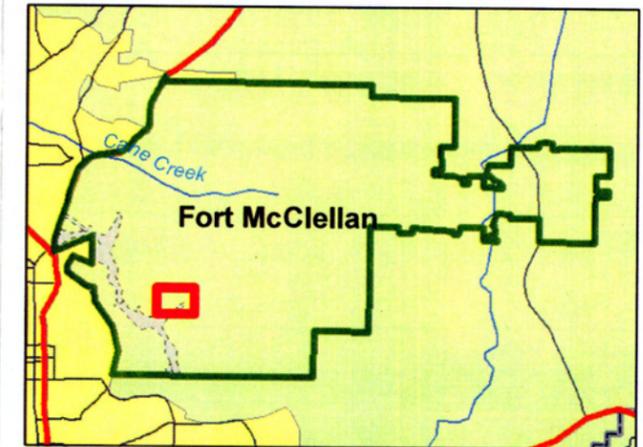


- Legend**
- Roads
  - 2.8 Acre Parcel
  - 7.3 Acre Parcel
  - - - A2 Area Boundary
  - Eastern Bypass
- Area**
- Charlie Area
  - Bravo Area
  - Fort McClellan Boundary

<b>Environmental Protection &amp; Utilities Branch</b> <b>EPUB-GIS TEAM</b>		<b>U.S. Army Engineering And Support Center</b> <b>Huntsville, AL</b>	
Drawn By: <b>BKR</b>	Date Drawn: <b>29 May 08</b>	Project No.:	
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		<small>DISCLAIMER - The data represent the results of data collection/processing for a specific U.S. Army Corps of Engineers activity and indicates the general existing conditions. As such, it is only valid for its intended use, content, time, and accuracy specifications. The user is responsible for the results of any application of the data for other than its intended purpose.</small>	

# Appendix A Figure 3

## Fort McClellan Anniston, Alabama Washington Tank Range Fan

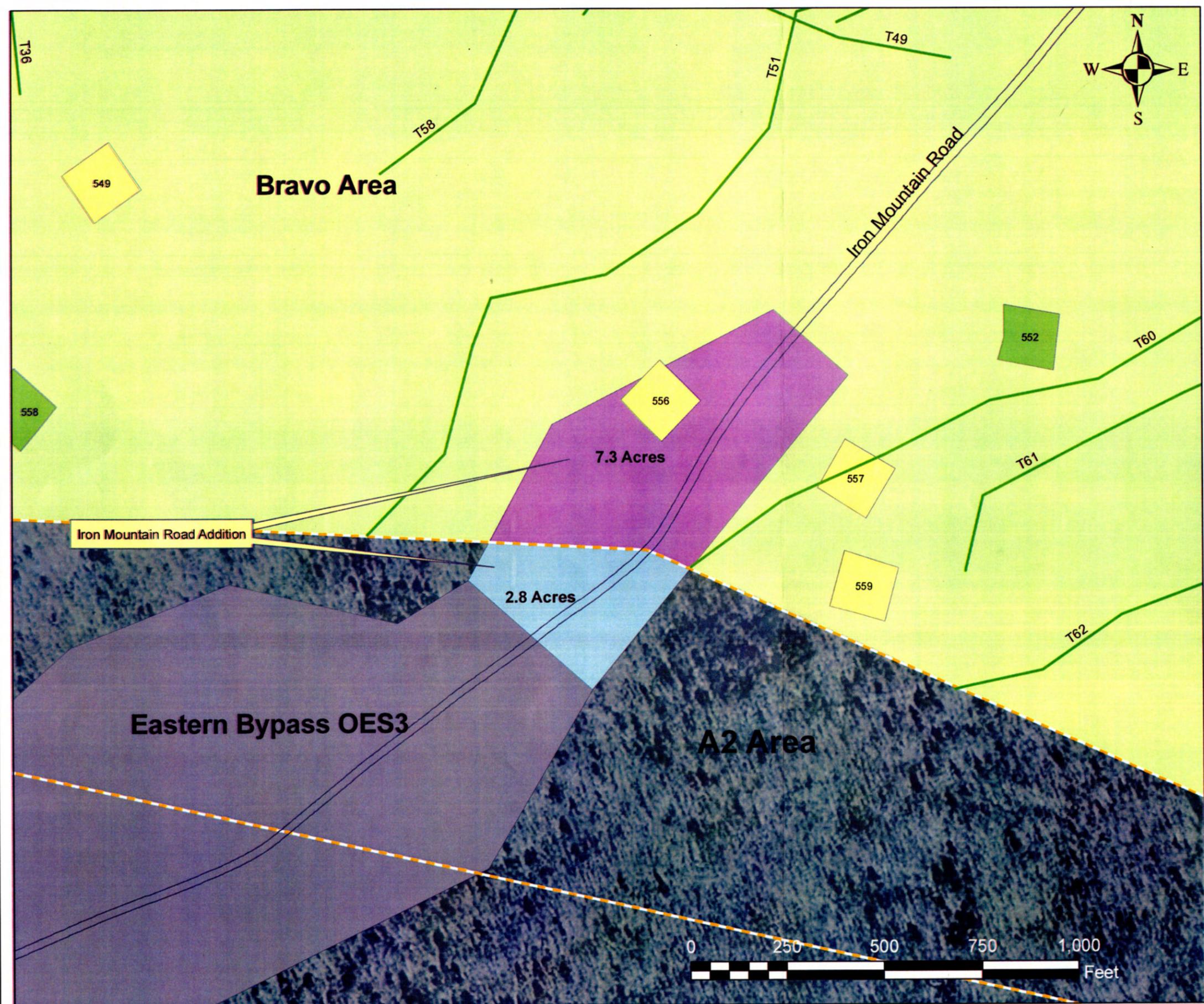


- |                     |                           |
|---------------------|---------------------------|
| 7.3 Acre Parcel     | <b>Mountain Transects</b> |
| 2.8 Acre Parcel     | <b>TargetType</b>         |
| Eastern Bypass OES3 | MEC                       |
| BRAVO AREA          | Munitions Debris          |
|                     | Small Arms                |
|                     | Range/Cultural Debris     |
|                     | No Metal Present          |
|                     | Washington Tank Range Fan |
|                     | <b>Bravo Grids</b>        |
|                     | <b>Target Type</b>        |
|                     | MEC                       |
|                     | Munitions Debris          |
|                     | Small Arms                |
|                     | Range/Cultural Debris     |
|                     | No Subsurface Finds       |
|                     | Roads                     |
|                     | A2 Area Boundary          |

<b>Environmental Protection &amp; Utilities Branch</b> <b>EPUB-GIS TEAM</b>		<b>U.S. Army Engineering And Support Center</b> <b>Huntsville, AL</b>	
Drawn By: <b>GDW</b>	Date Drawn: <b>29 May 08</b>	Project No.:	
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		<small>DISCLAIMER - The data represent the results of data collection/processing for a specific U.S. Army Corps of Engineers activity and indicates the general existing conditions. As such, it is only valid for its intended use, content, time, and accuracy specifications. The user is responsible for the results of any application of the data for other than its intended purpose.</small>	

Appendix A Figure 4

Fort McClellan  
Anniston, Alabama  
Iron Mountain Road Addition  
Previous MEC Investigations  
(Grids and Transects)



7.3 Acre Parcel	<b>Mountain Transects</b>
2.8 Acre Parcel	<b>TargetType</b>
Eastern Bypass OES3	MEC
BRAVO AREA	Munitions Debris
	Small Arms
	Range/Cultural Debris
	No Metal Present
	<b>Bravo Grids</b>
	<b>Target Type</b>
	MEC
	Munitions Debris
	Small Arms
	Range/Cultural Debris
	No Subsurface Finds
	Roads
	A2 Area Boundary

Environmental Protection & Utilities Branch <b>EPUB-GIS TEAM</b>		U.S. Army Engineering And Support Center Huntsville, AL	
Drawn By: <b>GDW</b>	Date Drawn: <b>29 May 08</b>	Project No.:	
MXD: \\hnc-fs-gis\edg\PROJECTS\States\AL\McClellan\EECA_IronMRoad\MXD\ApdrA_Fig3.mxd	PDF: \\hnc-fs-gis\edg\PROJECTS\States\AL\McClellan\EECA_IronMRoad\PDF\ApdrA_Fig3.pdf	DISCLAIMER - The data represent the results of data collection/processing for a specific U.S. Army Corps of Engineers activity and indicates the general existing conditions. As such, it is only valid for its intended use, content, time, and accuracy specifications. The user is responsible for the results of any application of the data for other than its intended purpose.	

**Appendix B**

**ADEM Concurrence Letter for the EE/CA**



Alabama Department of Environmental Management  
adem.alabama.gov

1400 Coliseum Blvd. 36110-2059 ♦ Post Office Box 301463  
Montgomery, Alabama 36130-1463  
(334) 271-7700  
FAX (334) 271-7950

October 31, 2008

Mr. Scott Bolton  
Site Manager  
US Army Transition Force  
P.O. Box 5022  
Fort McClellan, Alabama 36205

**RE: ADEM Review and Concurrence:** *Army's Response to ADEM's Comment on Final Engineering Evaluation/Cost Analysis (EE/CA) Iron Mountain Road Addition*; received via email on October 16, 2008  
Fort McClellan, Calhoun County, Alabama  
Facility I.D. No. AL4 210 020 562

Dear Mr. Bolton:

The Alabama Department of Environmental Management (ADEM or the Department) has reviewed the *Army's Response to ADEM's Comment on the Final EE/CA Iron Mountain Road Addition*. Based on this review and discussions with the Alabama Department of Transportation (ALDOT), it is ADEM's understanding that ALDOT will conduct a geophysical survey and clear and grub the entire 11 acre area. Therefore, the Department concurs with the EE/CA and considers all comments to be resolved.

If you have any questions or concerns regarding this matter please contact Mrs. Brandi Little of the Remediation Engineering Section at 334-274-4226 or via email at [blittle@adem.state.al.us](mailto:blittle@adem.state.al.us).

Sincerely,

Wm. Gerald Hardy, Chief  
Land Division

WGH/JJW/BCL/mal

cc: Mr. Doyle Brittain/EPA Region 4  
Mr. Lee Coker/USA COE, Mobile District  
Mrs. Tracy P. Strickland/ADEM  
Ms. Miki Schneider/JPA  
Mr. Stephen Cobb/ADEM  
Mr. DeJarvis Leonard/ALDOT  
Mr. Buddy Cox/ALDOT  
Ms. Julie Ange/ADEM



## **Appendix C**

### **Responsiveness Summary**

ARMY RESPONSE TO COMMENTS PROVIDED BY MR. BUDDY COX, ALDOT

1. It appears that the Army conducted minimal geophysical investigation of the area. They relied primarily on archive search reports. The results of such a search are only as good as the data that is entered in the files. See page 23, 2.6.3, where the photos reviewed were from 1937-1994. Training started at the facility in 1898. Significant training for the Spanish American War and WWI was accomplished at the facility yet no photos for this period exist. What records are available for that time period which give assurance that no live fire/chemical agent training was conducted in the 11 acre area? Note 2.6.4, states the report is based on "reviewing available" records.

**RESPONSE:** Adequate geophysical investigation of the area was conducted to characterize the area. One investigation grid was located within the area and three additional grids were located 100'- 400' from the area. In addition to the grids, two transects were located in the immediate vicinity of the area with several other transects and grids located nearby. Section 2.6 of the EECA report cites six different references from previous investigations or studies that were consulted in the preparation of this report, of which the Archive Search Report was one. Of the records cited, none indicated activities specifically in the Iron Mountain Road Addition area. The geophysical investigations conducted and the information from other sources have provided sufficient information to accurately characterize the area without knowing all the exact locations of firing during the Spanish American War and World War I.

2. Section 3.1 states that Figure 3.1 shows grid and transect locations investigated. There are no transect lines. Note grid 556 shows a significant amount of debris. Was it on the surface or was it found with geophysical means? Section 3.3 again references transect lines on Figure 3.1. Section 3.3 also references transects T36, T49, T51, T58, T60, T61, and T-62 as being on Figure 3.1. The Figure 3.1 I have has no transect lines.

**RESPONSE:** Figure 3.1 of the final report dated July 2008 clearly shows transect lines in the Bravo Area. The Bravo Area transects cited bound the Iron Mountain Road addition area on the east, north and west. These transects were geophysically surveyed and investigated to resolve the anomalies. As stated in section 3.3 no Munitions and Explosives of Concern (MEC) were found. While only one grid (556) is located within the boundary of the Iron Mountain Road Addition, the three other grids cited (552, 557, 559) are within 400 feet of the subject area. All the grids mentioned had no MEC found. Debris in grid 556 was found at various depths from the surface to 4 inches. The debris that was found is indicative of a maneuver training area, not an impact area as noted in section 4.2.3.

3. Section 4.0 discusses risk analysis. It states in 4.2.3 that there is "very low" risk based on archive search reports as the records indicate the area was used primarily for troop maneuvers. Section 4.2.5 states that the entire Iron Mtn. Road Addition is to be used for construction of the highway off ramp. Section 4.2.6 discusses potential receptors, i.e. those who may be impacted by UXO. "Construction workers would potentially come in contact with MEC during excavation and other intrusive activities, although the probability is very low". "Users of the Eastern Bypass and maintenance workers would likely not come in contact with any MEC items, especially when considering that construction activities performed in this area would likely significantly reduce the current MEC risk even further, if not eliminating it."

Section 4.2.6 also reports that the tank range fan, even though it covers the 11 acres, would not impact the area as the mountain would block shells from falling in this area. I question the validity of this comment, especially for the area east of Iron Mtn. road. Also, one can set the trajectory of a round to come in on the immediate back side of a mountain. It would seem likely that gunners would be required to practice this type of a scenario just to insure rounds could be placed on an enemy dug into the back side of a mountain.

This entire section appears to attempt shift liability to ALDOT. I discussed the highlighted section with ADEM and their UXO consultant and he agreed that the wording was not right. I thought this section would be re-done, but that is obviously not the case. The highlighted portion above, in my opinion, states that our contractor's dozers will do the potential UXO clearing.

**RESPONSE:** The intention of this section is not to shift liability to ALDOT. DoD retains liability for Munitions and Explosives of Concern (MEC) regardless of the transfer of property. Section 4 does discuss the risk analysis, which considered historical records, previous investigations, current and future land use and potential receptors in order to evaluate the risk of finding MEC at this location. Based on those factors the risk of finding MEC was determined to be low. The risk is low whether a road is constructed or not. The fact that a large portion of the surface of this area will be disturbed in the construction process will not change the risk evaluation.

It is true that this area is on the southern border of the range fan for the Washington Tank Range. The records do not have a lot of discussion about the use of this range. But, it is also true that the transects and grids in and near the Iron Mountain Road addition did not have MEC found. It is true that there are several hilltops that are 200-300 foot higher than the subject area between the Iron Mountain Road addition area and the presumed firing line. Tanks are operationally used as direct fire weapons, meaning they see the targets they fire at. This is why this was evaluated as a low risk.

4. Section 7 is an analysis of response action alternatives and states in 7.1 that surface clearance and clearance to 1 foot depth was considered but excluded from further consideration because no MEC was identified on the surface of the parcel during the field investigation. See 1 and 2 above. What was the level of the field investigation and where are the transects?

**RESPONSE:** See response to 1 and 2 above.

5. Section 7.2.2 deals with construction support and states that "During grubbing, clearing, or earthmoving activities, one member of the UXO team will be stationed to the rear and upwind of excavation equipment for continuous visual observation of activities." I explained to ADEM and their UXO consultant that 1 person will not be able to cover multiple pieces of equipment that are operating simultaneously on the job.

Additionally, if a munition is found, "The UXO team will assess the condition of the military munition to determine if a disposal action is required. Excavation will not be continued until a detailed assessment of the potential of encountering additional MEC is completed." Who pays down time and delay costs if MEC is encountered?

**RESPONSE:** Noted. The Army will work with ALDOT to determine the appropriate level of support required for this work. Down time, delay time and stand by time is something that will have to be addressed in the contract between ALDOT and its road construction prime contractor. It is assumed that it will be handled as in other sources of delay that are out of their contractor's control, such as weather.

6. Section 7.5.2 seems to conflict with 7.2.2. Section 7.5.2 indicates that "...UXO personnel will be required to visually inspect the area prior to initiation of work activities and insure that proper safety precautions are implemented..." Section 7.4.2 states that there will be a person at the rear and upwind. Is Section 7.2.2 correct or is Section 7.5.2 correct?

**RESPONSE:** The complete sentence from section 7.2.2 states, "During grubbing, clearing or earthmoving activities, one member of the UXO team will be positioned to the rear and upwind of the excavation equipment for continuous visual observation of activities." This would not preclude the UXO personnel from also inspecting the area prior to initiation of these work activities. The onsite UXO personnel can do both.

7. Section 7.5.3 states that "Alternative 3, Clearance to maximum depth of detection is technically and administratively feasible however, ... this alternative poses significantly higher probability of complications and delays associated with geology, vegetation, weather conditions and other variables associated with earthwork. Technically, efforts associated with implementing this alternative will vary based on terrain and vegative cover,

and will require equipment, skills, personnel and technologies associated with land clearing and MEC detection, excavation, and disposal. UXO-qualified personnel must be used during implementation of all aspects of this alternative. Proper safety precautions must be implemented to prevent untrained individuals from handling MEC." The long and short of this whole sentence is this: It is cheaper and easier to let a bulldozer do the UXO clearance for us. Equipment operators are cheap compared to UXO/geophysical specialist.

**RESPONSE:** Construction Support is the recommended alternative as the most reasonable in order to provide risk reduction and protectiveness to construction workers in an area already evaluated as low risk because a) the documented historical use of this area, the types of munitions debris found, and the planned future use for the area all support the recommendation for the Construction Support alternative; b) Construction Support allows for direct training of workers during the construction phase of the off-ramp; and c) Construction Support provides onsite professional UXO personnel to identify and classify any item that may be found during construction.