

Joint Land Use Study Implementation

Fort Jackson-McCrary Training Center-McEntire JNGB



*Prepared for the Central Midlands Council of Governments with funding provided by the Office of Economic Adjustment
April 2013*

Joint Land Use Study Implementation



Fort Jackson-McCrary Training Center-McEntire Joint National Guard Base



FOREWORD



This implementation plan was prepared under contract with the Central Midlands Council of Governments, with financial support from the Department of Defense's Office of Economic Adjustment and matching funds and in-kind contributions from Richland County. The content of the plan reflects the views of the participating entities and does not necessarily reflect the views of the Office of Economic Adjustment.

The primary partners involved in the process included Richland County, the Central Midlands Council of Governments, Fort Jackson, McCrary Training Center, and McEntire Joint National Guard Base. In addition to these key partners, many stakeholders from across the county were involved, participating in interviews and serving on the JLUS Policy and Technical Committees, who provided oversight during the process.

The successful implementation of the strategies contained in this plan will help improve land use compatibility in the areas identified in the plan by improving communication between the study partners in conjunction with improved coordination and technical review and approval of future land use development in the defined military activity zones.



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Joint Land Use Study Implementation



Fort Jackson-McCrary Training Center-McEntire Joint National Guard Base



SECTION ONE INTRODUCTION



In November of 2009, the Central Midlands Council of Governments (CMCOG) Board of Directors adopted the Fort Jackson/McEntire Joint Land Use Study (JLUS), with Richland County and the City of Columbia addressing the JLUS in their respective comprehensive plan updates. The JLUS plan was the culmination of a cooperative planning process that brought together a diverse set of public and private stakeholders interested in preserving the long term viability of the military installations in the Central Midlands region. The primary outcome of this project was a prioritized list of recommended actions and strategies for reducing incompatible encroachment and facilitating future collaboration between the study partners. This plan was prepared to help the region move forward with implementing a number of the strategies that were recommended in the adopted JLUS through the development of two small area plans, focusing on portions of the larger JLUS study area that were identified as more vulnerable to future encroachment and compatibility issues. Originally conceived as separate studies, the local partners and the consultant felt that the similarity of the issues and the similar paths to ensuring future land use compatibility made a single plan a more

appropriate path forward. The two study areas include lands surrounding McEntire Joint National Guard Base and areas along the southern boundary of Fort Jackson paralleling the Leesburg Road Corridor. These areas are displayed in Figure's 1-2 and 1-3.

McEntire JNGB Study Area

This focus area surrounds the entire external boundary of the base and includes high noise and accident potential zones. In addition, the study area generally included land that may be impacted by the extension of water and sewer lines that are currently in the planning phases.

Fort Jackson / McCrary Training Center Study Area

This focus area includes those lands adjacent to the southern boundary of Fort Jackson and includes land along the entire length of the Leesburg Road Corridor, which is planned for a road widening project by SCDOT.



Figure 1-1: Over 150 Residents Attended the First Community Meeting Held at the Richland County Sheriff's Department Region One Substation.



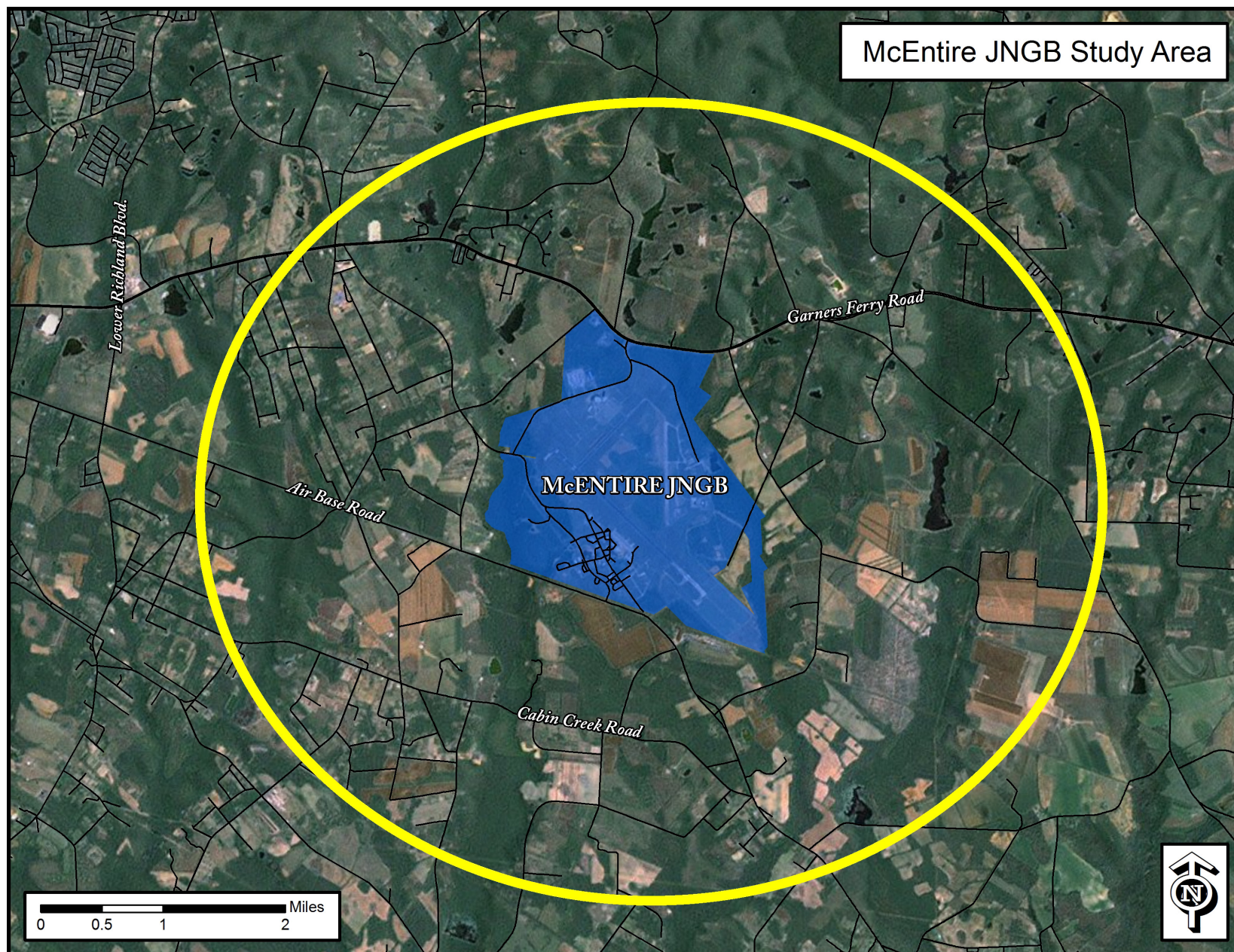


Figure 1-2: McEntire Joint National Guard Base Study Area



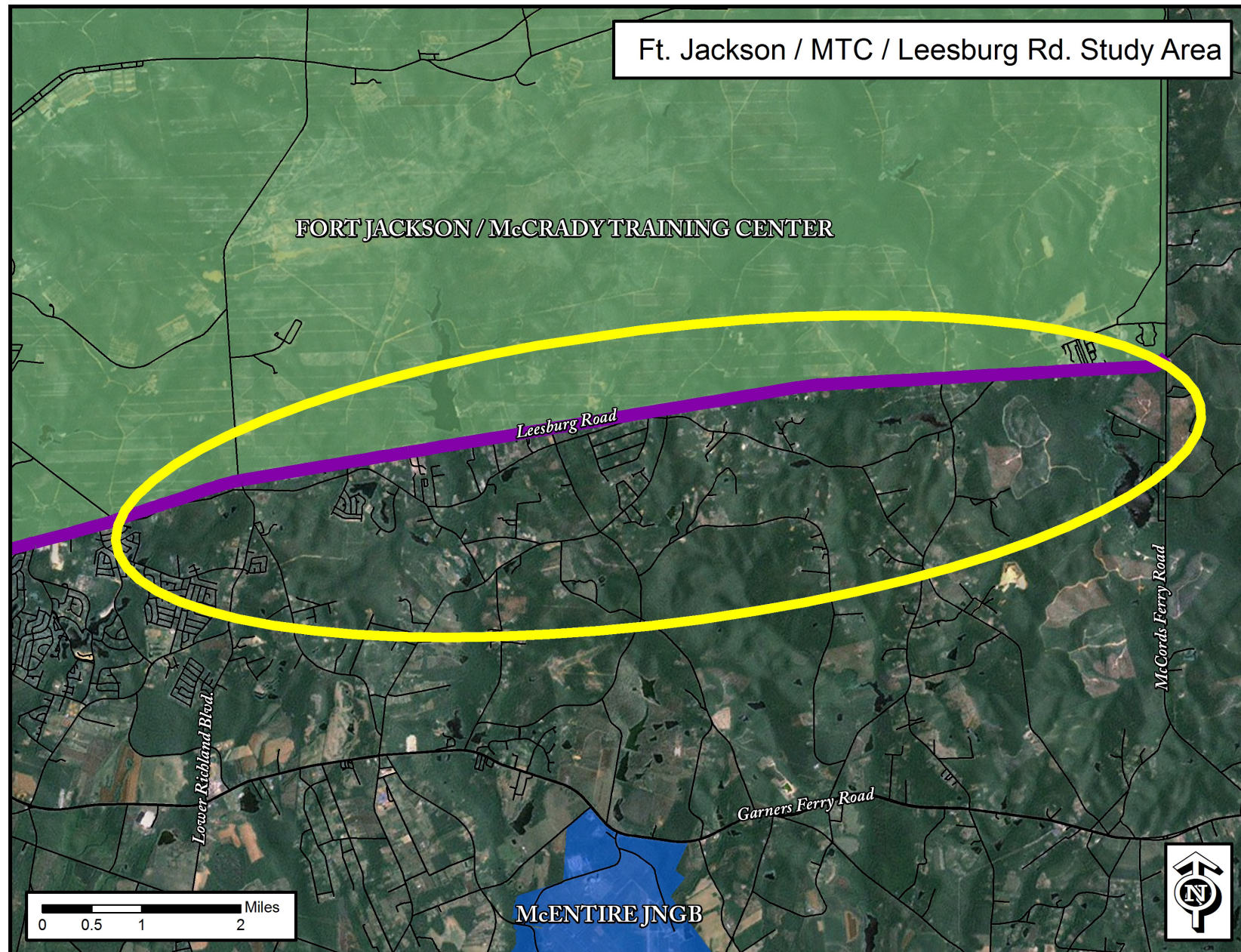


Figure 1-2: Fort Jackson / McCrary Training Center Study Area



JLUS Implementation Plan Goals

Although there were many important goals and objectives established in the 2009 JLUS, the purpose of this Joint Land Use Study Implementation Plan is to put into action several of those identified short-term recommendations in the defined study areas, including:

- Creating new overlay zoning codes for areas around Fort Jackson/McCraday Training Center and McEntire JNGB;
- Developing Comprehensive Plan language to promote community and military coordination; and
- Establishing an ongoing JLUS Partnership organization.

Economic Factors

The entire Central Midlands Region benefits from the dynamic presence of several key military training and operations installations located in Richland County; Fort Jackson, McCraday Training Center and the McEntire Joint National Guard Base. Many of the region's residents, particularly those in Richland County, rely on these installations for employment and other economic benefits. In addition, many of the troops that train at these facilities call Richland County home, with a large number of military personnel and DOD civilians retiring in the County and contributing to the social fabric of the community and increasing its quality of life.

In an effort to better understand the economic contributions of Fort Jackson/McCraday Training Center and McEntire JNGB to supplement findings from the 2009 JLUS, the South Carolina Department of

Commerce recently completed a study for the South Carolina Military Base Task Force in November of 2012 that identified the economic impacts of the eight military installations across the State. The study highlighted the following information for the installations in Richland County:

- Fort Jackson generated a total of \$2.012 billion in economic activity statewide and supported 19,834 jobs. These jobs earned approximately \$941 million in annual employee compensation.
- The 120,000 out-of-state civilians that visited Fort Jackson in 2011 generated a total of \$24.8 million in economic activity and supported at least 304 jobs earning approximately \$7.9 million in employee compensation.
- McEntire Joint National Guard Base generated a total of \$296 million in economic activity and supported 2,303 jobs. These jobs earned approximately \$61 million in annual employee compensation.

Although actual numbers were not singled out for the McCraday Training Center, the South Carolina Army National Guard generated a total of \$697 million in economic activity and supported 12,318 jobs with a sizable portion of the force training occurring at McCraday Training Center each year. These jobs earned approximately \$349 million in annual employee compensation.

Lower Richland Strategic Community Master Plan

As this planning process began, Richland County began a concurrent initiative to develop a plan for the Lower Richland County area. The



two study areas in this JLUS Implementation Plan fall within the larger footprint of the Lower Richland County study area. The Lower Richland Small Area plan is examining alternative growth scenarios related to future expansion of transportation and utilities in the region and the long-range plan for housing types, development character, land use density and other broader issues. As originally conceived, this study would have addressed a number of the issues that are the subject of the Lower Richland Small Area Plan. However, the County requested that this study focus more closely on the military land use compatibility issues to avoid any confusion for residents or direct overlap in the process. It is anticipated the Lower Richland Small Area Plan efforts will incorporate the recommendations related to land use compatibility identified in these two study areas.

The Planning Process and Citizen Participation

The initial step in preparing the JLUS Implementation Plan involved a project meeting with the JLUS Project Team on May 30, 2012. The project team included key Central Midlands COG staff, Richland County staff, Fort Jackson staff, and the consultant team. At this meeting, important dates were discussed for the project schedule, stakeholders were identified and the basic study process was discussed in more detail. The project team developed a communication strategy and public involvement plan of action to encourage participation in the process from key stakeholders and the general public.

Since this project involved multiple groups and individuals in the planning process, the project team established a schedule of events,

which included meeting dates for stakeholder interviews, public meetings, technical review meetings, and final presentations. The schedule involved three days of focused stakeholder meetings in July followed by a technical review meeting, a meeting with the Policy Committee, and the first round of public meetings in August. A second technical review meeting and Policy Committee meeting was held in October with an additional presentation given before the Greater Columbia Chamber of Commerce's Military Affairs Committee. A second public meeting was held in November to review alternatives and potential regulations. In December, a brief presentation was made to the Richland County Planning Commission. In January, 2013, a meeting was held with County Planning Staff to review the draft materials prior to sending them out to the entire committee. Also, in January, the JLUS Technical Committee met to review the draft and a third public meeting was held to provide citizens the opportunity to review the draft plan and recommendations. The JLUS Policy Committee (the CMCOG Board of Directors) reviewed and adopted the plan at its February Board meeting and a final presentation was made before the Richland County Planning Commission in March of 2013.

Communication Strategy

It was important to develop a strategy for public outreach that was a meaningful part of the process. In that effort, the project team worked closely to establish meeting locations and to notify stakeholders and the general public of meeting dates and times. The project team also posted information on the CMCOG website for those seeking additional details. The actions carried out are listed on the following pages.



| Dates | Meeting | Location |
|-----------------|---|-----------------------------------|
| May 30, 2012 | Project Team Meeting | CMCOG Office |
| July 10, 11, 12 | Stakeholder Interviews | Various locations |
| July 26 | JLUS Technical Committee | CMCOG Office |
| August 23 | Public Meeting for Study Areas | Sheriff's Region 1 Office |
| October 11 | JLUS Technical Committee | CMCOG Office |
| October 25 | Policy Committee | CMCOG Office |
| October 30 | Chamber of Commerce – Military Affairs Com. | Chamber of Commerce Office |
| November 14 | Public Meeting for Study Areas | Sheriff's Region 1 Office |
| December 3 | County Planning Commission | |
| January 7, 2013 | Richland County Planning Staff | CMCOG Office |
| January 17 | JLUS Technical Committee | CMCOG Office |
| February 12 | Public Meeting for Study Areas | Sheriff's Dept. – Region 1 Office |
| February 28 | JLUS Policy Committee | CMCOG Office |
| March 4 | County Planning Commission | Richland County |
| April 31 | Final Deliverables Prepared | N/A |

Figure 1-4: Schedule of Events

July 10 - 12, 2012 – Stakeholder Interviews

For this first series of meetings, extensive coordination was required by the project team. The consultant team prepared a list of available interview time blocks and suggested locations. The project team communicated with the key stakeholders to schedule interviews (in groups when possible). Project team members conducted follow-up phone interviews as needed. Stakeholder interviews were held

with Fort Jackson, McEntire JNGB, and McCraday Training Center representatives, Richland County staff, Richland County elected officials, City of Columbia elected officials, City of Columbia staff, the Greater Columbia Chamber of Commerce, several larger property owners and developers, SCDOT, and others.

August 23, November 14, and February 12, 2013 - Public Meetings

After discussing the public meetings with the project team and conducting the stakeholder interviews, it was determined that both study areas should be addressed jointly at each public meeting. Based on those discussions, the background research, stakeholder interviews, and the initial assessment by the consultant team; a more defined study area boundary was identified by the project team. The Central Midlands

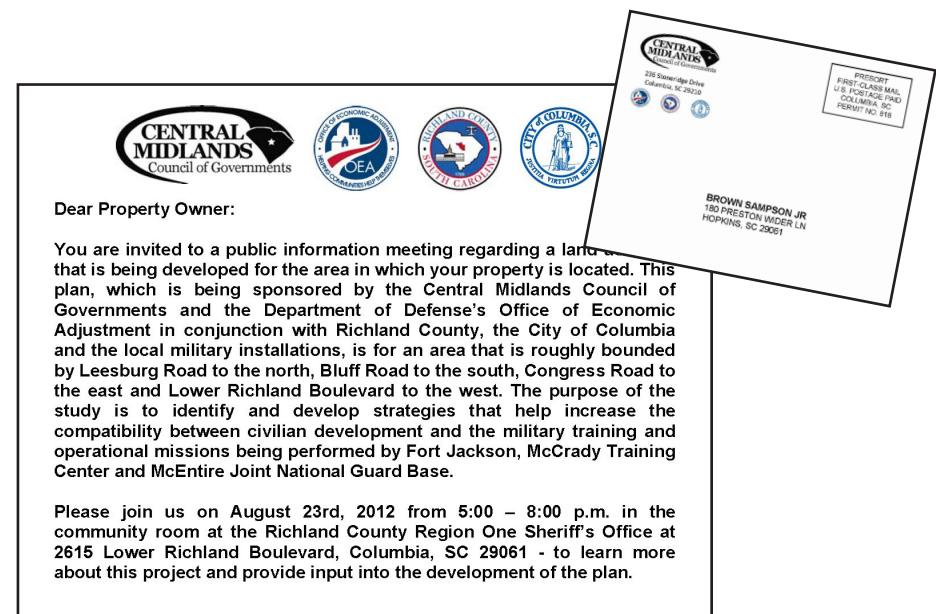


Figure 1-5: Example Post Card Mailing for Public Meeting Notification.



Council of Governments (CMCOG) staff coordinated with Richland County staff to produce mailings for all property owners within each of the defined study areas. The CMCOG staff ensured that the property owners in each area received a mailed notice of each public meeting, location and time. The consultant team assisted with the development of the post card the design.

The first public meeting was held on August 23, 2012, at the Richland County Sheriff's Department Region One Substation. At this meeting, the consultant presented background information, discussed issues related to the military training mission, and received initial input from the general public. Over 150 citizens attended this first meeting. Following the presentation that night at the first meeting, small group

discussions were held to discuss the overall process and for citizens to ask the project team questions about the purpose of the study and implementation. A survey was distributed at the meeting and also made available on the CMCOG website to provide additional opportunities for input into the process.

Due to the large number of citizens that expressed interest in the first meeting, the second public meeting on November 14, 2012, was scheduled for the Lower Richland High School Auditorium. Once again, the CMCOG staff coordinated with Richland County staff to send post cards to property owners within the study areas. Over 2,000 post cards were mailed for each meeting.



Figure 1-6: First Public Meeting held at the Sheriff's Region One Substation on August 23.

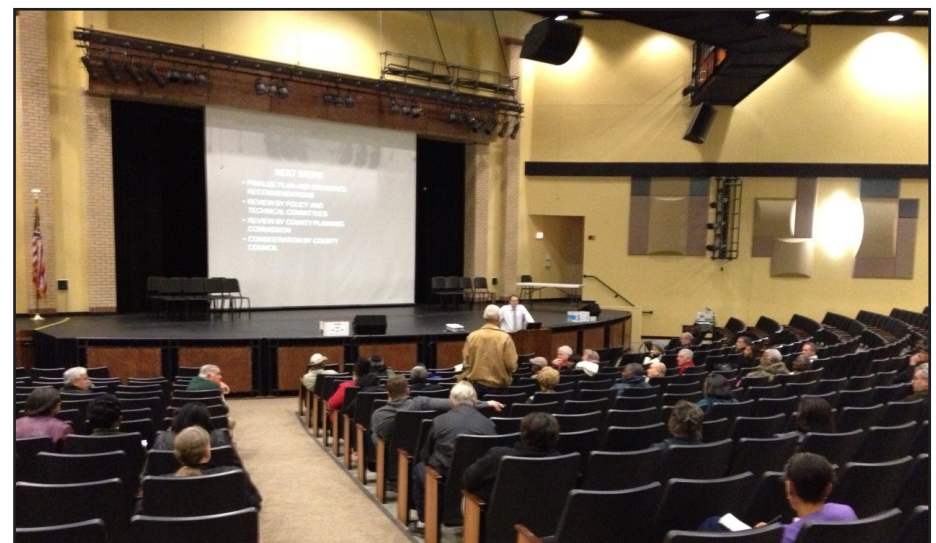


Figure 1-7: Citizen giving comments at the Second Public Meeting held at Lower Richland High School Auditorium on November 14.



At the second meeting, over sixty residents reviewed the alternative development scenarios for the study areas around Fort Jackson/McCrary Training Center and McEntire Joint National Guard Base. An opportunity was provided for meeting participants to ask questions concerning the scenarios and potential development regulations related to the implementation of land use compatibility requirements within the study areas. Residents expressed concerns about additional requirements; however, most understood the rationale for their implementation through their personal experience living around the installations and how they helped the ability of the military to train effectively. As with the first public meeting, small group discussions occurred after the meeting for citizens that had specific concerns or wanted additional information.

The final public input meeting was held on February 12, 2013, at the Richland County Sheriff's Department Region One Substation. This meeting utilized a "drop-in" format, and ran from the afternoon until the early evening. Approximately 25 residents came to the meeting during the afternoon to discuss specific issues related to potential compatibility requirements and how they could apply to their property. The format of this meeting allowed for a more thorough discussion of the issues with potentially affected property owners. Like the previous meetings, the County helped with advertising, again sending over 2,000 post cards to property owners in the study area.

JLUS Technical and Policy Committee Review Meetings

During the planning process, the project team met at three key points

with the JLUS Technical Committee as well as three separate meetings with the JLUS Policy Committee. The first meeting with each focused on reviewing the consultant's assessment, stakeholder interview results, and other background information prior to the first round of public meetings. In October, the project team met again with the committees to review alternative scenarios for each study area prior to the second round of public meetings. A final series of committee meetings were held to review the plan recommendations prior to preparation of the final draft of the plan.

Final Presentation Meetings

Once the JLUS Technical Committee reviewed and provided input on the final recommendations, a presentation was made to the JLUS Policy Committee (the CMCOG Board of Directors) for their final endorsement of the JLUS Implementation Plan. A presentation of the final plan was made to the Richland County Planning Commission for their consideration of the next steps for moving Richland County forward with the implementation plan and proposed overlay districts.



SECTION TWO REVIEW OF LAND USE COMPATIBILITY ISSUES



In order to understand the land use compatibility issues within the two study areas, the project team conducted an existing conditions inventory. The team reviewed the following information:

- Existing literature, ordinances, government policies, building codes and property/tax information;
- Key land use and environmental GIS data;
- Information from public and private stakeholder interviews;
- Information from input received at public meetings; and
- Information related to the construction of the Lower Richland Wastewater Collection and Treatment System and the Leesburg Road Capacity Improvement Project.

This data helped develop a comprehensive picture of potential compatibility and encroachment issues related to the proposed Lower Richland regional wastewater collection and treatment system and the

Leesburg Road Capacity Improvement Project. Specifically, compatibility issues were evaluated within the context of the military's need to protect its training mission, the need to protect the civilian population from any potential military training impacts and the need to protect the significant natural resources in the study areas.

As part of the background research phase, the Project Team conducted interviews with public and private stakeholders as identified by CMCOG. The stakeholder meetings helped to identify critical compatibility and development issues within the study area. The stakeholder's interviews helped the Project Team determine if additional data should be collected

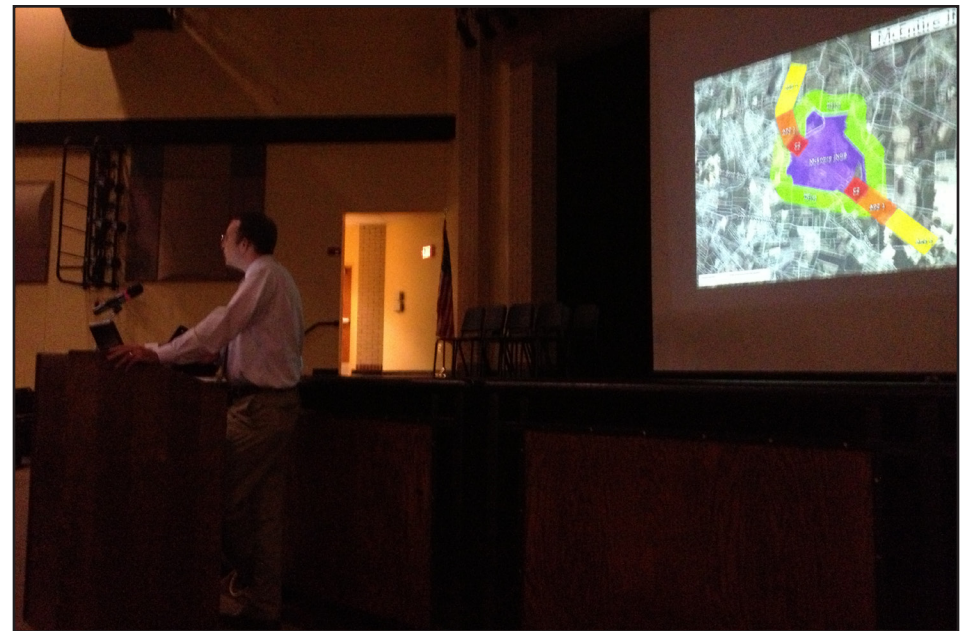


Figure 2-1: Consulting Team Member, Vagn Hansen, presenting information on land use compatibility issues surrounding McEntire JNGB.



as part of the compatibility assessment. The team presented this background data and information to the JLUS Technical and Policy Committees as the process moved forward.

Existing Conditions

Fort Jackson / McCrary Training Center/ Leesburg Road Study Area

The study area south of Fort Jackson / McCrary Training Center along the Leesburg Road corridor contains a mixture of suburban and rural residential development, along with a number of larger undeveloped tracts of land. The western end of the corridor is more densely developed, with both the density and intensity of development generally diminishing farther to the east and south along the corridor. In this more developed portion of the study area, the residential subdivision off of Greenlake Drive is the highest density residential neighborhood in the larger study area, with over 250 residential lots subdivided into parcels of between 6,000 sf and 12,000 sf. (approximately 1/8 to 1/4 acre lots).

Continuing east along the Leesburg Road corridor, the density of development diminishes, with the majority of suburban density development in the area (smaller than 1 acre residential lots) occurring west of Mt. Elon Church Road. The eastern end of the corridor and the southern portion of the study area are generally less intensely developed and less densely subdivided than the western and northern portions of the study area, with typical residential lots of 1 to 5 acres in size, and a large amount of acreage in larger undivided tracts.

Along Leesburg Road, and throughout the study area, there are a large number of manufactured homes (mobile homes). While many of these manufactured homes are on individual lots, there are also a significant number of manufactured homes within manufactured home parks, particularly west of Mt. Elon Church Road in close proximity to the Leesburg Road corridor. Larger manufactured home developments in the study area include parks on Emory Road (approximately 20 units), Kepper Drive (approximately 20 units) and Harmon Garcia Road (approximately 25 units).

Nonresidential land use (commercial, institutional, industrial etc.) in the study area is sparse, and where it does exist, tends to be located along or in close proximity to the Leesburg Road Corridor. Churches and rural/community businesses are the primary nonresidential land uses in the area, with no large scale businesses or manufacturing operations currently present along the corridor. Parcels containing nonresidential land uses tend to be in close proximity to the primary corridor (Leesburg Road) and tend to be located in the areas of greater residential density in the western portion on the study area.

The overwhelming majority of the land within this study area is zoned RU (Rural District) through the Richland County Land Development Code. Of note, the more densely developed residential area along Greenlake Drive is zoned RS-HD (Residential, Single Family, High Density District). Additionally, there are several small pockets of nonresidential zoning in the study area, primarily along, or in close proximity to, the Leesburg Road Corridor.



McEntire JNGB Study Area

The McEntire JNGB Study Area is primarily rural in nature, with a mixture of rural residential and agricultural uses typifying the existing land use pattern. The areas located west and northwest of the base are generally more densely developed than areas immediately north, east and south of the base, though in this case “density” is referring primarily to the number, rather than size of residential lots, which typically exceed 1 acre in size. The area located immediately west of the base (between Air Base Road and Garners Ferry Road) contains the greatest concentration of development, with approximately 350 residential lots divided into parcels of 5 acres or smaller (200 of those are smaller than 2 acres).

The second most intense area of residential development is located to the northwest of the base, between Garners Ferry Road and Blue Johnson Road. This area contains almost 200 residential lots that are smaller than 5 acres in size, with over 125 of those being smaller than 2 acres in size. Another more densely developed portion of the study area is located approximately one mile due south of the perimeter of the base along Cabin Creek Road, near its intersection with Watson Drive. The residential subdivision at this location contains approximately 70 lots that are smaller than 2 acres, with more than 1/3 of those having a lot size of approximately 1 acre. Just west of this subdivision on Cabin Creek Road (in the area around Martin Luther King Jr. Boulevard) is a large rural residential community that contains approximately 275 residential lots that are smaller than 5 acres. Of those, approximately 115 are 1 acre or smaller. While these two areas are close to McEntire,

there is very little development between them and McEntire, with the intervening lands being used either for agricultural purposes or remaining vacant at the present time.

The number and density of manufactured homes in the McEntire JNGB study area is significantly lower than the Leesburg Road study area. The only significant concentration of manufactured housing in the area is a manufactured home park north of the base on Garners Ferry Road across from Fox Run Drive, which contains approximately 50 manufactured home spaces, as well as approximately 15 spaces for travel trailers.

Nonresidential land uses within the study area are primarily located along the Garners Ferry Road corridor, with a mixture of commercial and industrial uses along the 4-lane highway leading to McEntire’s main gate. Commercial uses in the area are typically smaller community retail and service establishments located near intersections, with no true concentration of business in the area. A number of institutional uses are located in the study area, including an elementary school and middle school along Horrell Hill Road near Garners Ferry Road, and several churches scattered through the study area. Of particular note, there is a heavy manufacturing use located immediately adjacent to the southern perimeter of the base, adjacent to the railroad, and two large equestrian facilities located north of the base along Garners Ferry Road.

All land within the McEntire JNGB study area is subject to the Richland County Land Development Code. The overwhelming majority of the



privately held land in the area is zoned RU (Rural District), while McEntire JNGB is zoned HI (Heavy Industrial) along with the manufacturing concern located along its southern perimeter. Along Garners Ferry Road there are scattered pockets of M-1 (Light Industrial), GC (General Commercial) and PDD (Planned Development District) zoning, and areas of M-1 zoning at the intersection of Old Congaree Run and Reese Road and HI zoning on Air Base Road, just west of the base.

Operational Impacts and Hazards

The civilian community within the study areas is subject to a wide range of impacts and potential hazards from the training and operational missions of the installations. The primary impact identified in the Joint Land Use Study is noise – from artillery, armor, small arms and demolition training at Fort Jackson / McCrary Training Center and from aircraft operations at McEntire JNGB. The primary operational hazards are aircraft accident potential and helicopter flight obstruction hazards in the area around McEntire JNGB. The current extent of these impacts, as identified in the 2009 Joint Land Use Study, are shown in the figures on the following pages and discussed below.

Fort Jackson / McCrary Training Center Noise Impacts

As stated above, Fort Jackson and McCrary Training Center create off-post noise impacts from a wide range of training activities. While the most frequent impact to the community is noise from small arms training (primarily rifle and machinegun fire), these noise impacts are generally well contained on the post, with relatively low decibel levels impacting the surrounding community. The greatest potential impact

to the community comes from artillery training by units equipped with M-109 155mm Self Propelled Howitzers and Multiple Launch Rocket Systems (MLRS), as well as engineer units conducting demolitions training with 40lb cratering charges and similar explosives.

These activities create off-post noise impacts that can extend up to two miles or more off post in the study area at a 115dB noise level. Figure 2-2 shows the extent of the potential 115dB noise contour from artillery and demolitions training in the study area, while Figures 2-3 through 2-5 show a closer look at the areas that may be subject to this type of noise impact within the study area. The noise contours, which are identified in the JLUS, are based on the potential peak noise event as determined in the Installation Environmental Noise Management Plans. The noise contours are not a strict boundary of high impact noise, but rather represent the potential for high impact noise at any given location off-post with an 85 percent degree of certainty (expressed as PK15). Since they are not strict boundaries, there is a potential for higher noise levels to occur outside of the defined contours based on meteorological conditions and the frequency and tempo of training activities. While these high impact noise events are less frequent than the noise impacts from more frequently occurring training activities (such as small arms training), they do have the potential to adversely affect the quality of life in those parts of the community that are subject to these high noise levels.

McEntire JNGB Noise Impacts

The 2009 Joint Land Use Study and 2008 Air Installation Compatible



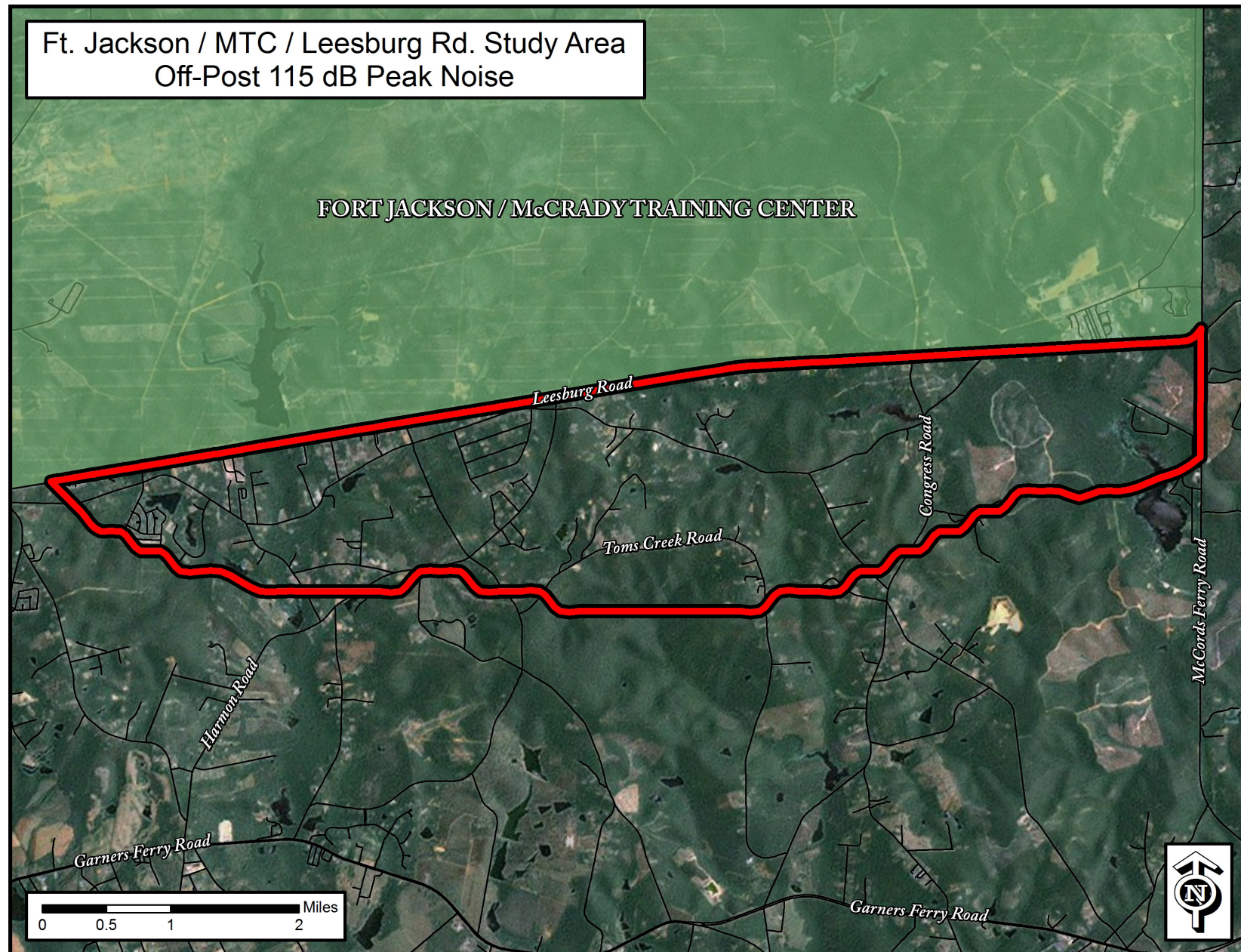


Figure 2-2: Fort Jackson / MTC/ Leesburg Road Study Area - Off-Post 115dB Peak Noise



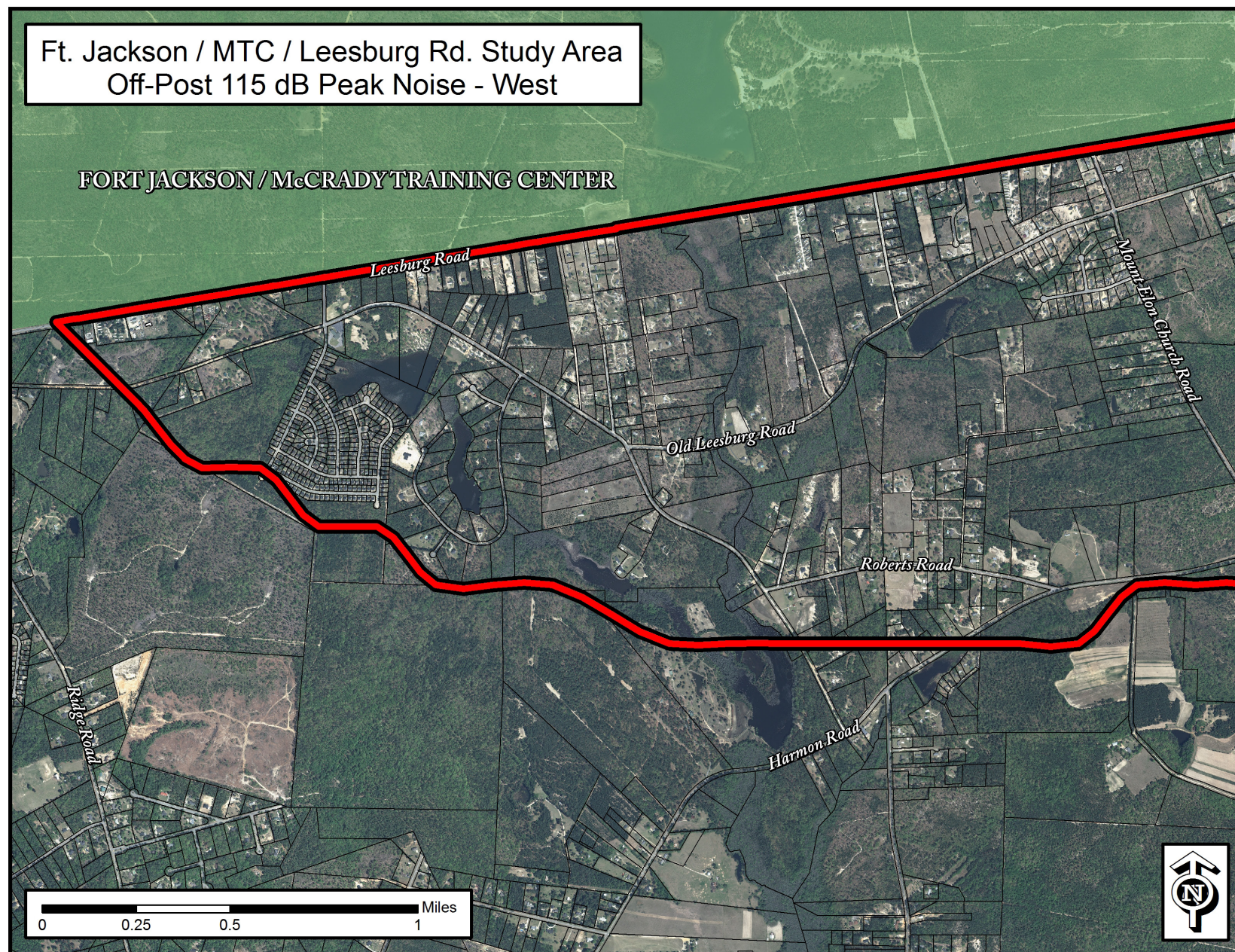


Figure 2-3: Fort Jackson / MTC/ Leesburg Road Study Area - Off-Post 115dB Peak Noise - West



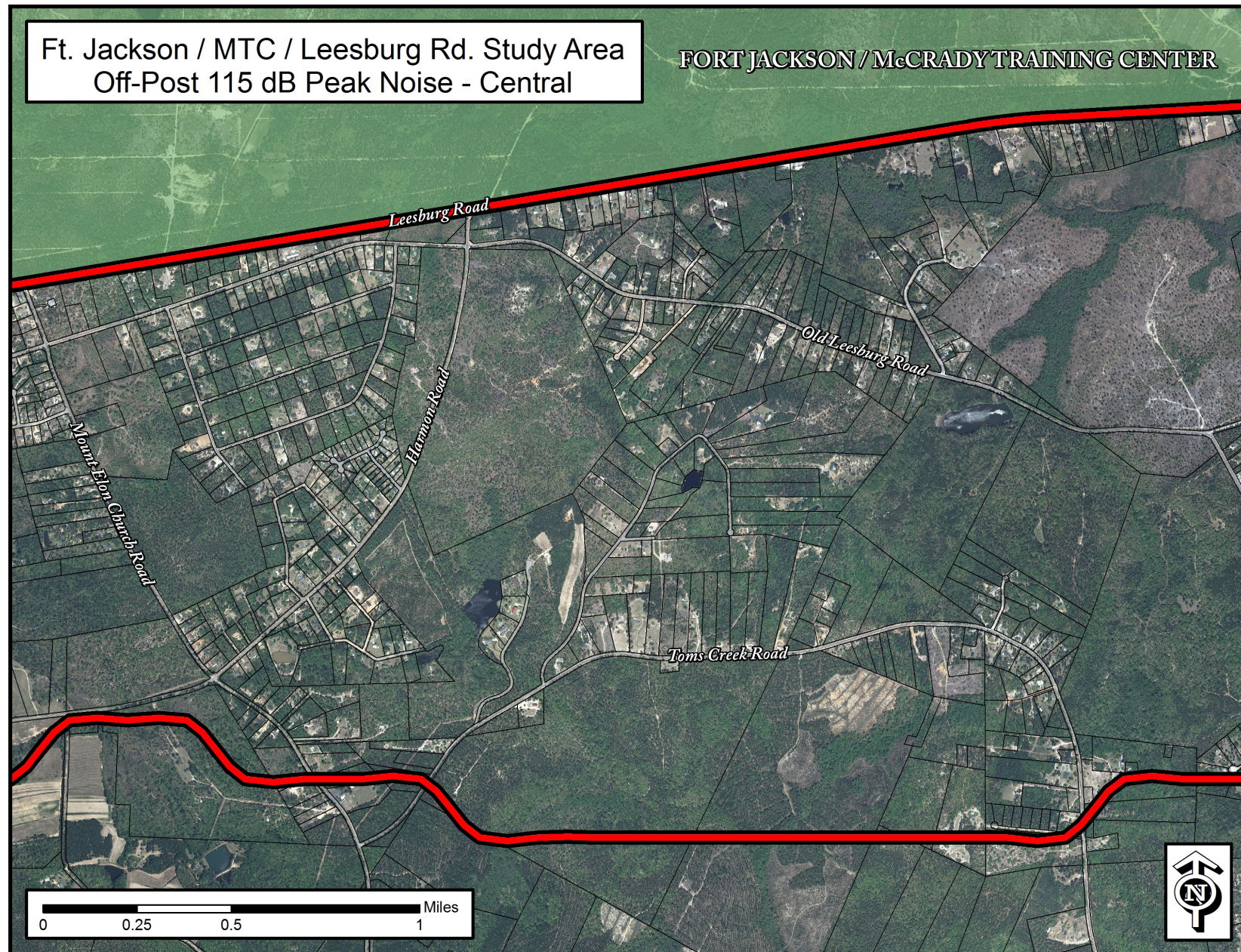


Figure 2-4: Fort Jackson / MTC/ Leesburg Road Study Area - Off-Post 115dB Peak Noise - Central



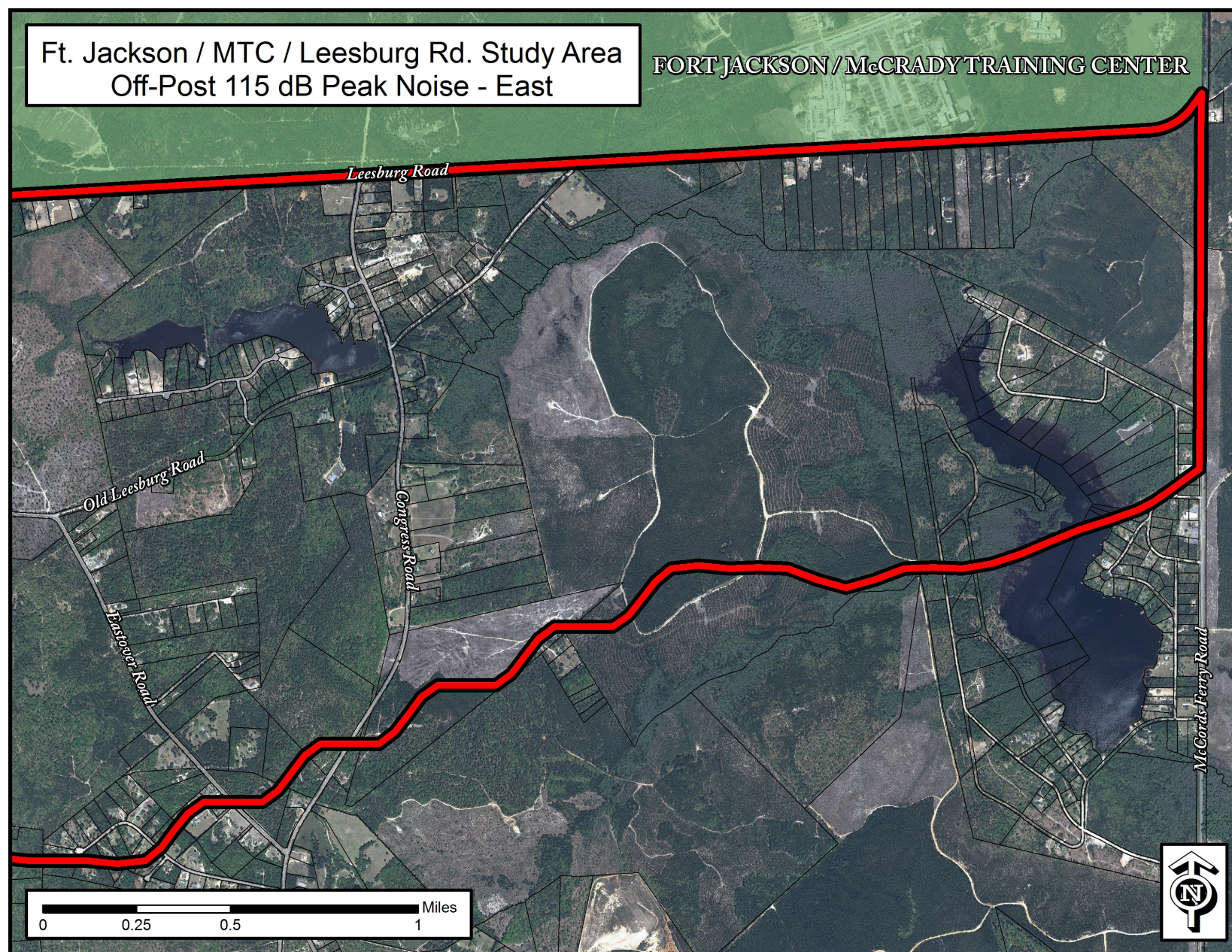


Figure 2-5: Fort Jackson / MTC/ Leesburg Road Study Area - Off-Post 115dB Peak Noise



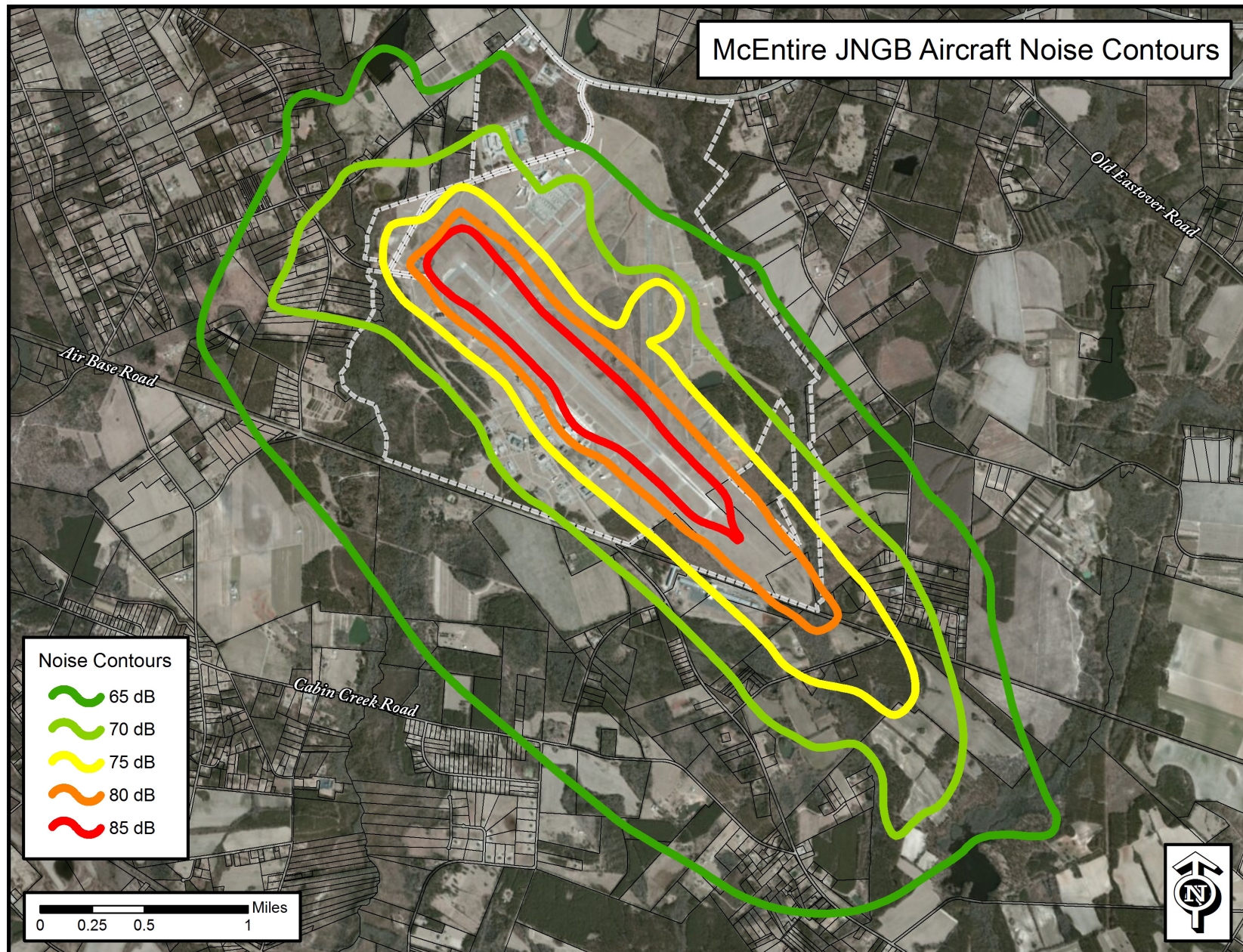


Figure 2-6: McEntire JNGB Aircraft Noise Contours



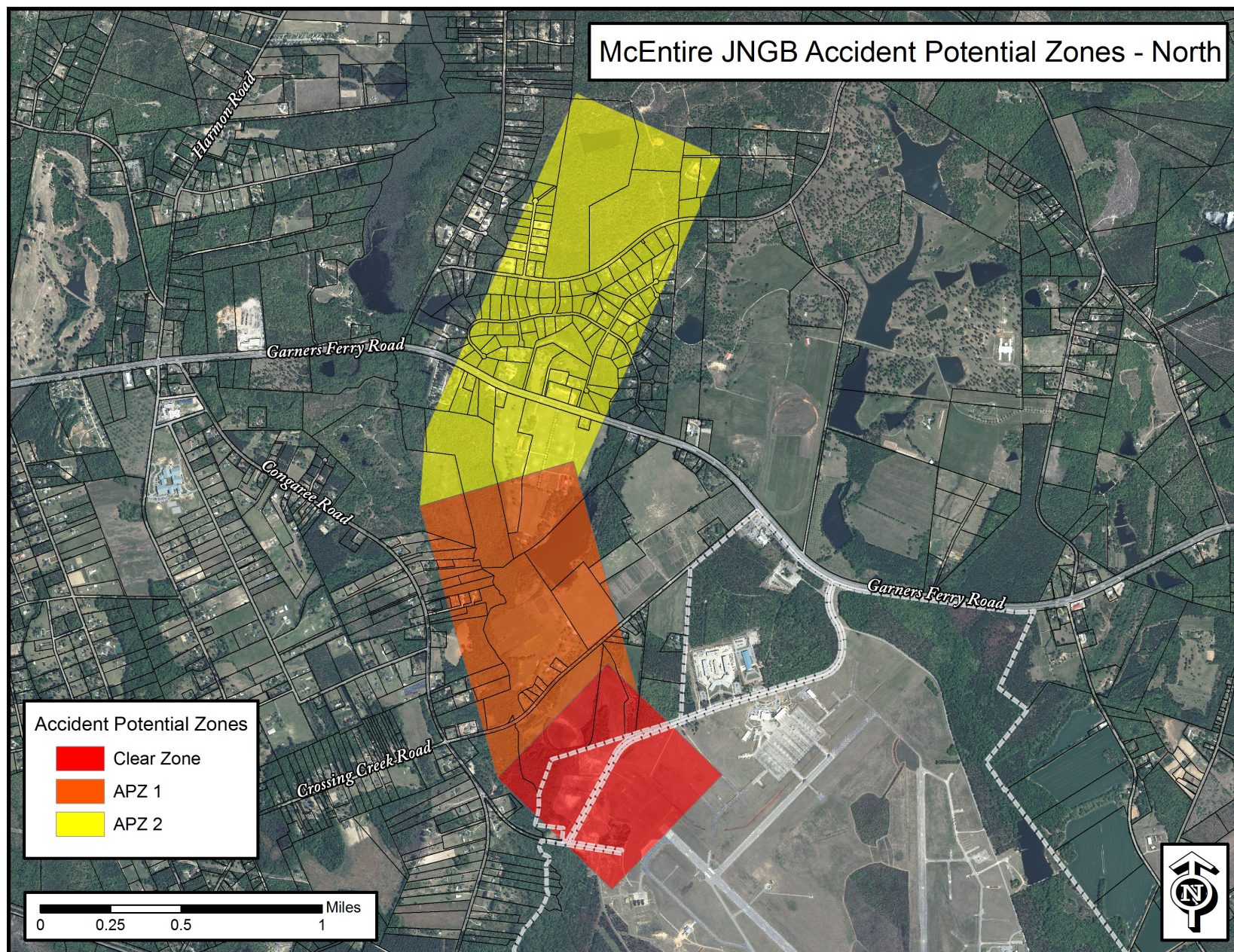


Figure 2-7: McEntire JNGB Accident Potential Zones - North



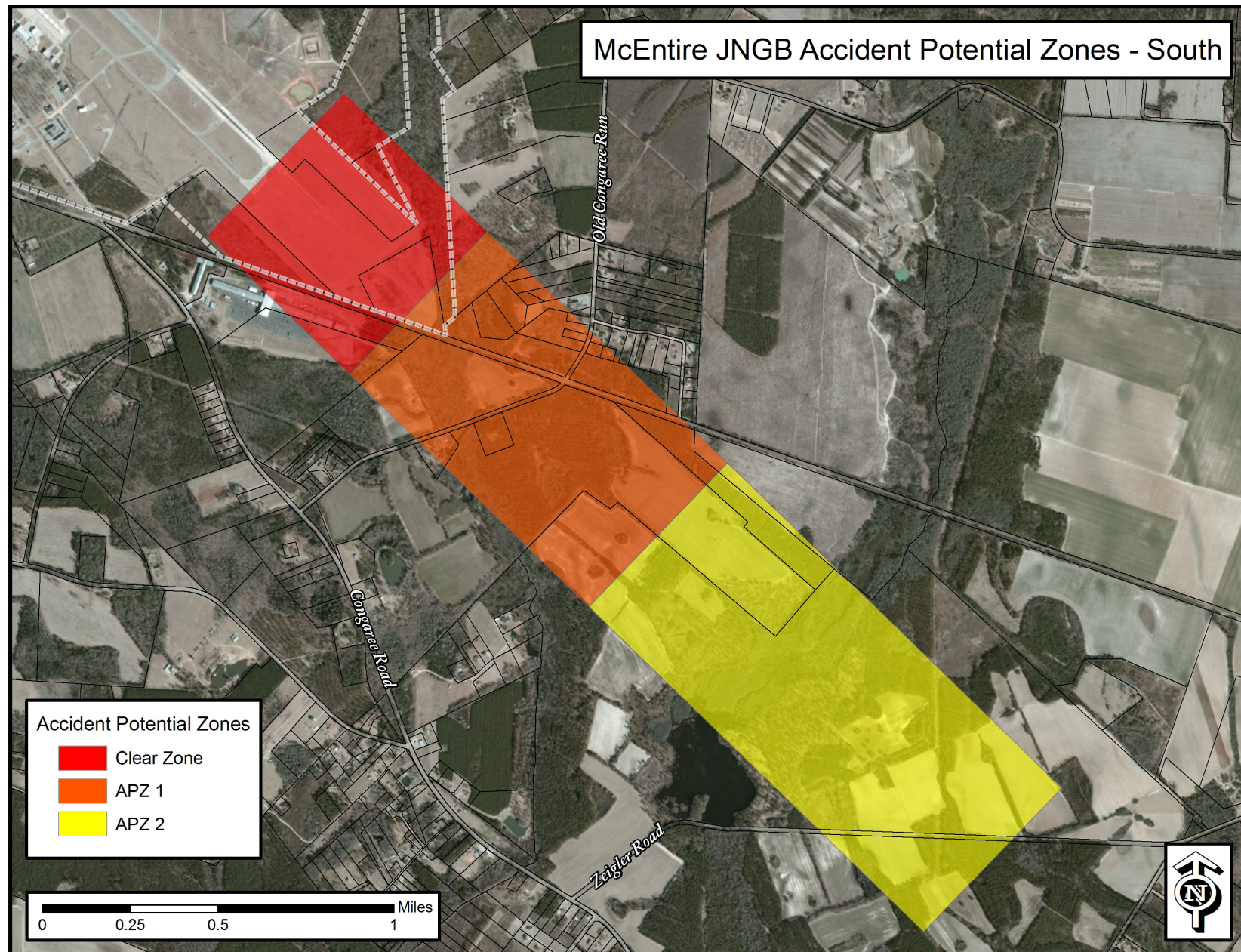


Figure 2-8: McEntire JNGB Accident Potential Zones - South



Use Zone Study both identify noise from aircraft operations at McEntire Joint National Guard Base as having a potential negative impact on the quality of life for the community surrounding the base. McEntire JNGB hosts the 169th Fighter Wing of the SC Air National Guard, which is currently equipped with F-16C/D aircraft. The JLUS and AICUZ both identify high noise contours which accompany the operation of the current fleet of aircraft of the 169th Fighter Wing. These noise contours, shown in Figure 2-6, are based upon average “busy day” operations at the base. The peak noise occurring from any single instance of an aircraft operation may occur at both a higher level within a predefined noise contour and the actual peak noise may extend to a greater distance than is shown on the map based on meteorological conditions and the characteristics of the particular flight operation (aircraft type, load, takeoff power level etc.).

The Air Force has identified day-night weighted average noise levels (expressed as DNL) at a level of 65dB DNL or greater as having a potential to adversely impact certain types of land uses in off-base communities, with higher levels of average noise having a potential for a greater negative impact. In contrast to the peak noise events associated with artillery and other training events at Fort Jackson / MTC, noise from aircraft operations at McEntire JNGB occurs with greater frequency and has a longer potential peak duration for each noise event due to the regular tempo of operations at the base. As such, the noise created by aircraft operations at McEntire JNGB may be more likely to adversely impact the surrounding community where development exists that is incompatible with frequent high noise events.

McEntire JNGB Aircraft Accident Potential

Flight operations at McEntire JNGB come with the potential for aircraft accidents to occur off-base. While the precise location of an aircraft accident that impacts an off-base location cannot be predicted with 100 percent certainty, there are areas which have been generally defined as having greater potential for experiencing an aircraft accident (see Figures 2-7 and 2-8 on the previous pages). These areas are generally associated with the takeoff and landing patterns for aircraft approaching the primary runway (14/32) at McEntire JNGB. The JLUS and AICUZ both detail these areas, which are identified as the Clear Zone, Accident Potential Zone 1 and Accident Potential Zone 2. The Clear Zone (CZ) is defined as an area measuring 3,000 feet wide by 3,000 feet long extending from each end of the runway. Accident Potential Zone 1 (APZ 1) is defined as an area measuring 3,000 feet wide by 5,000 feet long extending from the end of each CZ. Accident Potential Zone 2 (APZ 2) is defined as an area extending 3,000 feet wide by 7,000 feet long extending from the end of each APZ 1. Figure 2-7 shows the defined Accident Potential Zones, as identified in the JLUS and AICUZ at the north end of Runway 14/32 and Figure 2-8 shows the Accident Potential Zones at the south end of Runway 14/32. While a typical set of Accident Potential Zones will extend straight from the end of a runway (as the APZ map for the south end of Runway 14/32 shows), the north end of Runway 14/32 has accident potential zones the curve northward. This altered APZ is due to flight patterns that have been established to avoid airspace over Fort Jackson / MTC that could interfere with training activities on the post.



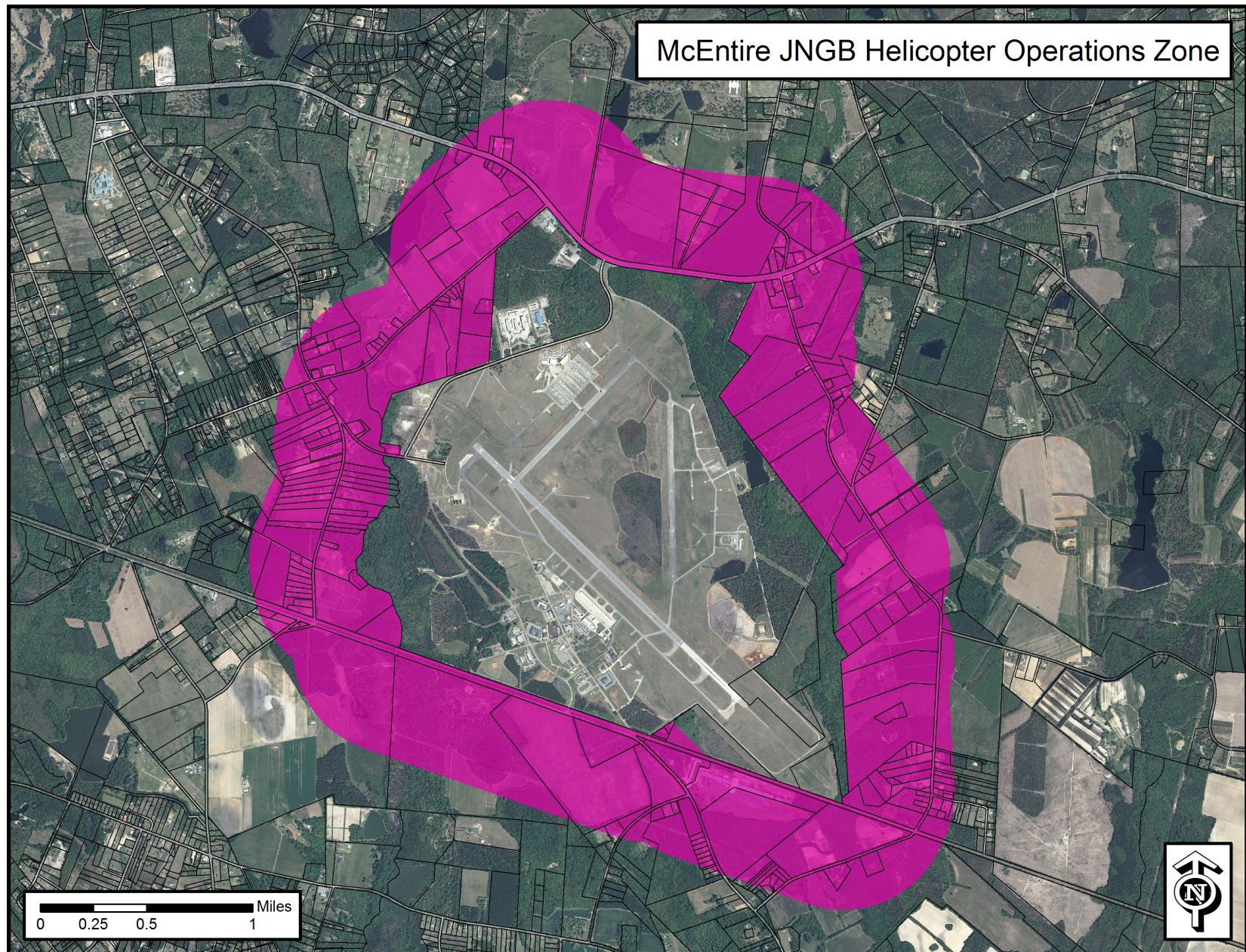


Figure 2-9: McEntire JNGB Helicopter Operations Zone



McEntire JNGB Helicopter Flight Obstruction

The final major potential military impact to the community is the potential for accidents related to flight obstructions that may interfere with helicopter operations originating at McEntire JNGB. The South Carolina Army National Guard's aviation assets are based at McEntire. Aircraft currently operated from McEntire JNGB include AH-64, UH-60, CH-47, OH-58 and UH-72 helicopters. While the JLUS has identified a number of broad areas as helicopter flight operation areas around McEntire JNGB and between McEntire JNGB and Fort Jackson/McCrary Training Center, the consulting team, through interviews with members of the aviation community in the SC Army National Guard, identified a ½ mile zone surrounding the perimeter of McEntire JNGB as the most critical area for potential helicopter flight obstructions. This flight obstruction impact "zone" is based on the low level flight that is associated with takeoffs and landing at McEntire in close proximity to the helicopter field on base. Figure 2-9, on the previous page, shows the ½ mile zone surrounding McEntire that is associated with potential helicopter flight obstruction impacts.



SECTION THREE RECOMMENDATIONS



Land Use Compatibility Recommendations

Military Activity Zones

As presented in the attached Military Activity Overlay Zone (MAZ) Ordinance (see Appendix One), it is recommended that Richland County adopt overlay zoning districts to address and mitigate potential future land use compatibility issues that may arise as new infrastructure and general growth pressures bring development to the affected portions of Lower Richland County. These proposed regulations are intended to provide Richland County, as well as other affected jurisdictions in the region, with a set of land use tools to implement the primary land use compatibility recommendations of the 2009 JLUS. The regulations in this “toolbox” are modular, meaning that they can be adopted and implemented independently of one another, and scalable, meaning that they can be expanded or contracted, both in degree of regulation and geographic coverage, depending on the needs of the community and changes in military training and operations. While the MAZs, as recommended, will help achieve the best land use compatibility outcomes, it will be up to the

County Council to make the final determination on which regulations to implement and the precise degree of regulation that will accompany any MAZ designation.

The proposed MAZs are divided into four broad categories, each addressing a particular set of land use compatibility issues. The first category, encompassing MAZ 1, MAZ 2 and MAZ 3, are designed to address compatibility issues in the aircraft Accident Potential Zones (CZ, APZ1 and APZ 2) at either end of the primary runway at McEntire JNGB (Figure 3-2). The second category of overlays, MAZ 4, MAZ 5, MAZ 6 and MAZ 7, are designed to address land use compatibility with areas subject to high levels of aircraft noise around McEntire JNGB (Figure 3-2). The



Figure 3-1: Photo of the overflow attendance from the first community meeting held at Sheriff's Department Region One Substation.



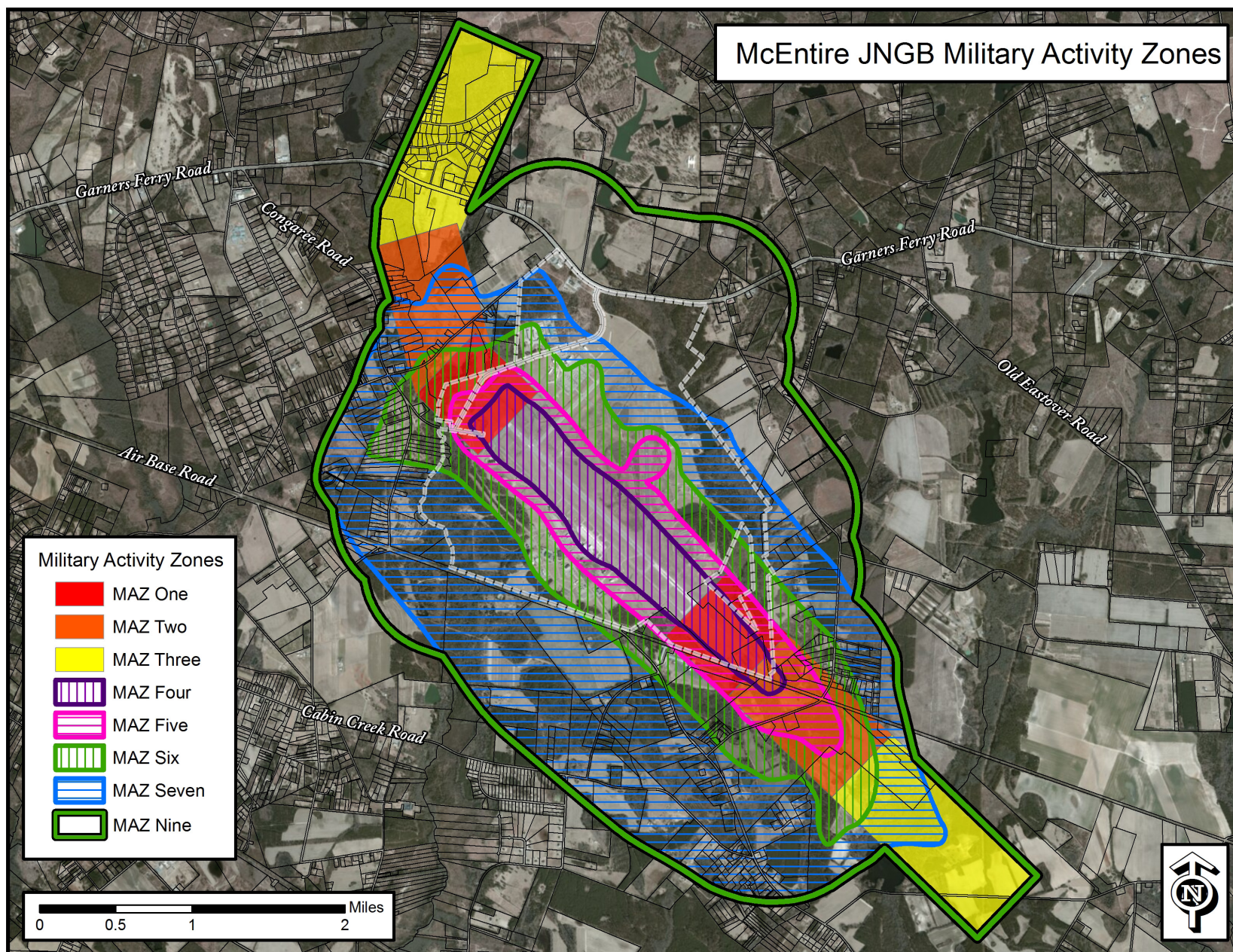


Figure 3-2: McEntire JNGB Military Activity Zones



third category, designated as MAZ 8, is designed to address land use compatibility issues in areas subject to high noise potential from artillery and demolitions training at Fort Jackson and McCrary Training Center (Figure 3-3). The final category, designated as MAZ 9, is not a regulatory zone like the others, but rather is intended to serve as the statutorily required notification zone for certain land use and development proposals per the South Carolina Federal Defense Facilities Utilization Integrity Protection Act. As such, MAZ 9 is designed to encompass the area subject to any other MAZ, or, where none is designated, extend 3,000 feet from the military installation boundaries into the affected local governments' jurisdiction (Figures 3-4, 3-5, 3-6 and 3-7).

While the study areas, as defined in the introduction of the plan, are the areas of primary concern, it should be noted that MAZ 9, as proposed, would extend around Fort Jackson (Figure 3-5) into locations that are not within the study areas, but which were included in the Joint Land Use Study. The map in Figure 3-5 shows the area encompassing MAZ 9 as a continuous outline around Fort Jackson, irrespective of jurisdiction, to demonstrate the full potential extent of the zone if it were to be adopted by each jurisdiction. MAZ 9 areas included within the study areas are defined by blue hatched lines to distinguish them from areas outside of the bounds of this plan. It is recommended that MAZ 9 be adopted throughout the entirety of the area subject to County zoning jurisdiction so that the MAZ, as proposed, can fulfill its statutory purpose of serving as the Federal Defense Facilities Utilization Integrity Protection Act notification boundary. Adopting MAZ 9 throughout the County's zoning jurisdiction would also provide the County with a

vehicle through which it could implement other broad based land use compatibility regulations that it identifies, but which are not directly tied to the specific purposes of the other MAZs (such as real estate disclosures, aviation easements, etc.). As noted previously, other local governments would be able to utilize this tool within their jurisdiction, if desired, which could enhance the ability of the respective jurisdictions to coordinate land use compatibility reviews between each other and with the military.

A similar situation exists with MAZ 8, which is designed to mitigate land use compatibility issues arising from high noise impacts around Fort Jackson / McCrary Training Center (see Figure 3-8). Like MAZ 9, this zone has potential applicability in an area greater than is covered by the defined study areas. Figure 3-8 demonstrates the extent of the potential 115 dB peak noise impacts throughout the region, with the area covered by MAZ 8 lying within the study area boundary shaded orange and the areas outside of the study area shown with hatched lines. While the high noise areas within the Leesburg Road Corridor have been identified as the most critical to address at the present time, it is recommended that the County consider extending MAZ 8 to the full extent of the potential noise impacts as shown in Figure 3-8. Also, like MAZ 9, these areas fall within the jurisdiction of other local governments, including a large area of high noise potential within Kershaw County.

As stated previously, it is recommended that Richland County adopt the full set of Military Activity Zones as presented in the plan. If the



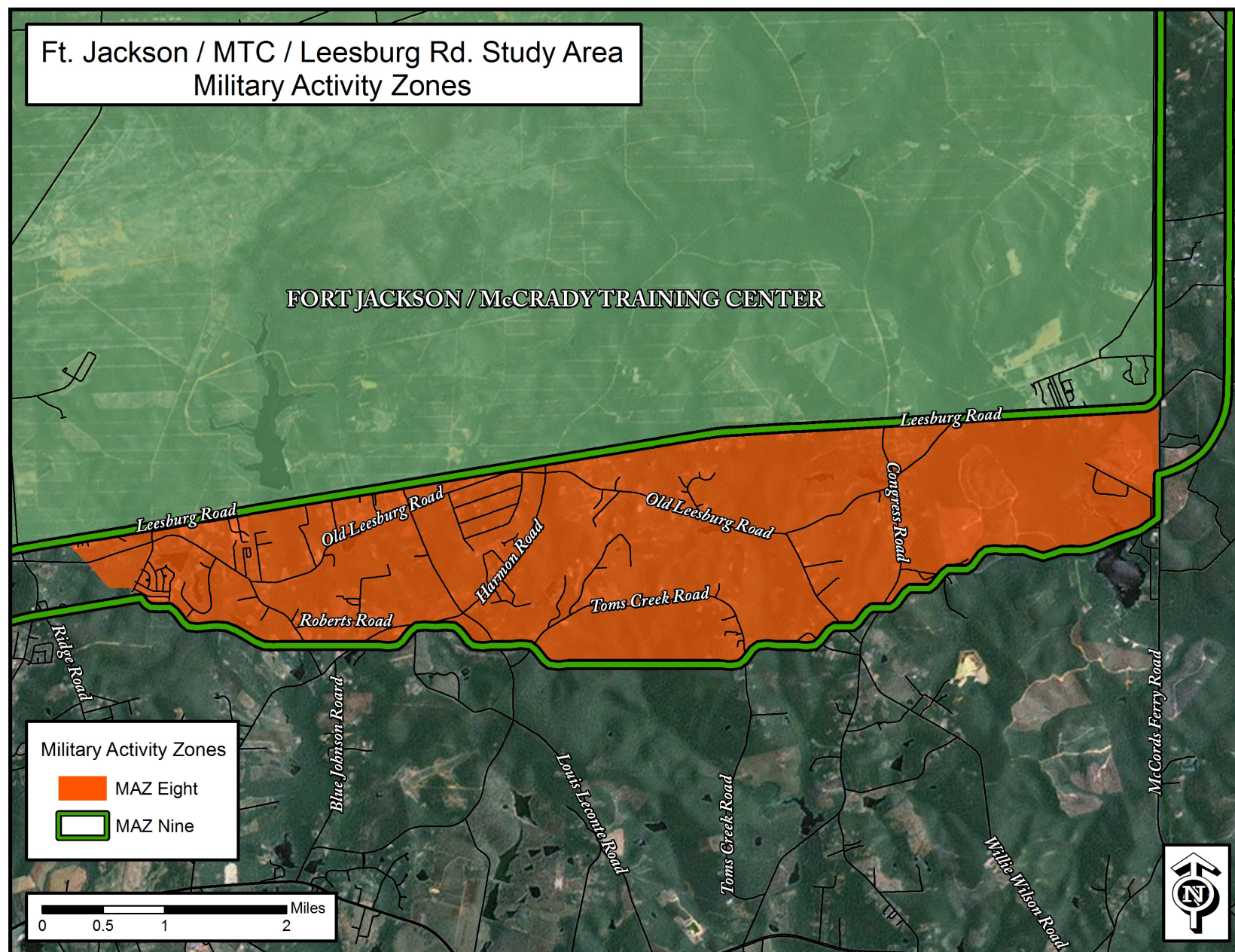


Figure 3-3: Fort Jackson / MTC/ Leesburg Road Study Area - Military Activity Zones



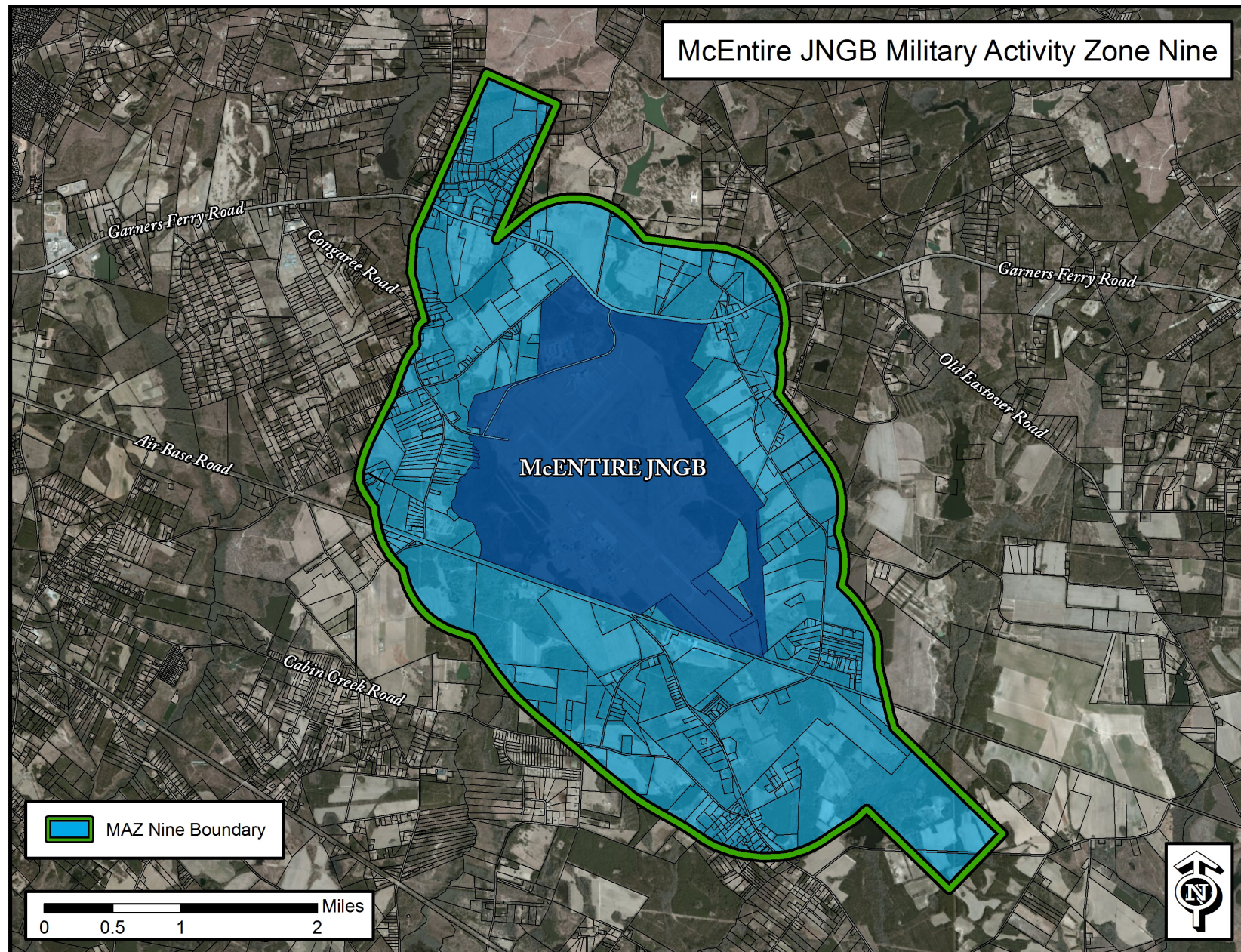


Figure 3-4: McEntire JNGB Military Activity Zone Nine



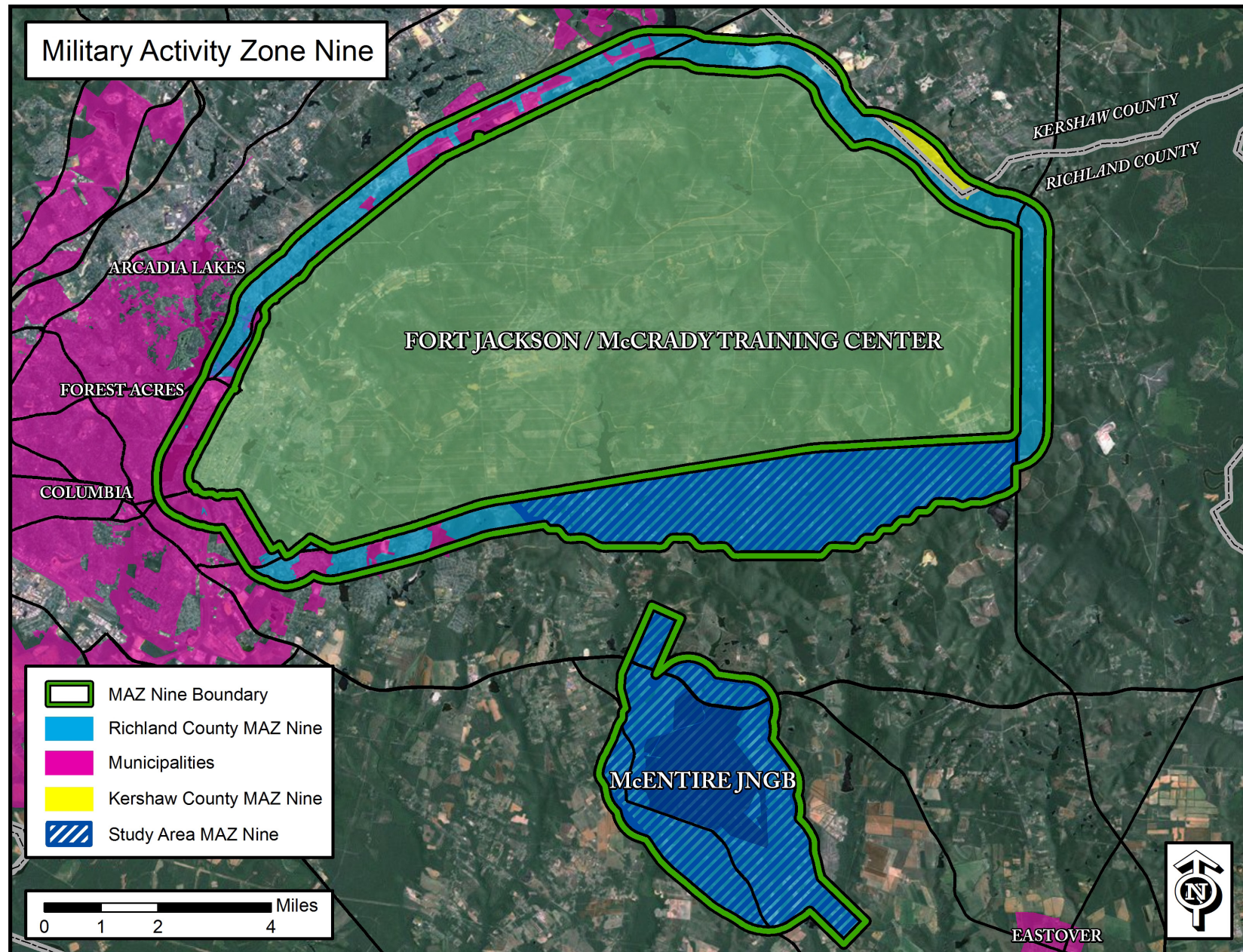


Figure 3-5: Military Activity Zone Nine



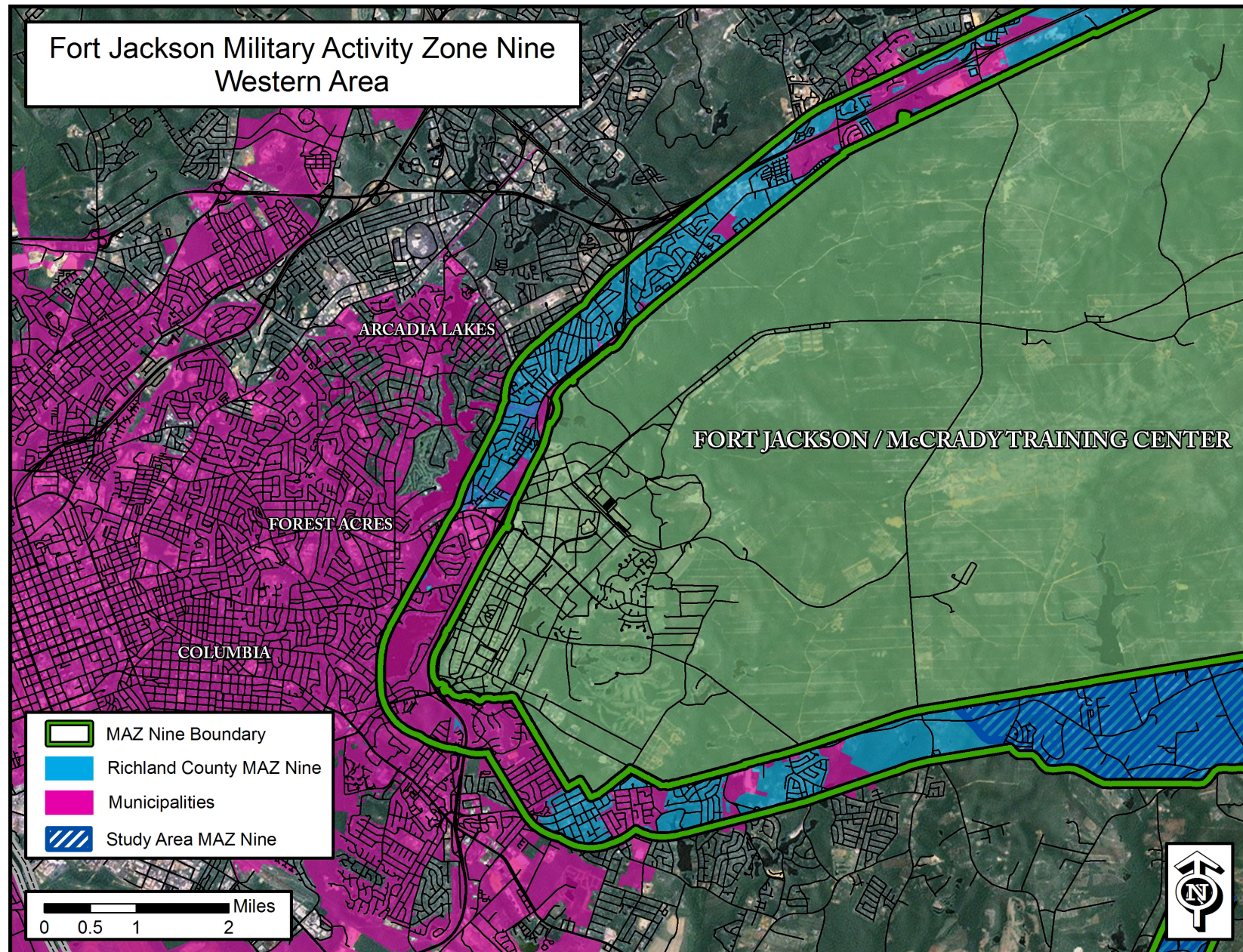


Figure 3-6: Fort Jackson Military Activity Zone Nine - Western Area



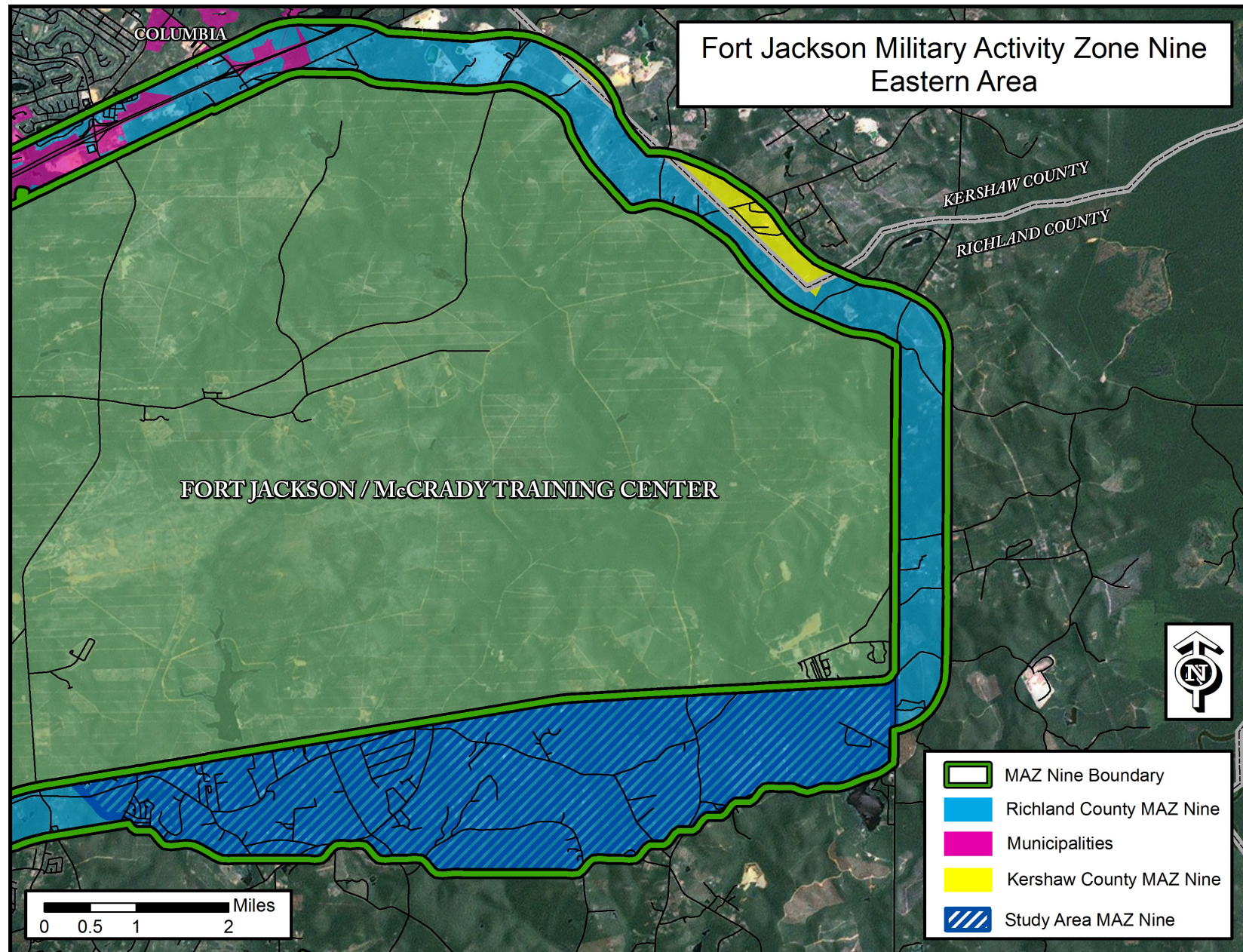


Figure 3-7: Fort Jackson Military Activity Zone Nine - Eastern Area



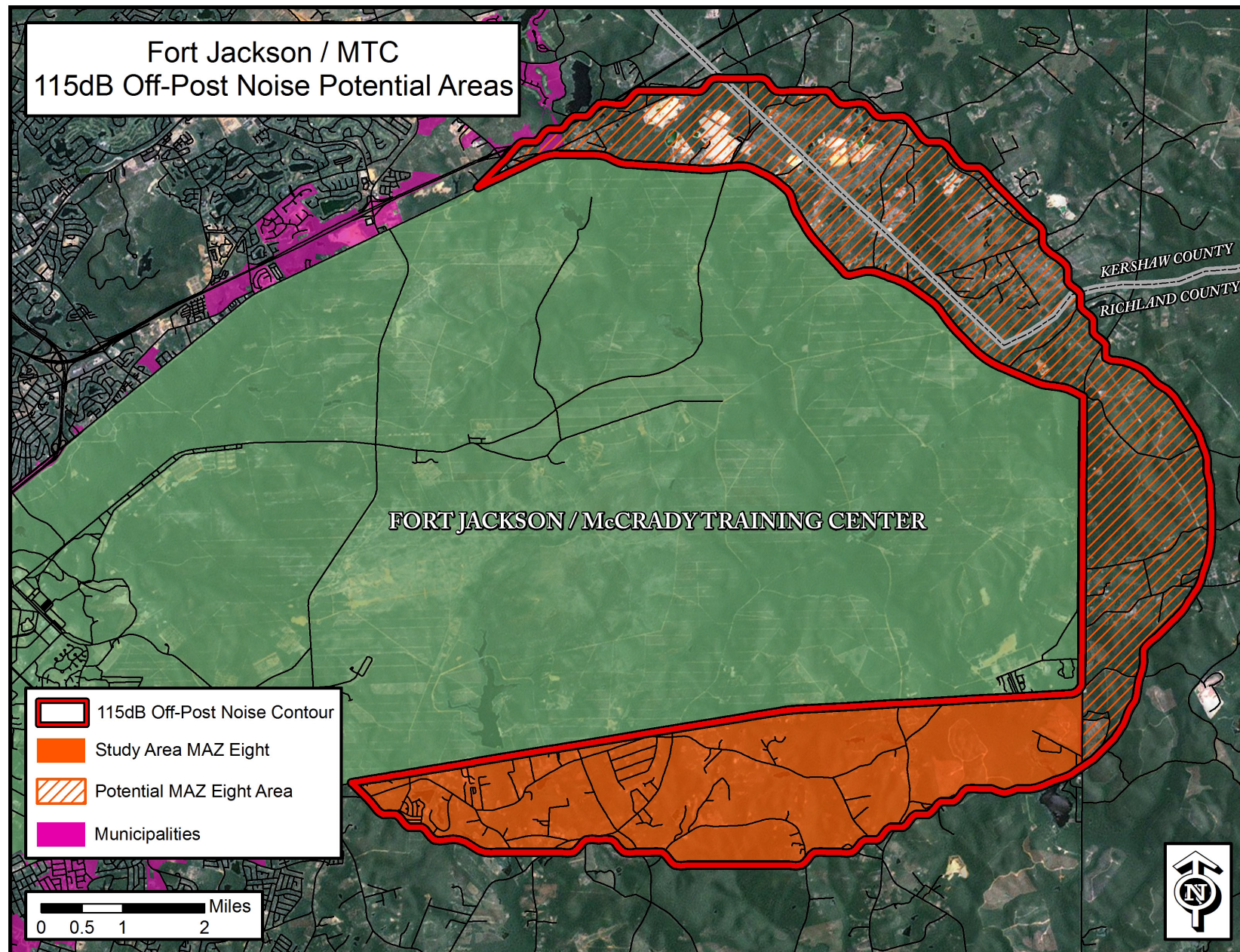


Figure 3-8 Fort Jackson / McCrary Training Center 115 dB Off-Post Noise Potential Areas



County chooses to consider adopting only some of the proposed MAZs, it is recommended that MAZ 1, MAZ 2, MAZ 3 be adopted as presented since they directly address potential life-safety issues with regard to aircraft accident potential around McEntire JNGB.

Rural Zoning District Density

Based upon a review of County's Comprehensive Plan and Land Development Code, the study has determined that the current standards associated with the Rural (RU) zoning district, which is the primary zoning district applied throughout both areas covered by the plan, is not fully compatible with the need to limit the potential density of residential development in these critical areas. Specifically, the current minimum lot size of 33,000 square feet, does not fully achieve the type of low density development pattern that is most compatible with adjacent military installations or with the desired rural character for these areas, as expressed in the Comprehensive Plan.

In order to enhance the compatibility of future development with both the military training mission and with the desired future land use pattern, it is recommended that minimum lot sizes in the RU district be increased to 1 acre, or larger if feasible. While this recommendation is broadly applicable throughout the County's jurisdiction that has been designated for rural land use and/or assigned the RU zoning district, decreasing the allowable density in the RU district would have the dual benefit of achieving both the lower density and intensity of development that is desired in the military impact areas as well as supporting the rural character of these intersecting areas. Decreasing

the base zoning density in the RU district would also support the broader implementation of low impact/conservation development techniques that have been recently adopted by the County.

Comprehensive Plan Amendments

As part of the planning process, the County's Comprehensive Plan was reviewed to examine the degree of support that it provided to protecting the military training mission by recommending the adoption of compatible land use policies and enhancing the degree of land use coordination between the County, the military installations and other communities in the region. Based on the review that was conducted, a set of amendments to the County's Comprehensive Plan have been prepared for consideration (see Appendix). These proposed amendments provide additional support for the adoption of land use regulations and other tools to enhance land use compatibility around the military installations, promote intergovernmental cooperation on land use compatibility issues, and provide additional general support for the preservation of the existing military training missions conducted at Fort Jackson, McCrary Training Center and McEntire Joint National Guard Base.

Transfer of Development Rights

Through the public input process, it became evident that an incentive based approach to enhancing land use compatibility should accompany the recommended regulatory approach. A transfer of development rights (TDR) program is an example of an incentive based approach that would allow property owners who are subject to additional regulatory



measures to retain the portion of the potential monetary value of their property that would otherwise be diminished by the additional regulations. A TDR program involves a “sending” area, which in this case would be areas subject to additional regulations in MAZs 1-8, and a “receiving” area, which would be an area that has been designated by the County as an economic development target area or other area where it wants to spur growth. An example of a potential receiving area for a TDR program would be the designated Priority Investment Area centered around the intersection of Lower Richland Boulevard and Garners Ferry Road.

This market based approach to incentivizing compatible land use practices works by granting property owners a set of development rights that can be severed from the property and transferred (sold) to developers who are proposing projects within a receiving area. To implement this type of program, the County would develop a set of criteria that establishes the amount of development rights that exist for each property within a sending area based on the existing zoning regulations. A separate analysis would determine the degree to which MAZ regulations diminish those rights. The resulting difference between the existing level and diminished level of development rights would then serve as the amount of development credit that would be allocated to each property. Following the establishment level of transferrable credit for each affected property, the property owners in the sending areas could then market their development rights to the real estate and development community. When purchased by a developer, the development credits from the sending property would

be used to increase the allowed intensity or density of development of a project in a defined receiving area.

If desired, the program could be expanded to allow the transfer of the full amount of development rights, as opposed to just those that are diminished by the adoption of the Military Activity Zones. An expanded program that allowed the full transfer of development credits from properties inside of military impact areas would help to further enhance future land use compatibility by permanently preserving land that could be adversely affected by noise, aircraft accident potential or other impacts.

A TDR program, if enacted to accompany the regulatory land use compatibility program, could help to lessen the potential degree of resistance to additional land use restrictions contained in the proposed MAZ Ordinance. This type of program would provide direct, tangible benefits to affected property owners and help the County encourage development in those areas that it designates as receiving areas. The adoption of a TDR program would require an extensive public education and outreach process in order to communicate these complex ideas to property owners, one which would necessarily continue following the adoption of the program. The County would also have to establish a monitoring program to track the transfer of development credits between property owners to prevent the manipulation of the program, and perhaps would need to serve as a neutral “pass-through” for the credits in the marketplace.



Permitting Procedures

The County, through its land development permitting process, can help to improve community awareness of the potential for military impacts. Specifically, the County could adopt a policy that requires a separate permit or acknowledgement form for use within military impact areas that would serve to inform property owners, contractors, developers or other individuals that the project that they are undertaking is within an area that is potentially subject to military impacts. This additional permitting or acknowledgement form should be utilized regardless of whether the particular project is subject to any additional regulation by virtue of being located within a Military Activity Zone. A similar procedure could be implemented as part of the application or review process for subdivisions or development proposals that are subject to approval by an appointed or elected body. For example, subdivision plats could be required to contain certificates acknowledging the potential for military impacts, again, regardless of whether the proposed subdivision is subject to additional regulations through an adopted MAZ.

Community Awareness and Coordination

Education and Outreach

The County, as well as the other jurisdictions in the region that are directly affected by military operational impacts should be engaged in an ongoing effort to educate the community on the military impacts that may affect the health, safety and welfare of residents in these areas. The military installations should fully support these efforts by contributing technical expertise and data to the outreach and education efforts,

and the local governments should combine their efforts in order to present a unified message to the community. Combined, the resources of the communities and the military installations will provide a more robust platform for communicating information about compatible land use programs and the potential health, safety and quality of life implications associated with the military impact areas.

When missions change, such as new ranges being added, changes in assigned aircraft, or new or expanded training missions, the potentially affected community should be engaged closely to ensure broad public knowledge of the impending changes. These outreach efforts should extend beyond simple mailed notice to include efforts such as community forums and broad press engagement across a wide range of media. Similar efforts should be undertaken to communicate upcoming training events or changes in mission tempo that would lead to changes in impacts (particularly noise) that could be associated with these short term training activities. Given the nature of these impacts (short term and potentially short notice) there should be efforts beyond the methods typically used to inform the public (mailed notice/newspaper ads), such as targeted TV/radio advertisement, social media contacts and dynamic message signage in and around the potentially impacted areas. Enhanced notification of high impact training events will allow the community to prepare for the potential impacts and adjust their schedules, plans, events and other activities accordingly to avoid being adversely impacted by the training.



Real Estate Disclosure

The disclosure of potential military impacts in conjunction with real estate transactions is another tool that is recommended as a method of enhancing community awareness of those impacts. A real estate disclosure program would ensure that all property transactions within a military impact area are accompanied by a statement revealing the presence of the potential impacts to the buyers. Without a disclosure requirement, real estate transactions could take place where a future property owner would have no reasonable way of knowing the presence or extent of a potential impact. In particular, this would be beneficial with regard to the relatively infrequent, but potentially high impact disturbances, such as, artillery noise that can be generated from training activities at Fort Jackson / McCrary Training Center.

A real estate disclosure program could be implemented either on the local level, potentially associated with MAZ 9, or through the implementation of a rule or statute at the state level that would require such disclosures. An example of a statewide program of military impact disclosures is in North Carolina, where the Real Estate Commission adopted military impact disclosure as an administrative rule in recent years. For a real estate disclosure program to be effective, a program of education for real estate agents and allied professionals should be implemented to teach them about the requirements of the program and the types of military impacts that exist in the communities that they serve.

Signage

Another program that should be considered is a community signage

program oriented toward informing the community of the existence of high noise impact areas. While simple, such signage can help raise general awareness of the presence of potential noise impacts. Signage could be scattered throughout the area along the general boundaries of the noise impact areas, and could either be supplemented with dynamic signage or dynamic message capability could be incorporated into the static signage to notify residents of upcoming training that will generate higher noise impacts than are typically occurring in the area.

Staff Training and Awareness

It is recommended that Richland County, and each jurisdiction in the region that is affected by military impact areas, ensure that their planning, zoning and building inspections staff members are fully aware of the military impacts and trained in how to communicate the potential negative effects of the impacts to residents, property owners, contractors, developers and others who they come into contact with during the course of performing their job duties. Richland County, and each jurisdiction in the region should designate a single staff person within the planning/zoning/inspections department to serve as a point of contact for military impact related issues in their jurisdiction and to assist with public education efforts. It is also recommended that the respective military installations assist with this effort by helping to train the local staff members. Additionally, building inspections staff should receive supplemental training to help them learn best practices for sound mitigation, which, in turn, would allow them to provide mitigation recommendations and education to the building trades community.



Regional Land Use Coordination

The 2009 Fort Jackson/McEntire JLUS recommended establishing a “JLUS Partnership Organization” that “consists of representatives from each local government, Fort Jackson/McCrary, McEntire JNGB, MAJIC, the Greater Columbia Chamber of Commerce Military Affairs Committee, CMCOG, and other stake holders such as BRAC coordinators” (JLUS Page 108). As an organizational model, the study highlighted the Fort Bragg area’s Regional Land Use Advisory Commission (RLUAC).

From its humble beginnings over twenty years ago, RLUAC has evolved into a membership corporation with IRS 501(c)(3) tax-exempt status, an annual operating budget, and a salaried part-time Executive Director. It counts among its members: Fort Bragg, eight surrounding counties, and twelve municipalities. It also has a strong partnering relationship with other organizations in the region including; the U.S. Fish and Wildlife Service, the N.C Sandhills Conservation Partnership Center, Sustainable Sandhills, and the Fort Bragg Regional Alliance. RLUAC’s purpose continues to be balancing the need to protect the military training mission from incompatible urban development, the safety of the civilian population living near the military boundaries, and the sustainability of the Longleaf Pine Ecosystem.

As mentioned in the JLUS, RLUAC conducts quarterly luncheon meetings that are normally attended by between 30 and 40 people. The gatherings include both business items and speakers who address issues and topics of mutual interest for both the military and local government members.

Of greatest potential usefulness in the Fort Jackson region is RLUAC’s land use review process. This effort was initiated shortly after the N.C. General Assembly adopted Session Law 2004-75, entitled “An Act to Require Counties and Cities Near Military Bases to Give Notice of Land-Use Planning Changes to the Military Bases”. Session Law 2004-75 requires local governments to notify military installations by “certified mail” of proposed zoning actions occurring within a five mile wide area surrounding their boundaries. The military is thereby afforded the opportunity to review and comment on the proposed zoning actions before the surrounding local governments can adopt them.

In late 2007 Fort Bragg contracted with RLUAC to conduct these mandated reviews on their behalf. RLUAC’s membership later agreed to expand the review process to include subdivisions and telecommunications towers proposed for the five-mile study area. Since that time RLUAC has reviewed over 400 cases.

RLUAC’s review process is triggered when the Executive Director receives notification from a local government (via “certified mail” or e-mail) of a proposed subdivision, telecom tower, or rezoning request for land located within five miles of the fort. Utilizing the provided parcel identification number (PIN), the Executive Director locates the property on its GIS maps (www.sandhillsgis.com) and makes the determination whether or not the requested change is compatible with the 2008 and 2009 JLUS recommendations and the identified military impact areas (noise contours, low-level aircraft flight patterns, and accident potential zones). The Executive Director composes and e-mails a “draft” review



to the RLUAC Board of Directors for their comment and approval. Once the Executive Director receives either e-mailed approvals from a majority of the Board Members or five working days have passed (whichever comes first), he e-mails the approved RLUAC review to the appropriate local government staff member.

Although RLUAC's recommendations are non-binding on both the military and local governments, they are now routinely included as part of the local government land use review process. In a number of instances, RLUAC's enumerated objections to a proposed zoning action have resulted in the denial of the request by the local planning authority.

Within the Fort Jackson region it would be possible to model the Fort Bragg Regional Land Use Advisory Commissions' successful land use review process without starting from "ground zero". The Central Midlands Council of Governments is well suited and willing to host the new "JLUS Partnership Organization" recommended in the 2009 study. Central Midlands should initiate the effort by inviting representatives from Fort Jackson / McCrary, McEntire JNGB, MAJIC, the Greater Columbia Chamber of Commerce Military Affairs Committee, and all the county and municipal governments to an organizational meeting. This meeting should identify a name for the group, determine the membership composition, the voting privileges, and frequency / location of future meetings. At follow-up meetings the organization should develop a purpose or vision statement, adopt by laws, and elect officers. RLUAC's Bylaws (see Appendix Two) can serve as a beginning point for these discussions.

Once the "JLUS Partnership Organization" has developed and adopted bylaws, it is suggested that the delegates seek the formal endorsement of the new organization by the military entities and surrounding local governments.

When the "partnership organization" is formally recognized by the military and local governments, a zoning and land use review process for the areas surrounding and between Fort Jackson / McCrary and McEntire JNGB can be developed and implemented. Once again this effort need not "reinvent the wheel", since a transferable working model already exists, as established by the Fort Bragg RLUAC.



Joint Land Use Study Implementation



Fort Jackson-McCrary Training Center-McEntire Joint National Guard Base



APPENDIX ONE MAZ OVERLAY AND COMPREHNSIVE PLAN AMENDMENTS



Introduction

Appendix One contains the recommended Military Activity Zone Overlay and Comprehensive Plan amendments as prepared by the consulting team's land use attorney, Tyson Smith, with White & Smith, LLC.

A. Introduction

Attached are draft amendments to the Richland County Comprehensive Plan (Exhibit 1) and a draft of the Military Activity Zone Overlay (the MAZO) (Exhibit 2) implementing the primary objectives of the 2009 Joint Land Use Study (the JLUS), other documents illustrating land use compatibility objectives, and input from stakeholder meetings this summer, including guidance from the military installations at Fort Jackson, Camp McCrary, and McEntire JNGB.

Please note, however, that the Plan Amendments and MAZO are *only a draft* that includes the tools identified in the JLUS for protecting post and community compatibility, which the Benchmark team has evaluated in light of anticipated growth patterns, road construction, and wastewater expansion projects.

The draft MAZO, in fact, might be viewed as the *most* restrictive approach that the County and the installations may choose to implement. There may be tools in the draft that legitimately may be viewed as unnecessarily restrictive or inapplicable in the current setting. In fact, in the JLUS, the Technical Committee recognized that while some of these tools have long-term value, all may not be fully feasible in the region at this time (see JLUS, p. 82, 86, noting, *e.g.*, that the "local jurisdiction is empowered to determine the intensities that are locally appropriate.").

We have tailored our recommendations (and those set out in the JLUS) to Richland County's specific code framework, proposing inclusion of the MAZO in Article V, "Zoning Districts and District Standards," or Chapter 26, "Land Development."¹

B. Relationship to Existing Richland County Airport Overlay District

The Richland County Land Development Code currently includes an Airport Overlay District (see s. 26-104, LDC), which generally regulates the approach and departure *airspace* for both McEntire JNGB and Jim Hamilton-L.B. Owens Airport. This airspace is described in detailed technical terms in the Airport Overlay and, in some cases, extends beyond

¹ The MAZO codifies defined terms in the existing definition section of the LDC, section 26-22, which applies to the entirety of Chapter 26, "Land Development."



the study area of the JLUS and the military activity zones in the MAZO.

The Airport Overlay current limits land uses that would penetrate or conflict with the approach and departure paths of military flights associated with McEntire JNGB, including height, emissions, electronic interference, and wildlife strikes.²

By contrast, the Draft MAZO provides standards to guide development of the *lands* surrounding the three installations, which are of more urgent concern due to documented noise impacts and accident potential. The JLUS recommends that the current Airport Overlay remains intact and be enforced alongside the MAZO and that is the framework in which the draft ordinance has been prepared. If the County wishes to emphasize or increase the standards applicable to these areas in the MAZO, it may do so. However, the current draft does not include the same restrictions already in the Airport Overlay district.

The MAZO also implements the South Carolina “Federal Defense Facilities Utilization Integrity Protection Act,” which the current ordinance does not do; though the County and installations report they are complying with its coordination requirements nonetheless.

² Note as well that section 26-177, of the LDC, governs outdoor lighting on all lands in unincorporated Richland County.

C. The Military Activity Zones Overlay (MAZO)

Consistent with the JLUS recommendations, the MAZO is structured around a series of “military activity zones” (MAZs) that cover private lands near the installations that experience documented, off-post impacts from military training and operations. There are nine (9) MAZs that correlate with military impact areas and subsections of the MAZO, as follows:

| Military Activity Zone | Military Impact Areas | MAZO Subsection |
|-----------------------------------|----------------------------------|----------------------------|
| 1 | <i>Accident</i> (Clear Zone) | (m) |
| 2 | <i>Accident</i> (APZ 1) | (l) |
| 3 | <i>Accident</i> (APZ 2) | (k) |
| 4 | <i>Noise</i> (80+ dB DNL) | (j) |
| 5 | <i>Noise</i> (75-79 dB DNL) | (i) |
| 6 | <i>Noise</i> (70-74 dB DNL) | (h) |
| 7 | <i>Noise</i> (65-69 dB DNL) | (g) |
| 8 | <i>Noise</i> (115 to 130 dB) | (f) |
| 9 | Statutory Notification Area | (e) |

MAZ 9 is the broadest zone and includes each of the other MAZs.³

³ Note that portions of MAZ 9 are located outside of the Study Area for the current project. Other portions of MAZ 9 are located in the City of Columbia or in Kershaw County. In order to apply the coordination component of MAZ 9 outside of Richland County, of course, the City of Columbia or Kershaw County would have to adopt independent



Overlap between accident and noise zones also will occur for some properties, in which case, the provisions of each zone will apply, thereby reducing the risk of both accident and noise impacts in places where these are projected as most likely to occur.⁴

Sections 26-112(a) and (b), describes the **purpose and applicability** of the MAZO, as well as how any conflicts between the MAZO and the rest of the LDC are handled. Section 26-112(c) lays out **generally applicable provisions** related to all properties subject to the overlay, including, for example, establishing the overlay map, nonconformities, pre-application conferences, and designation of coordinating officials with the County and the installations.

Section 26-112(d) establishes the nine (9) military activity zones, addresses the applicability of the zones to individual parcels (including requirements. Also, in the event Richland County wishes to adopt the full breadth of MAZ 9 in the unincorporated areas, it should simply be noted that notice to property owners for the current study was limited to the designated Study Area and required public processes should precede full adoption.

4 In order to better reflect the input we received from stakeholders and, in particular, military installation officials, during our interviews, we have proposed arranging the MAZs slightly differently than was proposed in the JLUS. There were two changes. First, we merged the 1,000 foot buffers (MAZs # 4 & 5, mostly concerned with off-post threats to soldiers) established in the JLUS into MAZ 9. The installation planners and officials did not indicate an ongoing concern with the development in these areas as distinguishable from the larger activity zones, as may have been anticipated when the JLUS was developed. Second, we established individual MAZs for each noise zone. Substantively, this does not represent a deviation from the JLUS's recommendations, which simply implemented the noise zones by a Single MAZ. With these changes, we've simply renumbered the MAZ accordingly.

those in more than one MAZ), and the compatibility standards that apply to properties within the MAZs as to both accident potential and noise impacts.

Section 26-112(e) covers **MAZ 9**, the broadest of the nine MAZs. MAZ 9 is designated as the County's "federal military installation overlay zone," under the "South Carolina Federal Defense Facilities Utilization Integrity Protection Act," and the **coordination** provisions required by that law. This subsection of the MAZO describes:

- (1) the types of land use approvals that trigger the coordination requirement
- (2) the processes for undertaking the coordination; and
- (3) the criteria to guide comments from the installation coordinating officials when a development proposal is forwarded to them for comment.

Although the 30-day comment period is statutorily required only for new plans and plan elements, variances, special exceptions, and appeals, we have included in the MAZO a comment opportunity for the military installations for seven (7) additional types of land use approvals when they are proposed within MAZ 9.

Subsection (f) lays out the additional requirements for those properties located within **MAZ 8**,⁵ which encompasses lands south, east, and

5 Note, of course, that some properties in MAZ 1 through MAZ 8 may also be subject to the statutory coordination requirements of MAZ 9. There is a cross-reference in the subsections covering MAZ 1 through MAZ 8 to ensure the property owner is on notice that MAZ 9 may apply.



northeast of Fort Jackson and McCraday Training Center, and which military officials have indicated are subject to noise exposure at peak mean decibels between 115 and 130. The noise here is generated by weapons training at the center and eastern portion of Fort Jackson and McCraday Training Center. Please note that some portions of MAZ 8 are outside of the current study area or are within incorporated Columbia or unincorporated Kershaw County.

These impacts are distinguishable from the high frequency noise impacts created by aircraft associated with McEntire JNGB, in that those near Fort Jackson commonly are of lower noise frequency, are of shorter duration, and occur less often the aircraft noise at McEntire. For this reason, noise attenuation and land use restrictions differ from those in MAZs 1-7, which are associated with McEntire. Furthermore, as noted in the JLUS, as well as a recent Operational Noise Consultation for McCraday Training Center (52-EN-OG04-12, May 17, 2012), the likelihood of noise complaints in these areas is low, even though residents will experience occasional impacts. Therefore, prohibited land uses are fewer than in the highest noise zone associated with McEntire, and, *as proposed*, limitations on land use are limited to multi-family residential, schools, livestock, and industrial and commercial uses that involve precision instrumentation that may be incompatible with vibrations and weaponry's low frequency noise.

Subsections (g) through (j) cover the following four (4) **noise contour zones**, respectively, around McEntire JNGB, according to the JLUS:

- (1) 65-69 dB DNL, MAZ 7

- (2) 70-74 dB DNL, MAZ 6
- (3) 75-79 dB DNL, MAZ 5
- (4) 80 dB and higher, MAZ 4

Land uses within these contours are limited according to the compatibility standards set out in Appendix B, which is cross-referenced in each of these ordinance subsections. The standards in the compatibility chart are based on those generally recommended by the military under its Air Installation Compatible Use Zones (AICUZ) guidelines, which are included in the JLUS, starting at page 63.

However, these guidelines are guidelines only – in two particular respects. First, it is up to the local government considering an overlay zone to determine which guidelines, if any, are appropriate to adopt and enforce. The land uses as proposed in the draft MAZO should be reviewed carefully by County and installation officials to consider the impact of permitted uses on military operations, the impact of military operations on permitted uses, and the extent to which the proposed land uses are different than those allowed today. Second, the guidelines are general in nature and, in some cases, specify ambiguities that they leave up to the local jurisdictions to resolve, each according to their own needs. For example, consider footnote 1 to the military's *suggested* AICUZ standards, which addresses lands in Accident Potential Zone 2 (APZ 2), which reads:

"Suggested maximum density of 1-2 dwelling units per acre, possibly increased under a Planned Unit Development (PUD) where maximum lot coverage is



less than 20 percent.”

Clearly, there are decisions to be made locally in this instance. In order to provide a starting point for that discussion, we have drafted footnote 1 to read:

“Maximum density may not exceed one (1) dwelling unit per acre.”

Again, through its deliberations, the COG committees or the Richland County Council may determine a higher density standard is appropriate in APZ 2. The point we wish to illustrate simply is that there is room for deliberation and discretion. We have provided only a starting point with the standards, as they are laid out, in the draft MAZO and compatibility table in Appendix B to the MAZO.

Finally, note that we have included noise attenuation standards, as recommended by the JLUS, within the footnotes to Appendix B. For example, consider the first-listed land use: “single units, detached.” These units are not allowed in MAZ 4 or 5 because, even with sound attenuation, single-family homes are not considered compatible with the level of noise created this close to military runways. On the other hand, single-family homes are permitted in MAZ 6 and 7 if sound attenuation is included in the home.⁶ By including attenuation features, noise levels within the home can be reduced 25-30 decibels,

⁶ The extent of attenuation is included in the footnotes to Appendix B and the process for establishing compliance is set forth in subsection 26-112 (d)(4) of the MAZO.

making the home compatible with everyday activities, despite noise impacts from McEntire.

However, as the JLUS notes, the Richland County building code (see Chapter 6 of the Richland County Code of Ordinances) cannot be amended to require noise attenuation standards without the recommendation of the director of Building Codes and Inspections Department and referral of the matter to the council for consideration, per code section 6-6. Please note that the attenuation standards are included in the draft MAZO for ease of reference during this review process. However, appropriate amendments to the MAZO and the County building code should precede final adoption should Richland County elect to implement these standards.

Subsections (k) through (m) of the draft MAZO cover the following three (3) **accident potential zones**, respectively, around McEntire JNGB, according to the JLUS:

- (1) Accident Potential Zone 2 (APZ 2), MAZ 3
- (2) Accident Potential Zone 1 (APZ 1), MAZ 2
- (3) Clear Zone, MAZ 1

Compatible land uses within these three zones also are set forth in the compatibility standards chart at Appendix B to the MAZO. As with the noise zones, the land uses allowed within the APZs, and the associated conditions of their development, should reflect the needs of the local community and be a product of local deliberations. The JLUS recommended that land uses of greater than 25 people per acre be prohibited in APZ 1 and of greater than 50 people per acre be



prohibited in APZ 2 (see pp. 100, 101, JLUS). Those criteria have guided the development of compatibility standards and floor area limitations in MAZ 1 and 2. The draft MAZO is a starting point, based on the JLUS recommendations and stakeholder input during the current project.

Finally, MAZ 1 encompasses those lands designated by the military as “**Clear Zones**,” or CZs. As with APZs, accident potential is very high in the CZs and, therefore, the JLUS recommends that most land uses that involve the presence of residents or employees be prohibited in these areas. Compatible land uses are set forth in the compatibility standards chart in Appendix B to the MAZO.

D. Additional JLUS Considerations

The JLUS recommends several additional compatibility tools that the County may consider, including mandatory avigation easements and required real estate disclosures throughout the JLUS Study area. However, these requirements have not been included in the current draft MAZO. If the County Council wishes to pursue them, they can be added during its adoption process.

Avigation easements sometimes are required to prohibit intrusions into the approach and departure zones associated with military airports as new developments are proposed. The dedication of such easements is sometimes encouraged, sometimes required. Their use is not widespread in military communities, but certainly is increasing and is viewed as a commitment to the mission of the local base.⁷

⁷ It should be noted that the South Carolina courts have not yet taken up the issue of requiring avigation easements as a condition of development approval. An Oregon administrative tribunal recently held that avigation

The JLUS recommends two areas of real estate **disclosure**; the first, requiring disclosure of a property’s proximity to a military installation prior to the sale or lease of the property for residential or commercial use. The second area covered is required disclosure associated with certain land use approvals at the time they are made. As with avigation easements, the use of real estate disclosures also is increasingly being used by communities that wish to ensure that land purchasers, lessees, and developers are aware of, at least, *the potential* that they or subsequent occupants of the land will experience impacts from the installation’s mission.

E. Summation and Next Steps

In sum, the draft MAZO implements the JLUS recommendations, in light of the input of military and civilian stakeholders received as part of this project, including updated noise contours and missions.

We have tailored the MAZO to be consistent with Richland County’s

easements required as a condition of approval, which set aside airspace for the airport without actually mitigating the impacts of the off-site land use itself, violated the US Supreme Court’s holding in Nollan v. California Coastal Commission, 483 U.S. 825 (1987). See Barnes v. City of Hillsborough, Port of Portland, LUBA No. 2010-011 (June 30, 2010). This administrative opinion, however, identified 3 components of a required avigation easement which, in that case, did *not* violate Nollan. Although this opinion is not binding on South Carolina courts, to take a conservative approach, we recommend that any proposed easement requirement reflect the holding in Barnes, limiting the required components to the areas within the imaginary surfaces protecting the approach and departure zones. In any case, though likely defensible, required avigation easements remain an area of some legal uncertainty in South Carolina.



Land Development Code and the current legal framework in South Carolina, including compliance with the state's "Federal Defense Facilities Utilization Integrity Protection Act."

However, at the time the Richland County Council considers adoption of the MAZO, the MAZO should be evaluated to confirm compliance with any intervening legislative or case law changes and to respond to any impacts the MAZO may have on individual properties and the community in southeastern Richland County as may be discerned during the public hearing process. Also, as noted, the noise attenuation standards included in the draft MAZO require changes to the Richland County building code prior to adoption.

Finally, it is recommended that, if the County Council supports the proposed Comprehensive Plan amendments, that they be processed during the next round of amendments, even if those amendments precede final consideration or Council action on a military activity overlay ordinance.

Exhibit 1:

Comprehensive Plan Amendments

The following amendments are proposed to the *2009 Richland County Comprehensive Plan*, reflecting the 2009 JLUS recommendations with respect to a proposed Military Activities Zone Overlay ordinance. The relevant element and page number are shown, as well as the text surrounding the recommended amendment.

Natural Resources Element

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FORT JACKSON

This 52,000 acre military base located in the City of Columbia has over 39,000 acres of managed forest land including longleaf pine, scrub oak, upland hardwood, splash pine, and bottomland hardwoods. An extensive forest management plan improves water quality, improves wildlife habitat, and combats forest diseases. Many endangered plant and animal species reside in the forested areas, including the red cockaded woodpecker.

As a federal agency, Fort Jackson must continue managing dedicated lands for endangered species habitat. As regional land is consumed by suburban development, wildlife is seeking refuge on remaining forests such as Fort Jackson. As additional species move onto the Fort, the military has less land available for military readiness training



activities, thereby limiting the viability of the post. Preserving natural habitat outside of the regional military installations will both improve the quality of natural resources in the region as well as protecting the military viability of these bases.

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GOAL 3

Protect natural resources near neighborhoods; provide citizens with access to nature.

Implementation Strategy:

- Create incentives protecting resources while allowing beneficial economic development.
- Consider innovative land use mechanisms, such as Transfer of Development Rights, clustering, density bonuses, wetland and stream mitigation, low impact development best management practices, and conservation easements as tools to protect sensitive lands.
- Continue coordinating with Midlands Area Joint Installation Consortium (MAJIC) and other conservation land trusts to implement the Joint Compatible Use Buffer conservation easement program. Provide outreach assistance by making developers and landowners aware of the program and posting maps of targeted areas in the region.

Time Frame: Continuous.

Economic Development Element

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IMPORTANCE OF MILITARY INSTALLATIONS

The County is home to 3 military installations: Fort Jackson, McCraday Training Center, and McEntire Joint National Guard Station Base. These 3 installations are important for National Defense and are economic generators for the state and surrounding local economies. In 2009, the Central Midlands Council of Governments completed a Joint Land Use Study (JLUS), which identified existing compatibility threats to the installations and recommended specific steps for avoiding further encroachment of incompatible land uses. In order to protect the mission of these installations and the quality of life and safety for current and future residents near them, the County Council should pursue the JLUS recommendations, including a Military Activity Zones Overlay District that would ensure ongoing compatibility between the installations and the safety of private property owners.

The U.S. Army Training center at Fort Jackson trains 50% of all Soldiers including 70% of women entering the Army each year. It is Fort Jackson's mission is training in excess of 50,000 basic training and advanced individual training soldiers every year. An additional 12,000 students attend courses at the Soldier Support Institute, Chaplain Center and School and Drill Sergeant School annually (<http://www.jackson.army.mil/>).

Fort Jackson contains over 52,000 acres, including over 100 ranges and field training sites and 1,160 buildings. A number of different residents



including civilians, retirees and their family members make up the growing Fort Jackson community. More than 3,900 active duty soldiers and their 14,000 family members are assigned to the installation. Fort Jackson employs almost 5,200 civilians and provides services for more than 36,000 retirees and their family members (<http://www.jackson.army.mil/>).

Fort Jackson ~~has~~ will continued to growing in the future as a result of the ~~2005 recent~~ Base Realignment and Closure Commission's (BRAC) decision to make Fort Jackson the home of the Army's only Drill Sergeant School, the Department of Defense Joint Center of Excellence for Military Chaplaincy and one of four new Regional Readiness Sustainment Commands. However, missions are not guaranteed in future realignment and closure processes and the County should continue to maintain compatibility between base operations and off-base land uses to ensure the ability of the installations to continue their missions and the safety and quality of life of those in proximity to the installations.

Community Facilities Element

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INTERGOVERNMENTAL COORDINATION

Currently there is very little coordination of system expansion among the water utility companies. The South Carolina Department of Health and Environmental Control (SCDHEC) oversees the construction of all water distribution lines. System expansion or new system

construction reacts to the development. This approach has hindered system improvements for isolated, but emerging, growth centers for the County that are either too far from existing service or part of a project in which the developer does not have the means to undertake major utility construction. Current initiatives for intergovernmental coordination at the County level are limited to the subdivision review process.

In addition, the County should coordinate with officials at Fort Jackson, McCrary Training Center, and McEntire JNGB when it becomes aware or plans infrastructure expansions in proximity to these installations; especially infrastructure that could directly interfere with military missions, could encourage incompatible growth in the area, or threaten the safety or quality of life of future County residents or employees.

Priority Investment Element

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INTERGOVERNMENTAL COORDINATION

Under the new Priority Investment Act (PIA), the County must coordinate with adjacent and relevant jurisdictions and agencies before recommending projects for public expenditure. Below is a list of those jurisdictions and agencies provided the opportunity to be involved in the development of the Richland County Comprehensive Plan:



Cities/Towns

- City of Columbia
- Town of Irmo
- Town of Blythewood
- Town of Forest Acres
- Town of Eastover
- Town of Cayce

Counties

- Newberry County
- Fairfield County
- Kershaw County
- Sumter County
- Lexington County
- Calhoun County

School Districts

- Richland County School District One
- Richland County School District Two
- School District Five of Lexington and Richland Counties

Utility Providers

- East Richland Public Sewer District
- Alpine Utilities
- Bush River Utilities, Inc.
- Carolina Water Service
- Palmetto Utilities
- City of Columbia Public Works Department
- Richland County Public Works Department

Military Installations

- Fort Jackson
- McEntire Training Center
- McEntire Air National Guard

Land Use Element

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INTRODUCTION

Informed recommendations guiding future growth and development require information on existing land use patterns. This enables the identification of specific areas available for future growth, while enabling the community to repeat successful growth patterns that



are successful. This Element addresses existing land use patterns and identifies projected future land use development over the next 10 years. Below are some insights into how Richland County is growing and the problems facing the County now and in the future.

- Growth is occurring at a faster rate in unincorporated areas.
- Between 1990 and 2000, the County experienced a growth rate of 12%. By 2035, it is expected to grow by 40.1% to approximately 451,000 people.
- Inefficient land use patterns are an increasing problem in the North East and North West resulting in traffic congestion, crowded schools, vacant stores, overextended infrastructure, diminished air quality, and the loss of open space.
- Incompatible uses are slowly encroaching on our military bases, including Fort Jackson/McCrary Training Center and McEntire, hampering the mission and viability of the bases and threatening the safety and quality of life of County residents and employees.

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Figure 49: 10 year Future Land Use Map – amend legend reference of “3000 foot Military Buffer” to “Military Activity Zone 9;” and amend map to show MAZ 9, instead of 3,000 foot buffer

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Figure 50: North West Future Land Use Map – amend legend reference of “3000 foot Military Buffer” to “Military Activity Zone 9”

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Figure 51: North Central Future Land Use Map – amend legend reference of “3000 foot Military Buffer” to “Military Activity Zone 9”

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Figure 52: North East Future Land Use Map – amend legend reference of “3000 foot Military Buffer” to “Military Activity Zone 9;” and amend map to show MAZ 9, instead of 3,000 foot buffer

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Figure 53: Beltway Future Land Use Map – amend legend reference of “3000 foot Military Buffer” to “Military Activity Zone 9;” and amend map to show MAZ 9, instead of 3,000 foot buffer

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Figure 54: South East Future Land Use Map – amend legend reference of “3000 foot Military Buffer” to “Military Activity Zone 9;” and amend map to show MAZ 9, instead of 3,000 foot buffer

MILITARY BUFFER

A growing concern in the South East is the protection of the military bases as incompatible uses encroach upon these areas and the safety and quality of life for future residents and employees in the South



East. Maintaining the compatibility of land uses around the military installations and reducing potential conflicts between the neighboring community and the mission of these military bases is imperative. In order to alleviate this growing problem, several Federal, State and local agencies, including the Central Midlands Council of Governments (CMCOG), the City of Columbia, and Richland County have collaborated, preparing the 2009 Fort Jackson and McEntire Joint Land Use Study (JLUS), which identified areas around the installations within which incompatibilities should be avoided and recommended policies for doing do. ~~Technical Committee determining compatible land uses within these areas. Based on early findings of the Committee, a buffer has been placed around both Fort Jackson and McEntire on the Future Land Use Map preventing encroachment of incompatible uses.~~

JOINT LAND USE STUDY (JLUS)

The JLUS has identified possible implementation options for accomplishing the goal of protecting military installations while facilitating compatible economic development and residential growth around these bases. The Study recognizes the importance of these military training bases not only as key national defense training facilities but as economic generators for the state and Midlands region. These implementation options include ongoing conservation strategies of purchasing voluntary conservation easements from willing property owners as well as voluntary transfer of development rights (TDRs), aviation and noise easements, and a military activity overlay zone for ensuring compatibility between military operations and off-base land uses ~~preventing the encroachment of incompatible land uses around~~

~~the military installations in this County.~~

Specific land uses in recognized hazardous areas can create potentially hazardous situations. Accident Potential Zones (APZs) and Clear Zones are identified using accident data collected by the US Air force. The JLUS acknowledges dangers in these areas and recommends certain land uses be prohibited in the APZs. Uses that concentrate people who are limited in their ability to respond to emergency situations such as schools or nursing homes are not recommended uses in the APZs. Land uses that encourage a concentration of people are also not recommended. These may include multi-family developments, recreation areas, or churches. Clear Zones are areas extending 3,000 feet from both ends of a runway. Air force data shows that the majority of accidents occur, during take off and landing, in the Clear Zones. Due to significant crash risks in the Clear Zones JLUS recommends that agriculture, livestock grazing, and permanent passive open spaces are the best uses for these areas. Small area corridor planning similar to Neighborhood Master Plans, specifically for major corridors in the study area such as Percival Road, Old Leesburg Road, and Garners Ferry Road may help prevent incompatible growth and land uses while encouraging compatible development. Overlays are recommended for creating incentives for sound reduction measures, height restrictions, lighting standards, and corridor/small area plans.

~~The JLUS has not yet issued its final findings. New information will be incorporated into the Comprehensive Plan as it becomes available. For additional information, please visit~~ <http://www.jacksonjlus.com/>.



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GOALS AND IMPLEMENTATION STRATEGIES

...

GOAL 7

Study the land uses around Fort Jackson and McEntire limiting the encroachment of incompatible land uses.

Implementation Strategy:

- Adopt zoning and other regulatory land use protection measures to ensure compatible development within the military activity zones identified in the Joint Land Use Study ~~protecting these facilities from encroachment of incompatible and undesirable land uses.~~
- Continue active County participation in the Joint Land Use Study (JLUS) implementation phases for these facilities.
- Seek written ~~Execute~~ agreements among the adjacent local governments, military installations, and other entities necessary to implementing the JLUS recommendations.

Time Frame: Immediate and throughout the life of this plan.



Exhibit 2:

Draft Military Activity Zone Overlay Ordinance

STATE OF SOUTH CAROLINA

COUNTY COUNCIL FOR RICHLAND COUNTY

ORDINANCE NO. ____ - ____

AN ORDINANCE AMENDING THE RICHLAND COUNTY CODE OF ORDINANCES, CHAPTER 26, LAND DEVELOPMENT, ARTICLE V, ZONING DISTRICTS AND DISTRICT STANDARDS, ADOPTING SECTION 26-112, MILITARY ACTIVITY ZONE OVERLAY DISTRICT, SO AS TO ENSURE LONG-TERM COMPATIBILITY BETWEEN THE MISSIONS OF FORT JACKSON, McCRADY TRAINING CENTER, AND McENTIRE JOINT NATIONAL GUARD BASE, AND THE PROPERTY RIGHTS AND QUALITY OF LIFE OF LAND OWNERS IN PROXIMITY TO THESE INSTALLATIONS; AMENDING CHAPTER 26, LAND DEVELOPMENT, ARTICLE II, RULES OF CONSTRUCTION; DEFINITIONS, SECTION 26-22, DEFINITIONS, TO ADOPTED TERMS RELATED TO THE MILITARY ACTIVITY ZONE OVERLAY DISTRICT.

WHEREAS, residents and employees in proximity to the military installations of Fort Jackson, McCrary Training Center, and McEntire Joint National Guard Base (JNGB) may be subject to noise, vibration, and aircraft accidents if reasonable and necessary steps are not taken to avoid or mitigate these impacts and to encourage compatible land

uses near these installations; and

WHEREAS, the South Carolina General Assembly has found that there is a significant potential for uncoordinated development in areas contiguous to military installations and that such development patterns may undermine the integrity and utility of land and airspace currently used for mission readiness and training; and

WHEREAS, in 2004, the General Assembly adopted the “Federal Defense Facilities Utilization Integrity Protection Act,” which sets forth a process with which local governments must comply regarding coordination with federal military installations prior to certain land use and zoning decisions in proximity to the installation; and

WHEREAS, the County has received input from installation officials and personnel to identify land use compatibility areas near the installations, including the following documents:

- (a) Fort Jackson Operational Noise Management Plan (ONMP) (2008),
- (b) McCrary Training Center Operational Noise Consultation (No. 52-EN-OG04-12, March 30, 2012);
- (c) Fort Jackson/McEntire Joint Land Use Study (November 2009);
- (d) Air Installation Compatible Use Zone Study; McEntire Joint



National Guard Base (August 2008); and

- (e) McEntire Joint National Guard Base Draft EIS, Initial F-35A Operational Basing (March 2012); and

WHEREAS, between 2008 and 2009, County representatives participated in the development of the Joint Land Use Study for Fort Jackson, McCraday Training Center, and McEntire JNGB, dated November 2009 (the 2009 JLUS); and

WHEREAS, the 2009 JLUS recommends certain compatibility tools for implementing its recommendations, including a separate military activity zone district overlay; and

WHEREAS, the 2009 JLUS recommends that concentrations of persons be limited to 25 people per acre within APZ 1 accident potential zone and 50 people per acre with APZ 2 accident potential zone; and

WHEREAS, the County has considered, among other things, the character of flying operations expected to be conducted at the Installations, the nature of the terrain and the character of the neighborhoods within the areas affected by this Ordinance, the uses to which the property to be affected is put and adaptable, and the impact of any new use, activity, or construction on the Installation's training and operations missions; and

WHEREAS, the County Council wishes to protect the property rights and the quality of life of current and future citizens within the lands proximate to the Installations; and

WHEREAS, Section 22-104, of the Richland County Code of Ordinances, establishes an "Airport Overlay" District, which restricts certain intrusions into the approach and departure airspace for McEntire JNGB, but does not otherwise protect McEntire JNGB, Fort Jackson, and McCraday Training Center and the citizens of Richland County near these installations from encroaching land use activities as identified in the 2009 JLUS and by the Installations; and

WHEREAS, the County Council further wishes to protect the safety and quality of life of Richland County residents and employees; and

WHEREAS, the County Council hereby finds and declares that adoption of this Ordinance is necessary, appropriate, and advances the public interest.

Pursuant to the authority granted by the Constitution and the General Assembly of the State of South Carolina, **BE IT ENACTED BY THE COUNTY COUNCIL FOR RICHLAND COUNTY:**

SECTION 1. The Richland County Code of Ordinances, Chapter 26, Land Development; Article II, Rules of Construction; Definitions, Section 26-



22, Definitions; is hereby amended to add the following defined terms:

County coordinating official. The Director of the County's Department of Planning and Development Services, who is responsible for administering and enforcing the requirements of this section, or the Director's designee.

Fort Jackson coordinating official. The Commanding General at Fort Jackson or the Commander's designee.

Installation coordinating officials. The Fort Jackson coordination official, McCrary Training Center coordination official, and the McEntire JNGB coordinating official.

McCrary coordinating official. The brigade Commander at McCrary Training Center or the Commander's designee.

McEntire coordinating official. The Commander at McEntire JNGB or the Commander's designee.

Military activity zones (MAZ). The geographic areas so designated on the military activity zone overlay district map, maintained by the Department of Planning and Development Services, and attached hereto as Appendix A.

Military installations. Fort Jackson, McCrary Training Center, and McEntire Joint National Guard Base.

Noise level. The quantity in decibels measured by an instrument satisfying the requirements of American Standard Specification for Type I Sound Level Meters. The sound level shall be the frequency weighted sound pressure level obtained with the frequency weighting

"A" and the standardized dynamic characteristics "SLOW."

Noise level reduction (NLR). The difference in dBA between the noise level outside the building and the noise level inside the building or a designated room in the building.

Qualified acoustical consultant. A person having sufficient training and experience in the science and technology of acoustics and knowledge of construction methods and materials to be qualified to evaluate the adequacy of acoustical design, materials, and methods of construction for attenuation of noise.

Regular basis. A set period or series of repetitive or frequent occurrences comprising a uniform and consistent pattern, where organized groups of people assemble for periods of six (6) to eight (8) hours within a twenty-four (24) hour period.

SECTION 2. The Richland County Code of Ordinances, Chapter 26, Land Development; Article V, Zoning Districts and District Standards, Section 26-112, Military Activity Zone Overlay District; is hereby adopted as follows:

Section 26-112. MAZ Military Activity Zone Overlay Districts.

(a) Purpose. The purpose of this section is to protect future residents and employees in proximity to Fort Jackson, McCrary Training Center, and McEntire JNGB, by establishing standards to avoid or mitigate aircraft obstructions, noise impacts, and land use incompatibilities, and to promote the public health, safety, and welfare of the citizens of Richland County.

(b) Applicability and conflict.



(1) Compliance with the provisions of this section does not constitute compliance with other local, federal, or state requirements related to land use impacts on aviation, and all such requirements are in addition to the requirements of this section.

(2) The provisions of section 26-104, AP Overlay District, are in addition to the applicable provisions of this section.

(3) In the event of a conflict between the requirements of this section and another provision of this Code of Ordinances, the more restrictive provision applies.

(4) Unless otherwise provided expressly herein, for purposes of applying the provisions of this section to parcels lying only partially within a military activity zone, only the portion of the parcel within the zone shall be subject to the requirements of the applicable military activity zone.

(c) General provisions.

(1) Military activity zone overlay district map. This section establishes the military activity zones within which specified regulations apply, which areas are shown on the military activity zone overlay district map in Appendix A hereto and on file with the Department of Planning and Development Services, in a GIS format, such that the location of military activity zone boundaries may be established on a parcel-by-parcel basis.

(2) County property assessor records. The county coordinating official will provide necessary information to the Richland County property assessor's office in order to include applicable military ac-

tivity zones in the property search function of the County website.

(3) Pre-application conferences. Applicants may schedule a pre-application meeting with the installation coordinating officials and county coordinating official in order to review preliminary development application plans and ensure timely compliance with this section.

(4) Nonconformities. Unless provided for otherwise by its express terms, this section does not necessitate the removal, change, or alteration to any nonconforming use structure, land use, or tree existing on the effective date of this section. The provisions of Article XI, Nonconformities and, as applicable, section 26-104(f) of this Code, govern any nonconformities created by this section.

(5) Coordinating officials. At all times following the effective date of this section, Richland County and the military installations will designate and maintain the following position within their respective agencies.

- a. County coordinating official.
- b. Fort Jackson coordinating official.
- c. McCrary coordinating official.
- d. McEntire coordinating official.

(6) Mission changes. In the event that mission and operational changes occur on the military installations, after the date of adoption of this section, which changes necessitate amendments to this section, section 26-14, or to the military activity zone overlay district map, the installation official from the relevant military installation will provide documentation to the county coordinating official in support of a requested amendment. Based on the documentation



and input from the installation coordinating official, the county coordinating official will make recommendations to the County Council as to the changes, if any, that would reflect documented changes in missions and operations.

(d) Military activity zones and overlay district established; applicability.

(1) *Zones established.* There is hereby established the military activity zones overlay district to include all lands designated within the military activity zones overlay district map, which is set forth in Appendix A to this section.

(2) *Applicability.* A military activity zone may encompass all or a portion of other zoning districts created under this Article. An applicant for development within a military activity zone or zones must comply with the requirements of each zone within which the subject property is located. In the event of a conflict between requirements of military activity zones or general zoning districts, the more restrictive requirement applies. A variance to or waiver of any such more restrictive requirement does not constitute a variance or waiver of the less restrictive requirement.

(3) *Compatible use provisions.*

a. The compatible use standards applicable within MAZ 1, MAZ 2, MAZ 3, MAZ 4, MAZ 5, MAZ 6, MAZ 7, and MAZ 8 are set forth in the compatible use table in Appendix B to this section.

b. Standards within the applicable MAZ are

designated in three (3) categories:

1. Prohibited (X): regardless of whether the use is otherwise permitted by the underlying zoning district standards of the parcel, the land use is prohibited based on the provisions of this section.
2. Permitted (P): the provisions of this section do not prohibit the land use, though all other zoning, County requirements, and applicable provisions of this section apply to the parcel.
3. Permitted with special requirements (SR): though allowed, the land use must meet the guidelines set forth in the footnotes to the compatibility standards in Appendix B, in accordance with the provisions of section 26-151 of this Code.

c. The county coordinating official will apply the land use listed in Appendix B to any proposed use not specifically listed, based on the similarity of the proposed use to a listed use with respect to noise sensitivity and accident potential, after consultation with appropriate installation coordinating officials.

d. The compatible use standards in Appendix B to this section are in addition to the requirements in the Table of Permitted Uses in section 26-141, of this Code, and, in the event of a conflict, the more restrictive provision applies.

(4) *Noise Zones.* The following provisions apply to parcels



or portions thereof in MAZ 4, MAZ 5, MAZ 6, MAZ 7, or MAZ 8.

a. For purposes of applying the noise level reduction provisions of this section to parcels lying in more than one MAZ, only the portion of the parcel within the zone is subject to the requirements applicable to that zone. However, where a portion of a building or room lies within more than one MAZ, or which is only partially within an MAZ, the more restrictive noise level reduction requirements apply to the entire building or room.

b. Development that, pursuant to Appendix B, requires noise level reduction, shall not be approved unless:

1. The applicant provides a testing certificate from a qualified acoustical consultant, architect or engineer licensed in the state of South Carolina, as provided by law, that all structures associated with the noise-sensitive use will achieve an average minimum dBA reduction equal to or greater than the required minimum noise level reduction; or
2. In lieu of the required test, the applicant submits an engineering judgment signed and sealed by an engineer licensed in the state of South Carolina, that in his or her opinion a structure built according to submitted plans will meet the minimum required noise level reduction, based on the construction standards in section 4 or section 5, as applicable, in Appendix D of the

“Guidelines for Sound Insulation of Residences Exposed to Aircraft Operations,” prepared for the Department of the Navy, by Wyle Research and Consulting, Arlington Virginia, April 2005, on file with the Office of Legislative Services.

3. The Building Inspector may require, prior to granting a certificate of occupancy for a building subject to the requirements of this section, at the expense of the owner, field tests by a qualified acoustical consultant, architect or engineer licensed in the state of South Carolina, to verify the noise level reduction of the building, or as provided by law.

(e) Military activity zone 9 (MAZ 9).

(1) Applicability.

a. All parcels and portions thereof included within the MAZ 9 military activity zone on the military activity zone overlay district map are subject to the provisions of this subsection (e).

b. For purposes of complying with the Federal Defense Facilities Utilization Integrity Protection Act of South Carolina, MAZ 9 is designated as Richland County’s federal military installation overlay zone.



(2) *Coordination.*

a. At least thirty (30) calendar days prior to any hearing by the County on an application for any of the following land use approvals proposed within MAZ 9, the county coordinating official will request from each installation coordinating official a written recommendation, with supporting facts, with regard to the matters specified in subsection e. below, relating to the use of the property which is the subject of review:

1. Amendment to or adoption of a new element to the comprehensive plan.
2. Amendment to the official zoning map or zoning district and district standards in Article V, pursuant to section 26-52, of the Code of Ordinances.
3. Special exceptions, pursuant to section 26-56, of the Code of Ordinances.
4. Appeals, pursuant to section 26-58, of the Code of Ordinances.
5. Variances, pursuant to section 26-57, of the Code of Ordinances.

b. At least ten (10) calendar days prior to a final decision by the County on an application for any of the following land use approvals proposed within MAZ 9, the county coordinating official will notify each installation coordinating official that the application has been submitted, the anticipated date of a final decision, and inviting comments with regard to the matters specified in subsection e. below, relating to the use of the property which is the subject of review:

1. Subdivisions of land creating 5 or more new lots, pursuant to section 26-54, of the Code of Ordinances.
2. Land disturbance permits, pursuant to section 26-64, of the Code of Ordinances 26-64.
3. Permitted uses with special requirements, pursuant to section 26-55, of the Code of Ordinances.
4. Planned developments, pursuant to section 26-59.
5. Certificates of zoning compliance, pursuant to section 26-60, of the Code of Ordinances.
6. Sign permits, pursuant to section 26-62, of the Code of Ordinances.
7. Temporary use permits, pursuant to section 26-63, of the Code of Ordinances.



c. If an installation coordinating official does not submit a recommendation or comments, by the date of the public hearing or final decision, there is a presumption that the proposed land use application does not have any adverse effect relative to the matters specified in subsection e.

d. Upon receipt, the county coordinating official will make any written recommendations or comments received a part of the public record and, in addition to meeting other requirements of this Code of Ordinances, with respect to the approvals listed in (2) (a) above, will investigate and make recommendations of findings with respect to each of the matters enumerated in subsection e.

e. In evaluating any land use application proposed in subsections a. or b., the county and installation coordinating officials will consider the following criteria with respect to the proposed application:

1. Whether the application, if approved, will permit a use that is suitable in view of its location relative to a military installation and its location in MAZ 9 or other military activity zones.
2. Whether the application, if approved, will adversely affect the existing use or usability of nearby property within MAZ 9.
3. Whether the subject property has a reasonable economic use as currently zoned;

4. Whether the application, if approved, will result in a use which causes or may cause a safety concern with respect to excessive or burdensome use of existing streets, transportation facilities, utilities, or schools where adjacent or nearby property is used as a military installation.
5. Whether the application, as proposed, is in conformity with the policy and intent of the comprehensive plan given the proximity of a military installation.
6. Whether there are other existing or changing conditions affecting the use of the nearby property, such as a military installation, which give supporting grounds for either approval or disapproval of the application as proposed.

At least sixty (60) days before any official consideration by the County Council to fund or plan for a transportation, water, or sewer capital improvement that would expand the development capacity within MAZ 9, the county coordinating official will notify the installation coordinating Officials and will identify the location and timing of the proposed capacity-expanding capital improvements.



(f) Military activity zone 8 (MAZ 8).

(1) Lands in MAZ 8 are located south of Fort Jackson and McCraday Training Center and have been identified by the military as likely to experience noise impacts averaging between 115 and 130 dB, resulting from operations and training at these military installations.

(2) New development approved after the effective date of this section, which is proposed on parcels and portions thereof included within the MAZ 8 military activity zone, are subject to the provisions in Appendix B to this section, in the column designated MAZ 8, as well as the provisions of subsection (e) above, if applicable.

(g) Military activity zone 7 (MAZ 7).

(1) Lands in MAZ 7 include those around McEntire JNGB and have been identified by the military as likely to experience noise impacts of between 65-69 dB DNL, resulting from operations and training at McEntire JNGB.

(2) New development approved after the effective date of this section, which is proposed on parcels and portions thereof included within the MAZ 7 military activity zone, subject to the provisions in Appendix B to this section, in the column designated MAZ 7, as well as the provisions of subsection (e) above, if applicable.

(h) Military activity zone 6 (MAZ 6).

(1) Lands in MAZ 6 include those around McEntire JNGB and have been identified by the military as likely to experience noise impacts of between 70-74 dB DNL, resulting from operations and training at McEntire JNGB.

(2) New development approved after the effective date of this section, which is proposed on parcels and portions thereof included within the MAZ 6 military activity zone, are subject to the provisions in Appendix B to this section, in the column designated MAZ 6, as well as the provisions of subsection (e) above, if applicable.

(i) Military activity zone 5 (MAZ 5).

(1) Lands in MAZ 5 include those around McEntire JNGB and have been identified by the military as likely to experience noise impacts of between 75-79 dB DNL, resulting from operations and training at McEntire JNGB.

(2) New development approved after the effective date of this section, which is proposed on parcels and portions thereof included within the MAZ 5 military activity zone, are subject to the provisions in Appendix B to this section, in the column designated MAZ 5, as well as the provisions of subsection (e) above, if applicable.



(j) Military activity zone 4 (MAZ 4).

(1) Lands in MAZ 4 include those around McEntire JNGB and have been identified by the military as likely to experience noise impacts in excess of 80 dB DNL, resulting from operations and training at McEntire JNGB.

(2) New development approved after the effective date of this section, which is proposed on parcels and portions thereof included within the MAZ 4 military activity zone, are subject to the provisions in Appendix B to this section, in the column designated MAZ 4, as well as the provisions of subsection (e) above, if applicable.

(k) Military activity zone 3 (MAZ 3).

(1) MAZ 3 zones project from both the north and south ends of the runway at McEntire JNGB and include lands designated by the military as being within Accident Potential Zone 2 (APZ 2) and of being at a higher risk of an aircraft accident than surrounding lands.

(2) New development approved after the effective date of this section, which is proposed on parcels and portions thereof included within the MAZ 3 military activity zones, are subject to the provisions in Appendix B to this section, in the column designated MAZ 3, as well as the provisions of subsection (e) above, if applicable.

(3) In addition to the standards set forth in Appendix B, no commercial use of land is permitted that:

- a. Includes a building footprint in excess of 15,000

square feet.

- b. Includes side yard setbacks of less than ten feet.
- c. Exceeds lot coverage of 35%.

(l) Military activity zone 2 (MAZ 2).

(1) MAZ 2 zones project from both the north and south ends of the runway at McEntire JNGB and include lands designated by the military as being within Accident Potential Zone 1 (APZ 1) and of being at a higher risk of an aircraft accident than surrounding lands or those within MAZ 3.

(2) New development approved after the effective date of this section, which is proposed on parcels and portions thereof included within the MAZ 2 military activity zones, are subject to the provisions in Appendix B to this section, in the column designated MAZ 2, as well as the provisions of subsection (e) above, if applicable.

(3) In addition to the standards set forth in Appendix B, no commercial use of land is permitted that:

- a. Includes a building footprint in excess of 8,000 square feet.
- b. Includes side yard setbacks of less than fifteen feet.
- c. Exceeds lot coverage of 20%.



(m) Military activity zone 1 (MAZ 1).

(1) MAZ 1 zones project from both the north and south ends of the runway at McEntire JNGB and include lands designated by the military as being within a Clear Zone and of being at greatest risk of an aircraft accident.

(2) All parcels and portions thereof included within the MAZ 1 military activity zones on the military activity zone overlay district map are subject to the provisions in Appendix B to this section, in the column designated MAZ 1, as well as the provisions of subsection (e) above, if applicable.

SECTION 3. SEVERABILITY. If any section, subsection, or clause of this ordinance shall be deemed unconstitutional or otherwise invalid, the validity of the remaining sections, subsections, and clauses, shall not be affected thereby.

SECTION 4. EFFECTIVE DATE. This ordinance shall be effective from and after _____, 2013.

RICHLAND COUNTY
COUNCIL

BY:

Kelvin E. Washington, Sr.
Chair

ATTEST THIS _____ DAY

OF _____, 2013

Michelle M. Onley
Clerk of Council

RICHLAND COUNTY ATTORNEY'S OFFICE

Approved as to Legal Form Only

No Opinion Rendered as to Content

Public Hearing:

First Reading:

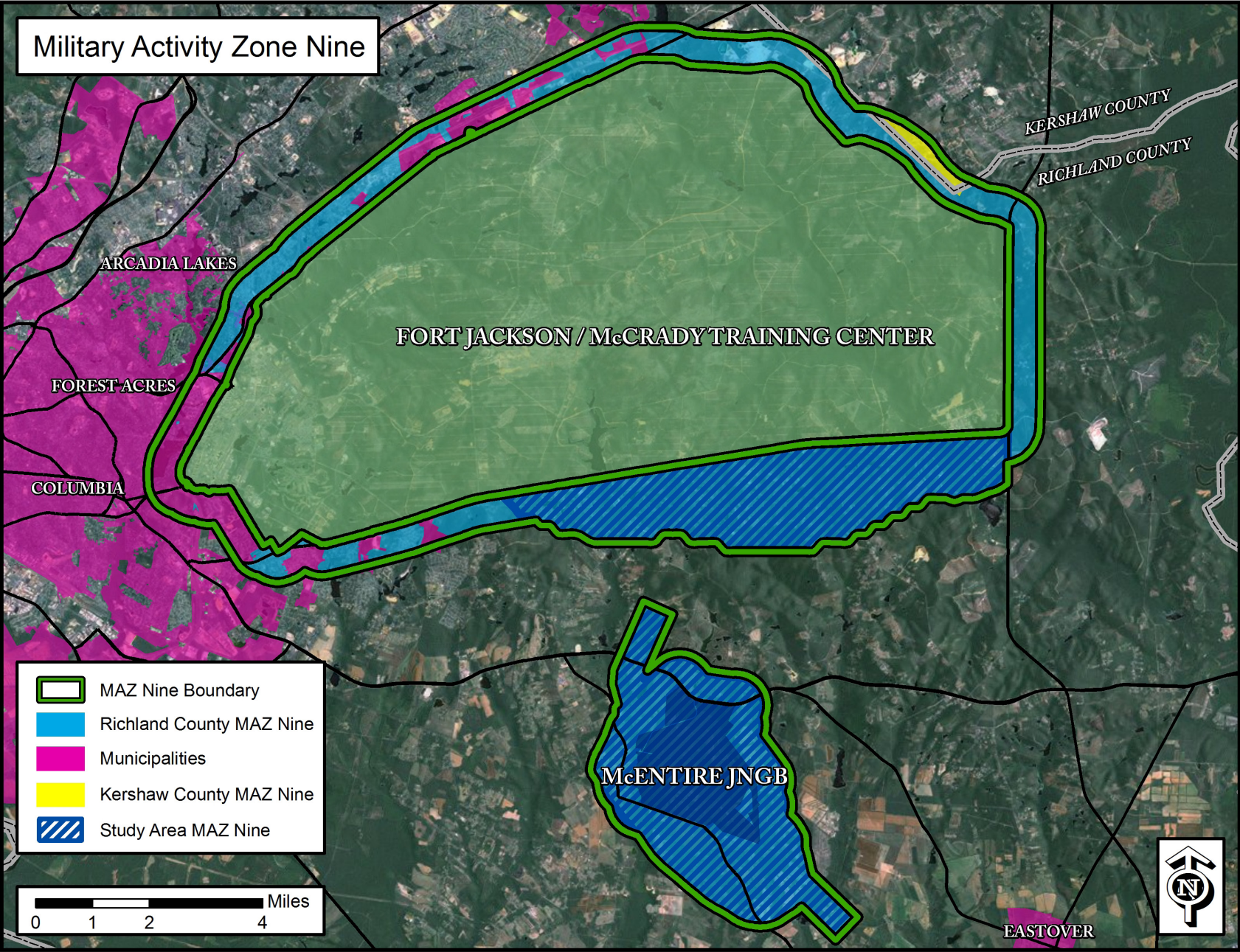
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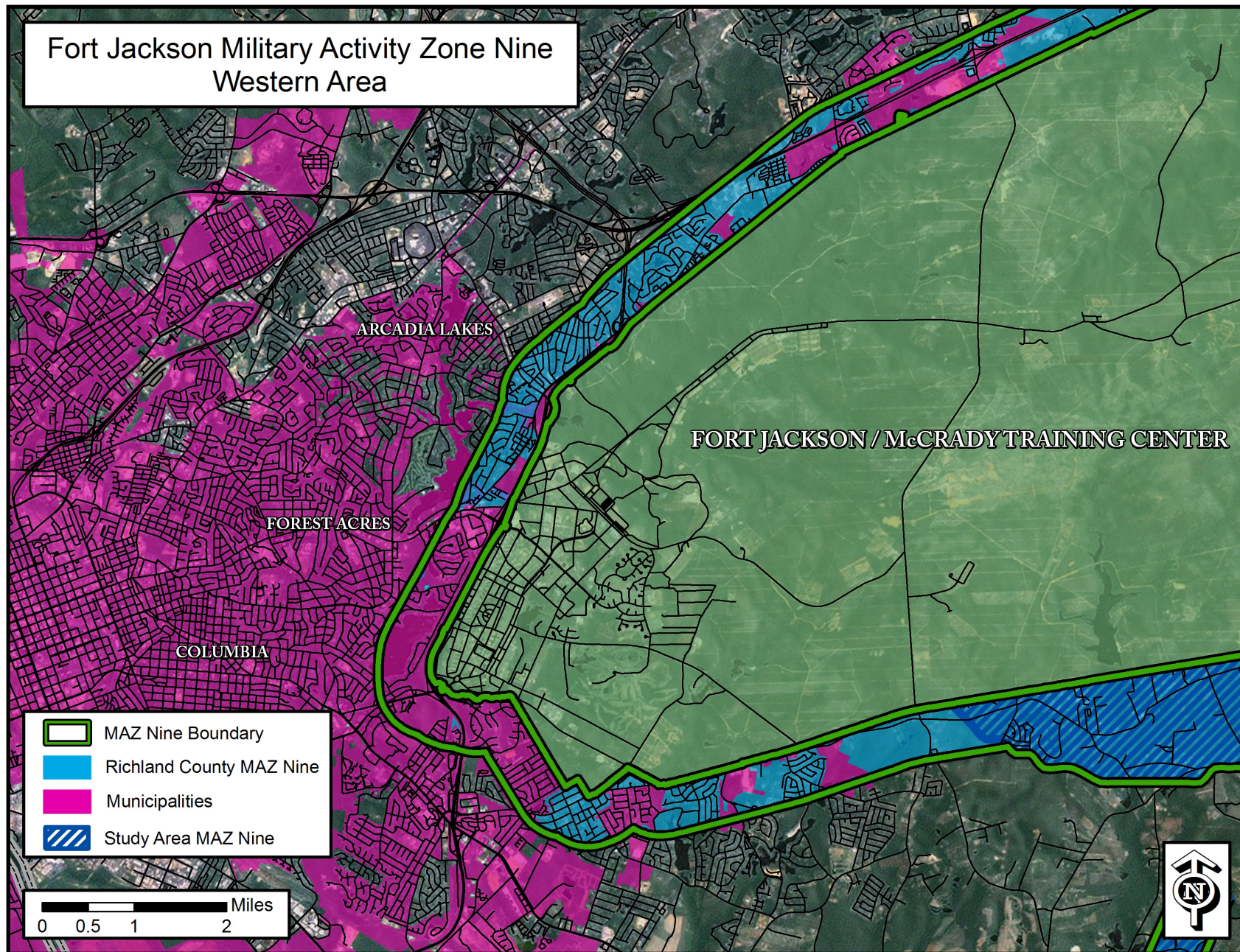
Third Reading:

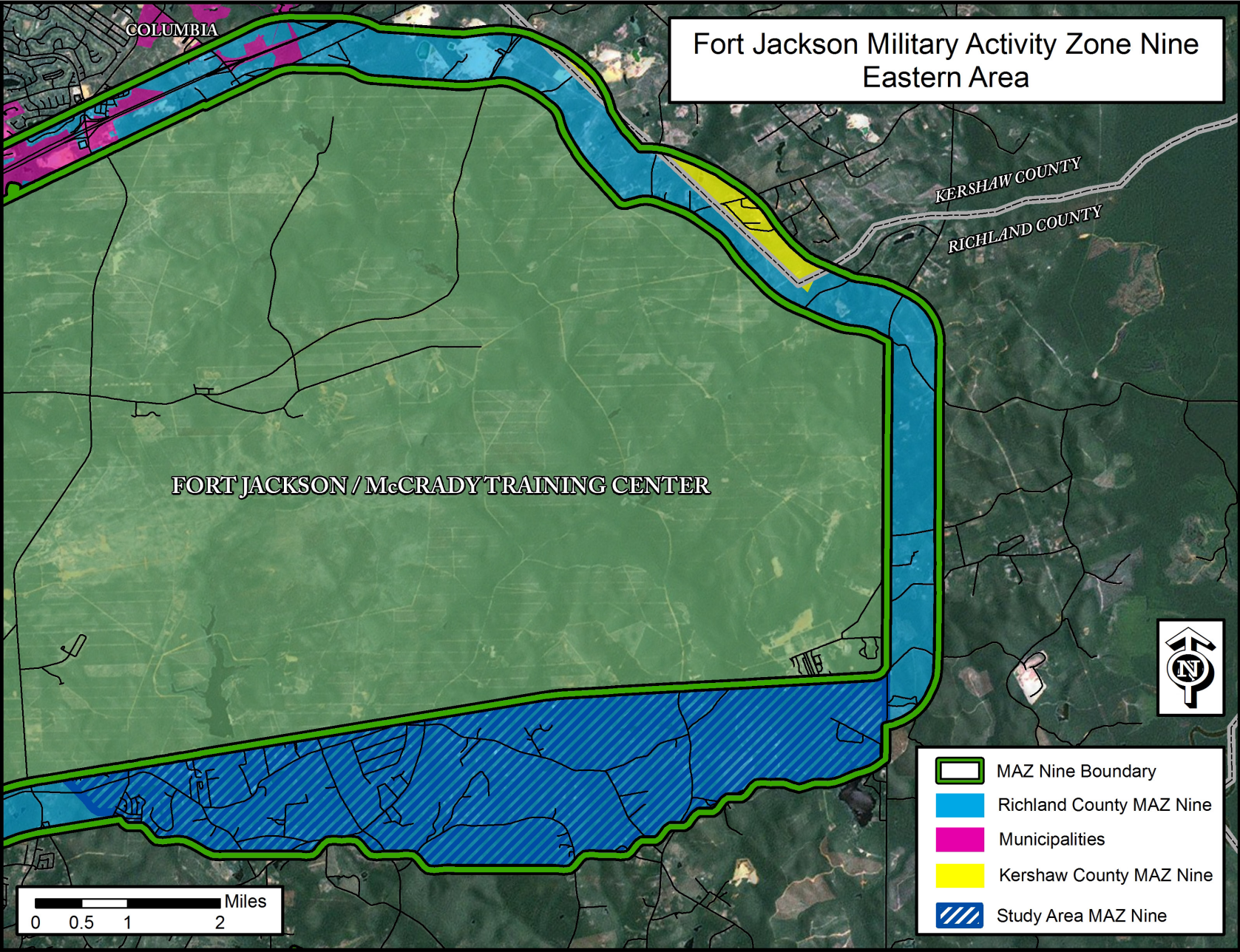


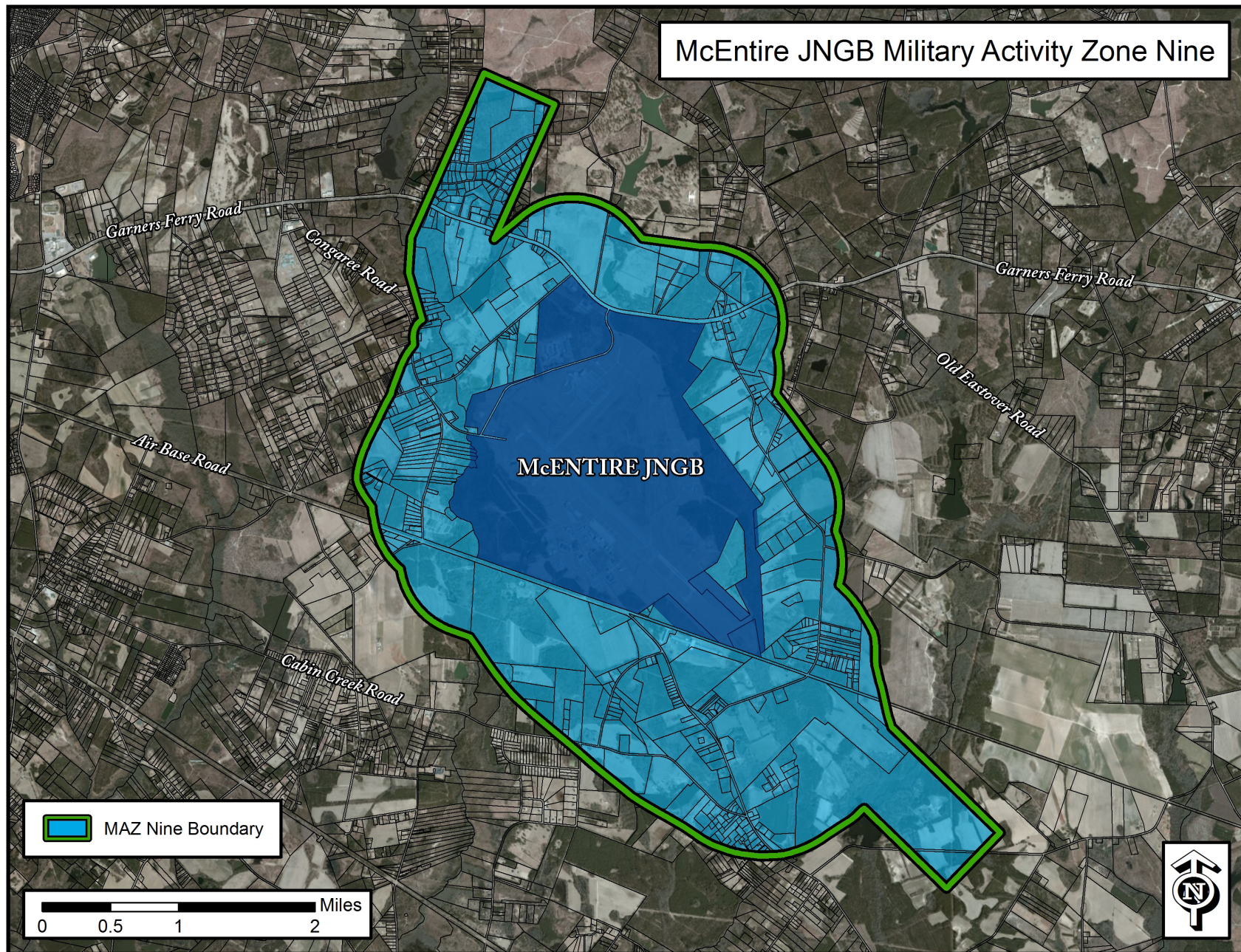
APPENDIX A MILITARY ACTIVITY ZONE MAPS

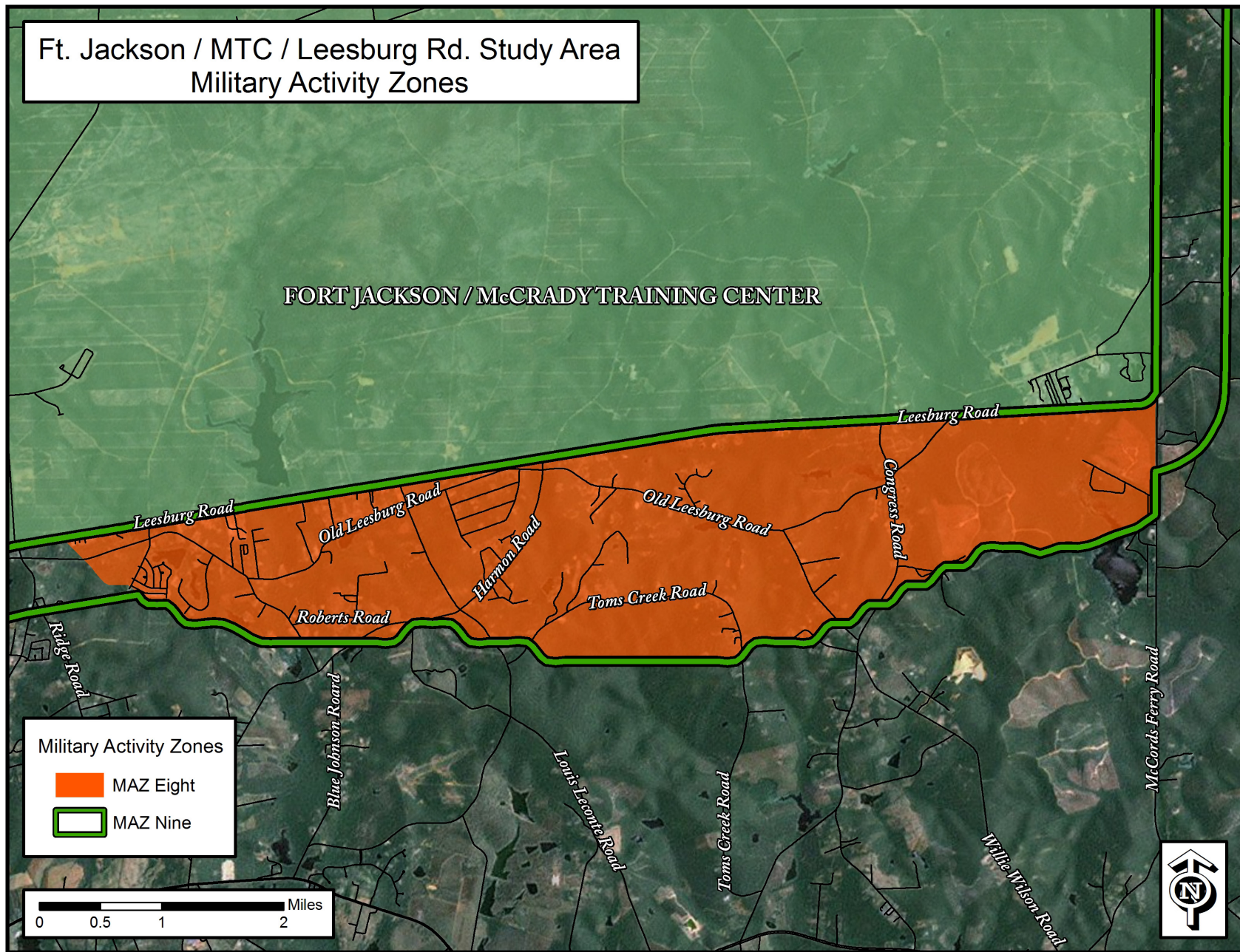


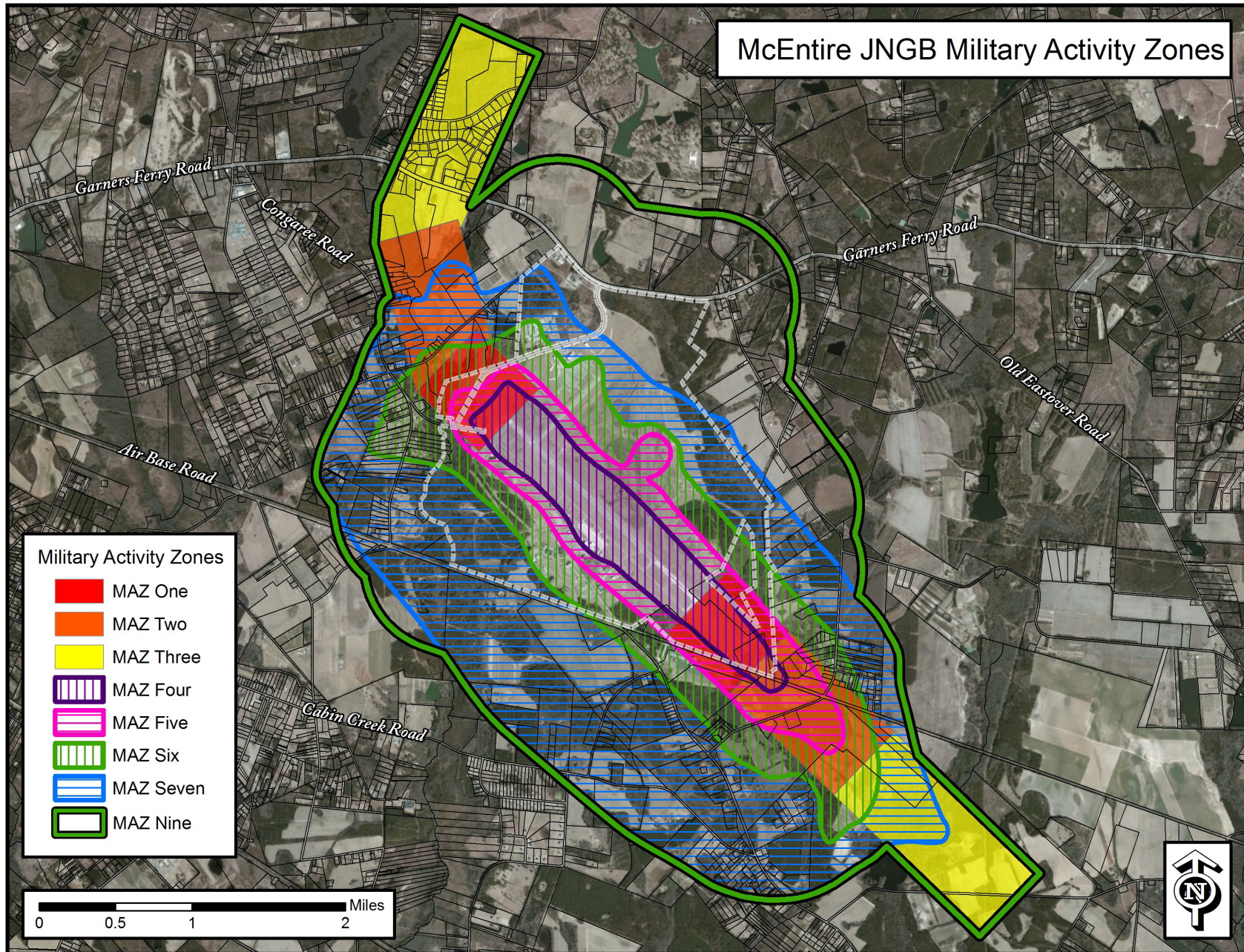












Joint Land Use Study Implementation



Fort Jackson-McCrary Training Center-McEntire Joint National Guard Base



APPENDIX B COMPATIBILITY STANDARDS



| USE TYPES | Military Activity Zones | | | | | | | |
|---|-------------------------|-------|-----------------|--------|------------------|------------------|------------------|------------|
| | CZ | APZ 1 | APZ 2 | 80+ dB | 75-79 dB | 70-74 dB | 65-69 dB | 115-130 dB |
| | MAZ 1 | MAZ 2 | MAZ 3 | MAZ 4 | MAZ 5 | MAZ 6 | MAZ 7 | MAZ 8 |
| Agricultural Uses | | | | | | | | |
| Animal Production | X | P | P | X | SR ¹⁰ | SR ¹⁰ | SR ¹⁰ | X |
| Animal Production Support Services | SR ⁵ | P | P | X | SR ¹⁰ | SR ¹⁰ | SR ¹⁰ | P |
| Crop Production | SR ⁵ | P | P | X | SR ¹⁰ | SR ¹⁰ | SR ¹⁰ | P |
| Crop Production Support Services | SR ⁵ | P | P | X | SR ¹⁰ | SR ¹⁰ | SR ¹⁰ | P |
| Fish Hatcheries | SR ⁵ | P | P | X | SR ¹⁰ | SR ¹⁰ | SR ¹⁰ | P |
| Forestry | SR ⁵ | P | P | X | SR ¹⁰ | SR ¹⁰ | SR ¹⁰ | P |
| Forestry Support Services | SR ⁵ | P | P | X | SR ¹⁰ | SR ¹⁰ | SR ¹⁰ | P |
| Poultry Farms | X | P | P | X | SR ¹⁰ | SR ¹⁰ | SR ¹⁰ | X |
| Produce Stands | X | P | P | X | SR ¹⁰ | SR ¹⁰ | SR ¹⁰ | P |
| Swine Farms | X | P | P | X | SR ¹⁰ | SR ¹⁰ | SR ¹⁰ | X |
| Veterinary Services (Livestock) | X | P | P | X | SR ⁴ | SR ⁴ | SR ⁴ | P |
| Residential Uses | | | | | | | | |
| Accessory Dwellings | X | X | X | X | X | SR ³ | SR ² | X |
| Common Area Recreation and Service Facilities | X | X | X | X | X | SR ³ | SR ² | X |
| Continued Care Retirement Communities | X | X | X | X | X | SR ³ | SR ² | X |
| Dormitories | X | X | X | X | X | SR ³ | SR ² | X |
| Dwellings, Conventional or Modular | | | | | | | | |
| Multi-Family, Not Otherwise Listed | X | X | X | X | X | SR ³ | SR ² | X |
| Single-Family, Detached | X | X | SR ¹ | X | X | SR ³ | SR ² | P |
| Single-Family, Zero Lot Line, Common | X | X | X | X | X | SR ³ | SR ² | P |



| USE TYPES | Military Activity Zones | | | | | | | |
|--|-------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | CZ | APZ 1 | APZ 2 | 80+ dB | 75-79 dB | 70-74 dB | 65-69 dB | 115-130 dB |
| | MAZ 1 | MAZ 2 | MAZ 3 | MAZ 4 | MAZ 5 | MAZ 6 | MAZ 7 | MAZ 8 |
| Single-Family, Zero Lot Line, Parallel | X | X | X | X | X | SR ³ | SR ² | P |
| Two-Family | X | X | X | X | X | SR ³ | SR ² | P |
| Dwellings, Manufactured Homes on Individual Lots | X | X | X | X | X | SR ³ | SR ² | P |
| Fraternity and Sorority Houses | X | X | X | X | X | SR ³ | SR ² | X |
| Group Homes (9 or Less) | X | X | X | X | X | SR ³ | SR ² | X |
| Group Homes (10 or More) | X | X | X | X | X | SR ³ | SR ² | X |
| Manufactured Home Parks | X | X | X | X | X | X | X | X |
| Rooming and Boarding Houses | X | X | X | X | X | SR ³ | SR ² | X |
| Special Congregate Facilities | X | X | X | X | X | SR ³ | SR ² | X |
| Accessory Uses and Structures | | | | | | | | |
| Accessory Uses and Structures (Customary) | SR ¹¹ | SR ¹¹ | SR ¹¹ | SR ¹¹ | SR ¹¹ | SR ¹¹ | SR ¹¹ | SR ¹¹ |
| Home Occupations | SR ¹¹ | SR ¹¹ | SR ¹¹ | SR ¹¹ | SR ¹¹ | SR ¹¹ | SR ¹¹ | SR ¹¹ |
| Swimming Pools | SR ¹¹ | SR ¹¹ | SR ¹¹ | SR ¹¹ | SR ¹¹ | SR ¹¹ | SR ¹¹ | SR ¹¹ |
| Yard Sales | SR ¹¹ | SR ¹¹ | SR ¹¹ | SR ¹¹ | SR ¹¹ | SR ¹¹ | SR ¹¹ | SR ¹¹ |
| Recreational Uses | | | | | | | | |
| Amusement or Water Parks, Fairgrounds | X | X | X | X | X | SR ³ | SR ² | X |
| Amusement Arcades | X | X | X | X | X | SR ³ | SR ² | X |
| Athletic Fields | X | X | X | X | X | SR ³ | SR ² | X |
| Batting Cages | X | X | X | X | X | SR ³ | SR ² | X |
| Billiard Parlors | X | X | X | X | SR ³ | SR ² | P | P |
| Bowling Centers | X | X | X | X | SR ³ | SR ² | P | P |



| USE TYPES | Military Activity Zones | | | | | | | |
|---|-------------------------|-----------------|-----------------|--------|-----------------|-----------------|-----------------|------------|
| | CZ | APZ 1 | APZ 2 | 80+ dB | 75-79 dB | 70-74 dB | 65-69 dB | 115-130 dB |
| | MAZ 1 | MAZ 2 | MAZ 3 | MAZ 4 | MAZ 5 | MAZ 6 | MAZ 7 | MAZ 8 |
| Clubs or Lodges | X | X | P | X | SR ³ | SR ² | P | X |
| Country Clubs with Golf Courses | X | X | P | X | SR ³ | SR ² | P | X |
| Dance Studios and Schools | X | X | X | X | SR ³ | SR ² | P | P |
| Go-Cart, Motorcycle and Similar Small Vehicle Track | X | X | X | X | X | SR ³ | SR ² | X |
| Golf Courses | X | SR ⁹ | P | X | SR ³ | SR ² | P | X |
| Golf Courses, Miniature | X | SR ⁹ | P | X | SR ³ | SR ² | P | X |
| Golf Driving Ranges (Freestanding) | X | SR ⁹ | P | X | SR ³ | SR ² | P | X |
| Hunt Clubs | X | X | X | X | X | P | P | X |
| Marinas and Boat Ramps | X | SR ⁹ | SR ⁹ | X | SR ⁴ | SR ⁴ | P | P |
| Martial Arts Instructional Schools | X | X | X | X | SR ³ | SR ² | P | P |
| Physical Fitness Centers | X | X | X | X | SR ³ | SR ² | P | P |
| Public or Private Parks | X | SR ⁹ | SR ⁹ | X | X | SR ⁴ | SR ⁴ | P |
| Public Recreation Facilities | X | SR ⁹ | SR ⁹ | X | X | SR ⁴ | SR ⁴ | P |
| Racetracks and Drag Strips | X | X | X | X | X | SR ³ | SR ² | X |
| Riding Stables | X | SR ⁹ | P | X | SR ³ | SR ² | P | X |
| Shooting Ranges, Indoor | X | X | P | X | SR ³ | SR ² | P | P |
| Shooting Ranges, Outdoor | X | X | X | X | X | X | X | X |
| Skating Rinks | X | X | P | X | SR ³ | SR ² | P | X |
| Swim and Tennis Clubs | X | X | P | X | SR ³ | SR ² | P | X |
| Institutional, Educational and Civic Uses | | | | | | | | |
| Ambulance Services, Emergency | X | X | P | X | SR ³ | SR ² | P | P |



| USE TYPES | Military Activity Zones | | | | | | | |
|--|-------------------------|-----------------|-----------------|--------|-----------------|-----------------|-----------------|------------|
| | CZ | APZ 1 | APZ 2 | 80+ dB | 75-79 dB | 70-74 dB | 65-69 dB | 115-130 dB |
| | MAZ 1 | MAZ 2 | MAZ 3 | MAZ 4 | MAZ 5 | MAZ 6 | MAZ 7 | MAZ 8 |
| Ambulance Services, Transport | X | X | P | X | SR ³ | SR ² | P | P |
| Animal Shelters | X | X | P | X | SR ³ | SR ² | P | P |
| Auditoriums, Coliseums, Stadiums | X | X | X | X | SR ³ | SR ² | P | P |
| Cemeteries, Mausoleums | X | SR ⁸ | SR ⁸ | X | SR ⁴ | SR ⁴ | P | P |
| Colleges and Universities | X | X | X | X | X | SR ³ | SR ² | X |
| Community Food Services | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Correctional Institutions | X | X | X | X | X | SR ³ | SR ² | X |
| Courts | X | X | X | X | X | SR ³ | SR ² | X |
| Day Care, Adult, Home Occupation (6 or Less) | X | X | X | X | X | SR ³ | SR ² | X |
| Day Care, Adult Centers | X | X | X | X | X | SR ³ | SR ² | X |
| Day Care, Child, Family Day Care, Home Occupation | X | X | X | X | X | SR ³ | SR ² | X |
| Day Care, Child, Group Day Care, Home Occupation | X | X | X | X | X | SR ³ | SR ² | X |
| Day Care, Child, Licensed Center | X | X | X | X | X | SR ³ | SR ² | X |
| Fire Stations | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Government Offices | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Hospitals | X | X | X | X | X | SR ³ | SR ² | X |
| Individual and Family Services, Not Otherwise Listed | X | X | X | X | X | SR ³ | SR ² | X |
| Libraries | X | X | X | X | X | SR ³ | SR ² | X |
| Museums and Galleries | X | X | X | X | X | SR ³ | SR ² | X |
| Nursing and Convalescent Homes | X | X | X | X | X | SR ³ | SR ² | X |
| Orphanages | X | X | X | X | X | SR ³ | SR ² | X |



| USE TYPES | Military Activity Zones | | | | | | | |
|--|-------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------|
| | CZ | APZ 1 | APZ 2 | 80+ dB | 75-79 dB | 70-74 dB | 65-69 dB | 115-130 dB |
| | MAZ 1 | MAZ 2 | MAZ 3 | MAZ 4 | MAZ 5 | MAZ 6 | MAZ 7 | MAZ 8 |
| Places of Worship | X | X | X | X | X | SR ³ | SR ² | A |
| Police Stations, Neighborhood | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Post Offices | X | X | P | X | SR ³ | SR ² | P | P |
| Postal Service Processing and Distribution | X | X | P | X | SR ³ | SR ² | P | P |
| Schools, Administrative Facilities | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Schools, Business, Computer and Management Training | X | X | X | X | X | SR ³ | SR ² | X |
| Schools, Fine Arts Instruction | X | X | X | X | X | SR ³ | SR ² | X |
| Schools, Junior Colleges | X | X | X | X | X | SR ³ | SR ² | X |
| Schools, Including Public and Private, Having a Curriculum | X | X | X | X | X | SR ³ | SR ² | X |
| Schools, Technical and Trade (Except Truck Driving) | X | X | X | X | X | SR ³ | SR ² | X |
| Schools, Truck Driving | X | X | X | X | X | SR ³ | SR ² | X |
| Zoos and Botanical Gardens | X | X | X | X | X | SR ³ | SR ² | X |
| Business, Professional and Personal Services | | | | | | | | |
| Accounting, Tax Preparation, Bookkeeping, and Payroll Services | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Advertising, Public Relations, and Related Agencies | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Automatic Teller Machines | X | P | P | P | P | P | P | P |
| Automobile Parking (Commercial) | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Automobile Rental or Leasing | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Automobile Towing, Not Including Storage | X | P | P | X | SR ³ | SR ² | P | P |
| Automobile Towing, Including Storage Services | X | P | P | X | SR ³ | SR ² | P | P |
| Banks, Finance, and Insurance Offices | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |



| USE TYPES | Military Activity Zones | | | | | | | |
|--|-------------------------|-----------------|-----------------|--------|-----------------|-----------------|-----------------|------------|
| | CZ | APZ 1 | APZ 2 | 80+ dB | 75-79 dB | 70-74 dB | 65-69 dB | 115-130 dB |
| | MAZ 1 | MAZ 2 | MAZ 3 | MAZ 4 | MAZ 5 | MAZ 6 | MAZ 7 | MAZ 8 |
| Barber Shops, Beauty Salons, and Related Services | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Bed and Breakfast Homes/Inns | X | X | X | X | SR ³ | SR ³ | SR ² | X |
| Building Maintenance Services, Not Otherwise Listed | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Car and Light Truck Washes (See also Truck Washes) | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Carpet and Upholstery Cleaning Services | X | SR ⁷ | P | X | SR ³ | SR ² | P | P |
| Clothing Alterations/Repairs; Footwear Repairs | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Computer Systems Design and Related Services | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Construction, Building, General Contracting, with Outside Storage | X | SR ⁷ | P | X | SR ³ | SR ² | P | P |
| Construction, Building, General Contracting, without Outside Storage | X | SR ⁷ | P | X | SR ³ | SR ² | P | P |
| Construction, Heavy, with Outside Storage | X | SR ⁷ | P | X | SR ³ | SR ² | P | P |
| Construction, Heavy, without Outside Storage | X | SR ⁷ | P | X | SR ³ | SR ² | P | P |
| Construction, Special Trades, with Outside Storage | X | SR ⁷ | P | X | SR ³ | SR ² | P | P |
| Construction, Special Trades, without Outside Storage | X | SR ⁷ | P | X | SR ³ | SR ² | P | P |
| Employment Services | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Engineering, Architectural, and Related Services | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Exterminating and Pest Control Services | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |
| Funeral Homes and Services | X | X | X | X | SR ³ | SR ³ | SR ² | P |
| Furniture Repair Shops and Upholstery | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |
| Hotels and Motels | X | X | X | X | SR ³ | SR ³ | SR ² | X |
| Janitorial Services | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Kennels | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |



| USE TYPES | Military Activity Zones | | | | | | | |
|---|-------------------------|-----------------|-----------------|--------|-----------------|-----------------|----------|------------|
| | CZ | APZ 1 | APZ 2 | 80+ dB | 75-79 dB | 70-74 dB | 65-69 dB | 115-130 dB |
| | MAZ 1 | MAZ 2 | MAZ 3 | MAZ 4 | MAZ 5 | MAZ 6 | MAZ 7 | MAZ 8 |
| Landscape and Horticultural Services | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |
| Laundromats, Coin Operated | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Laundry and Dry Cleaning Services, Non-Coin Opera | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Legal Services (Law Offices, Etc.) | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Linen and Uniform Supply | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Locksmith Shops | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |
| Management, Scientific, and Technical Consulting Se | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Massage Therapists | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |
| Medical/Health Care Offices | X | X | X | X | SR ³ | SR ² | P | X |
| Medical, Dental, or Related Laboratories | X | X | SR ⁷ | X | SR ³ | SR ² | P | X |
| Motion Picture Production/Sound Recording | X | X | SR ⁷ | X | SR ³ | SR ² | P | X |
| Office Administrative and Support Services, Not Othe | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Packaging and Labeling Services | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Pet Care Services (Excluding Veterinary Offices and | X | X | X | X | SR ³ | SR ² | P | X |
| Photocopying and Duplicating Services | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Photofinishing Laboratories | X | X | SR ⁷ | X | SR ³ | SR ² | P | X |
| Photography Studios | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |
| Picture Framing Shops | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Professional, Scientific, and Technical Services, Not | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Publishing Industries | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Real Estate and Leasing Offices | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |



| USE TYPES | Military Activity Zones | | | | | | | |
|--|-------------------------|-----------------|-----------------|--------|-----------------|-----------------|-----------------|------------|
| | CZ | APZ 1 | APZ 2 | 80+ dB | 75-79 dB | 70-74 dB | 65-69 dB | 115-130 dB |
| | MAZ 1 | MAZ 2 | MAZ 3 | MAZ 4 | MAZ 5 | MAZ 6 | MAZ 7 | MAZ 8 |
| Recreational Vehicle Parks and Recreation Camps | X | X | X | X | SR ³ | SR ³ | SR ² | X |
| Rental Centers, with Outside Storage | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |
| Rental Centers, without Outside Storage | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |
| Repair and Maintenance Services, Appliance and Ele | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |
| Repair and Maintenance Services, Automobile, Major | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |
| Repair and Maintenance Services, Automobile, Minor | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |
| Repair and Maintenance Services, Boat and Commercial | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |
| Repair and Maintenance Services, Boat and Commercial | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |
| Repair and Maintenance Services, Commercial and Industrial | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |
| Repair and Maintenance Services, Home and Garden | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |
| Repair and Maintenance Services, Personal and Household | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |
| Repair and Maintenance Services, Television, Radio, and | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |
| Research and Development Services | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Security and Related Services | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Septic Tank Services | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |
| Tanning Salons | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |
| Taxidermists | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |
| Theaters, Live Performances | X | X | X | X | SR ³ | SR ³ | SR ² | X |
| Theaters, Motion Picture, Drive-Ins | X | X | X | X | SR ³ | SR ³ | SR ² | X |
| Theaters, Motion Picture, Other Than Drive--Ins | X | X | X | X | SR ³ | SR ³ | SR ² | X |
| Tire Recapping | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |



| USE TYPES | Military Activity Zones | | | | | | | |
|---|-------------------------|-----------------|-----------------|--------|-----------------|-----------------|----------|------------|
| | CZ | APZ 1 | APZ 2 | 80+ dB | 75-79 dB | 70-74 dB | 65-69 dB | 115-130 dB |
| | MAZ 1 | MAZ 2 | MAZ 3 | MAZ 4 | MAZ 5 | MAZ 6 | MAZ 7 | MAZ 8 |
| Travel Agencies (without Tour Buses or Other Vehicle) | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Traveler Accommodations, Not Otherwise Listed | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Truck (Medium and Heavy) Washes | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |
| Vending Machine Operators | X | SR ⁷ | SR ⁷ | X | SR ³ | SR ² | P | P |
| Veterinary Services (Non-Livestock, May Include To | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Watch and Jewelry Repair Shops | X | X | P | X | SR ³ | SR ² | P | P |
| Weight Reducing Centers | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Retail Trade and Food Services | | | | | | | | |
| Antique Stores (See Also Used Merchandise Shops and | X | X | P | X | SR ³ | SR ² | P | P |
| Appliance Stores | X | X | P | X | SR ³ | SR ² | P | P |
| Art Dealers | X | X | P | X | SR ³ | SR ² | P | P |
| Arts and Crafts Supply Stores | X | X | P | X | SR ³ | SR ² | P | P |
| Auction Houses | X | X | P | X | SR ³ | SR ² | P | P |
| Automotive Parts and Accessories Stores | X | X | P | X | SR ³ | SR ² | P | P |
| Bakeries, Retail | X | X | P | X | SR ³ | SR ² | P | P |
| Bars and Other Drinking Places | X | X | X | X | SR ³ | SR ² | P | P |
| Bicycle Sales and Repair | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Boat and RV Dealers, New and Used | X | P | P | X | SR ³ | SR ² | P | P |
| Book, Periodical, and Music Stores | X | X | P | X | SR ³ | SR ² | P | P |
| Building Supply Sales with Outside Storage | X | P | P | X | SR ³ | SR ² | P | P |
| Building Supply Sales without Outside Storage | X | P | P | X | SR ³ | SR ² | P | P |



| USE TYPES | Military Activity Zones | | | | | | | |
|---|-------------------------|-------|-----------------|--------|-----------------|-----------------|----------|------------|
| | CZ | APZ 1 | APZ 2 | 80+ dB | 75-79 dB | 70-74 dB | 65-69 dB | 115-130 dB |
| | MAZ 1 | MAZ 2 | MAZ 3 | MAZ 4 | MAZ 5 | MAZ 6 | MAZ 7 | MAZ 8 |
| Camera and Photographic Sales and Service | X | X | P | X | SR ³ | SR ² | P | P |
| Candle Shops | X | X | P | X | SR ³ | SR ² | P | P |
| Candy Stores (Confectionery, Nuts, Etc.) | X | X | P | X | SR ³ | SR ² | P | P |
| Caterers, No On Site Consumption | X | P | P | X | SR ³ | SR ² | P | P |
| Clothing, Shoe, and Accessories Stores | X | X | P | X | SR ³ | SR ² | P | P |
| Coin, Stamp, or Similar Collectibles Shops | X | P | P | X | SR ³ | SR ² | P | P |
| Computer and Software Stores | X | X | P | X | SR ³ | SR ² | P | P |
| Convenience Stores (with Gasoline Pumps) | X | X | P | X | SR ³ | SR ² | P | P |
| Convenience Stores (without Gasoline Pumps) | X | P | P | X | SR ³ | SR ² | P | P |
| Cosmetics, Beauty Supplies, and Perfume Stores | X | X | P | X | SR ³ | SR ² | P | P |
| Department, Variety or General Merchandise Stores | X | X | X | X | SR ³ | SR ² | P | P |
| Direct Selling Establishments, Not Otherwise Listed | X | X | X | X | SR ³ | SR ² | P | P |
| Drugstores, Pharmacies, with Drive-Thru | X | X | X | X | SR ³ | SR ² | P | P |
| Drugstores, Pharmacies, without Drive-Thru | X | X | X | X | SR ³ | SR ² | P | P |
| Electronic Shopping and Mail Order Houses | X | X | P | X | SR ³ | SR ² | P | P |
| Fabric and Piece Goods Stores | X | X | SR ⁷ | X | SR ³ | SR ² | P | P |
| Flea Markets, Indoor | X | X | X | X | SR ³ | SR ² | P | P |
| Flea Markets, Outdoor | X | X | X | X | SR ³ | SR ² | P | P |
| Floor Covering Stores | X | X | P | X | SR ³ | SR ² | P | P |
| Florists | X | X | P | X | SR ³ | SR ² | P | P |
| Food Service Contractors | X | P | P | X | SR ³ | SR ² | P | P |



| USE TYPES | Military Activity Zones | | | | | | | |
|---|-------------------------|-------|-------|--------|-----------------|-----------------|----------|------------|
| | CZ | APZ 1 | APZ 2 | 80+ dB | 75-79 dB | 70-74 dB | 65-69 dB | 115-130 dB |
| | MAZ 1 | MAZ 2 | MAZ 3 | MAZ 4 | MAZ 5 | MAZ 6 | MAZ 7 | MAZ 8 |
| Food Stores, Specialty, Not Otherwise Listed | X | X | P | X | SR ³ | SR ² | P | P |
| Formal Wear and Costume Rental | X | X | P | X | SR ³ | SR ² | P | P |
| Fruit and Vegetable Markets | X | X | P | X | SR ³ | SR ² | P | P |
| Fuel Sales (Non- Automotive) | X | X | P | X | SR ³ | SR ² | P | P |
| Furniture and Home Furnishings | X | X | P | X | SR ³ | SR ² | P | P |
| Garden Centers, Farm Supplies, or Retail Nurseries | X | X | P | X | SR ³ | SR ² | P | P |
| Gift, Novelty, Souvenir, or Card Shops | X | X | P | X | SR ³ | SR ² | P | P |
| Grocery/Food Stores (Not Including Convenience Stores) | X | X | P | X | SR ³ | SR ² | P | P |
| Hardware Stores | X | X | P | X | SR ³ | SR ² | P | P |
| Health and Personal Care Stores, Not Otherwise Listed | X | P | P | X | SR ³ | SR ² | P | P |
| Hobby, Toy, and Game Stores | X | P | P | X | SR ³ | SR ² | P | P |
| Home Centers | X | X | X | X | SR ³ | SR ² | P | P |
| Home Furnishing Stores, Not Otherwise Listed | X | X | X | X | SR ³ | SR ² | P | P |
| Jewelry, Luggage, and Leather Goods (May Include Mail Order) | X | P | P | X | SR ³ | SR ² | P | P |
| Liquor Stores | X | X | P | X | SR ³ | SR ² | P | P |
| Manufactured Home Sales | X | P | P | X | SR ³ | SR ² | P | P |
| Meat Markets | X | P | P | X | SR ³ | SR ² | P | P |
| Miscellaneous Retail Sales – Where Not Listed Elsewhere | X | X | X | X | SR ³ | SR ² | P | P |
| Motor Vehicle Sales – Car and Truck – New and Used | X | P | P | X | SR ³ | SR ² | P | P |
| Motorcycle Dealers, New and Used | X | P | P | X | SR ³ | SR ² | P | P |
| Musical Instrument and Supplies Stores (May Include Mail Order) | X | P | P | X | SR ³ | SR ² | P | P |



| USE TYPES | Military Activity Zones | | | | | | | |
|---|-------------------------|-------|-------|--------|-----------------|-----------------|----------|------------|
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| | MAZ 1 | MAZ 2 | MAZ 3 | MAZ 4 | MAZ 5 | MAZ 6 | MAZ 7 | MAZ 8 |
| News Dealers and Newsstands | X | P | P | X | SR ³ | SR ² | P | P |
| Office Supplies and Stationery Stores | X | P | P | X | SR ³ | SR ² | P | P |
| Optical Goods Stores | X | P | P | X | SR ³ | SR ² | P | P |
| Outdoor Power Equipment Stores | X | P | P | X | SR ³ | SR ² | P | P |
| Paint, Wallpaper, and Window Treatment Sales | X | P | P | X | SR ³ | SR ² | P | P |
| Pawnshops | X | P | P | X | SR ³ | SR ² | P | P |
| Pet and Pet Supplies Stores | X | X | P | X | SR ³ | SR ² | P | P |
| Record, Video Tape, and Disc Stores | X | P | P | X | SR ³ | SR ² | P | P |
| Restaurants, Cafeterias | X | X | X | X | SR ³ | SR ² | P | P |
| Restaurants, Full Service (Dine-In Only) | X | X | X | X | SR ³ | SR ² | P | P |
| Restaurants, Limited Service (Delivery, Carry Out) | X | X | P | X | SR ³ | SR ² | P | P |
| Restaurants, Limited Service (Drive-Thru) | X | X | X | X | SR ³ | SR ² | P | P |
| Restaurants, Snack and Nonalcoholic Beverage Stores | X | X | X | X | SR ³ | SR ² | P | P |
| Service Stations, Gasoline | X | X | P | X | SR ³ | SR ² | P | P |
| Sporting Goods Stores | X | P | P | X | SR ³ | SR ² | P | P |
| Television, Radio or Electronic Sales | X | P | P | X | SR ³ | SR ² | P | P |
| Tire Sales | X | P | P | X | SR ³ | SR ² | P | P |
| Tobacco Stores | X | P | P | X | SR ³ | SR ² | P | P |
| Truck Stops | X | X | P | X | SR ³ | SR ² | P | P |
| Used Merchandise Stores | X | P | P | X | SR ³ | SR ² | P | P |
| Video Tape and Disc Rental | X | P | P | X | SR ³ | SR ² | P | P |



| USE TYPES | Military Activity Zones | | | | | | | |
|--|-------------------------|-----------------|-------|-----------------|-----------------|-----------------|----------|------------|
| | CZ | APZ 1 | APZ 2 | 80+ dB | 75-79 dB | 70-74 dB | 65-69 dB | 115-130 dB |
| | MAZ 1 | MAZ 2 | MAZ 3 | MAZ 4 | MAZ 5 | MAZ 6 | MAZ 7 | MAZ 8 |
| Warehouse Clubs and Superstores | X | X | X | X | SR ³ | SR ² | P | P |
| Wholesale Trade | | | | | | | | |
| Apparel, Piece Goods, and Notions | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Beer/Wine/Distilled Alcoholic Beverages | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Books, Periodicals, and Newspapers | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Chemicals and Allied Products | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Drugs and Druggists' Sundries | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Durable Goods, Not Otherwise Listed | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Electrical Goods | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Farm Products, Raw Materials | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Farm Supplies | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Flowers, Nursery Stock, and Florist Supplies | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Furniture and Home Furnishings | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Groceries and Related Products | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Hardware | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Jewelry, Watches, Precious Stones | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Lumber and Other Construction Materials | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Machinery, Equipment and Supplies | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Market Showrooms (Furniture, Apparel, Etc.) | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Metal and Minerals | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Motor Vehicles | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |



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|--|-------------------------|-----------------|-------|-----------------|-----------------|-----------------|----------|------------|
| | CZ | APZ 1 | APZ 2 | 80+ dB | 75-79 dB | 70-74 dB | 65-69 dB | 115-130 dB |
| | MAZ 1 | MAZ 2 | MAZ 3 | MAZ 4 | MAZ 5 | MAZ 6 | MAZ 7 | MAZ 8 |
| Motor Vehicles, New Parts and Supplies | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Motor Vehicles, Tires and Tubes | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Motor Vehicles, Used Parts and Supplies | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Nondurable Goods, Not Otherwise Listed | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Paints and Varnishes | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Paper and Paper Products | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Petroleum and Petroleum Products | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Plumbing and Heating Equipment and Supplies | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Professional and Commercial | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Equipment and Supplies | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Scrap and Recyclable Materials | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Sporting and Recreational Goods and Supplies (Except | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Sporting Firearms and Ammunition | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Timber and Timber Products | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Tobacco and Tobacco Products | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Toys and Hobby Goods and Supplies | X | SR ⁷ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Transportation, Information, Warehousing, Waste Management, and Utilities | | | | | | | | |
| Airports or Air Transportation Facilities and Support | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Antennas | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Bus Facilities, Interurban | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Bus Facilities, Urban | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |



| USE TYPES | Military Activity Zones | | | | | | | |
|--|-------------------------|-----------------|-------|-----------------|-----------------|-----------------|----------|------------|
| | CZ | APZ 1 | APZ 2 | 80+ dB | 75-79 dB | 70-74 dB | 65-69 dB | 115-130 dB |
| | MAZ 1 | MAZ 2 | MAZ 3 | MAZ 4 | MAZ 5 | MAZ 6 | MAZ 7 | MAZ 8 |
| Charter Bus Industry | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Courier Services, Central Facility | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Courier Services, Substations | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Landfills, Sanitary and Inert Dump Sites | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Limousine Services | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Materials Recovery Facilities (Recycling) | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Power Generation, Natural Gas Plants, and Similar Pr | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Radio and Television Broadcasting Facilities (Except | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Radio, Television, and Other Similar Transmitting To | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Rail Transportation and Support Facilities | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Recycling Collection Stations | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Remediation Services | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Scenic and Sightseeing Transportation | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Sewage Treatment Facilities, Private | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Taxi Service Terminals | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Truck Transportation Facilities | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Utility Company Offices | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Utility Lines and Related Appurtenances | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Utility Service Facilities (No Outside Storage) | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Utility Substations | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Warehouses (General Storage, Enclosed, Not Includin | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |



| USE TYPES | Military Activity Zones | | | | | | | |
|--|-------------------------|-----------------|-------|-----------------|-----------------|-----------------|----------|------------|
| | CZ | APZ 1 | APZ 2 | 80+ dB | 75-79 dB | 70-74 dB | 65-69 dB | 115-130 dB |
| | MAZ 1 | MAZ 2 | MAZ 3 | MAZ 4 | MAZ 5 | MAZ 6 | MAZ 7 | MAZ 8 |
| Warehouses, Self-Storage | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Waste Collection, Hazardous | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Waste Collection, Other | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Waste Collection, Solid, Non-hazardous | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Waste Treatment and Disposal, Hazardous | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Waste Treatment and Disposal, Non- Hazardous | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Water Treatment Plants, Non-Governmental, Public | SR ⁵ | SR ⁶ | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Manufacturing, Mining, and Industrial Uses | | | | | | | | |
| Animal Food | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Animal Slaughtering and Processing | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Apparel | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Bakeries, Manufacturing | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Beverage, Other Than Soft Drink and Water, and Tob | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Beverage, Soft Drink and Water | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Borrow Pits | X | X | X | X | X | X | X | X |
| Cement and Concrete Products | X | P | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Chemicals, Basic | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Chemical Products, Not Otherwise Listed | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Clay Products | X | P | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Computer, Appliance, and Electronic Products | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Dairy Products | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |



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|--|-------------------------|-------|-------|-----------------|-----------------|-----------------|----------|------------|
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| | MAZ 1 | MAZ 2 | MAZ 3 | MAZ 4 | MAZ 5 | MAZ 6 | MAZ 7 | MAZ 8 |
| Dolls, Toys, and Games | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Fabricated Metal Products | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Food Manufacturing, Not Otherwise Listed | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Furniture and Related Products | X | P | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Glass and Glass Products | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Jewelry and Silverware | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Leather and Allied Products (No Tanning) | X | P | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Leather and Hide Tanning and Finishing | X | P | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Lime and Gypsum Products | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Machinery | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Manufacturing, Not Otherwise Listed | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Medical Equipment and Supplies | X | P | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Mining/Extraction Industries | X | X | X | X | X | X | X | X |
| Office Supplies (Not Paper) | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Paint, Coating, and Adhesives | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Paper Products (Coating and Laminating) | X | P | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Paper Products (No Coating and Laminating) | X | P | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Petroleum and Coal Products Manufacturing | X | X | X | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Primary Metal Manufacturing | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Printing and Publishing | X | P | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Pulp, Paper, and Paperboard Mills | X | P | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |



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|---|-------------------------|-------|-------|-----------------|-----------------|-----------------|-----------------|------------|
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| | MAZ 1 | MAZ 2 | MAZ 3 | MAZ 4 | MAZ 5 | MAZ 6 | MAZ 7 | MAZ 8 |
| Rubber and Plastic Products | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Seafood Product Preparation and Packaging | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Signs | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Soap, Cleaning Compounds, and Toilet Preparations | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Sporting and Athletic Goods | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Textile Mills | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Textile Product Mills | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Transportation Equipment | X | X | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Wood Products, Chip Mills | X | P | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Wood Products, Excluding Chip Mills | X | P | P | SR ⁴ | SR ⁴ | SR ⁴ | P | P |
| Other Uses | | | | | | | | |
| Sexually Oriented Businesses | X | X | X | X | SR ³ | SR ² | P | P |
| Buildings, High Rise, 4 or 5 Stories | X | X | X | X | SR ³ | SR ² | SR ² | P |
| Buildings, High Rise, 6 or More Stories | X | X | X | X | SR ³ | SR ² | SR ² | P |

Footnotes:

1. Maximum density may not exceed one (1) dwelling unit per acre.
2. Development is conditioned on design and construction providing for an average minimum Noise Level Reduction (NLR) of average minimum twenty-five (25) dBA throughout the facility or dwelling. NLR criteria will not eliminate outdoor noise problems. However, building location and site planning, and design and use of berms and barriers can help mitigate outdoor exposure, particularly from near ground level sources.
3. Development is conditioned on design and construction providing for an average minimum Noise Level Reduction (NLR) of average minimum thirty (30) dBA throughout the facility or dwelling. NLR criteria will not eliminate outdoor noise problems. However, building location and site planning, and design and use of berms and barriers can help mitigate outdoor exposure, particularly from near ground level sources.
4. Development is conditioned on design and construction providing for an average minimum Noise Level Reduction (NLR) of average minimum twenty-five (25) dBA in the portions of these buildings where the public is received, office areas, noise-sensitive areas and land uses, employee lounge areas, or where the normal noise level is low.

(Continued on next page – Footnote numbers: 5 – 11.)



5. Underground facilities or utilities only, if approved by the McEntire coordinating official.
6. No passenger terminals or aboveground transmission lines.
7. Office uses that do not involve the regular reception of customers are allowed. Meeting places, auditoriums, and similar structures are prohibited.
8. Chapels are prohibited.
9. Clubhouses and other enclosed gathering places are prohibited.
10. Residential units are subject to the applicable requirements for the Residential categories above, including any applicable noise level reduction requirements.
11. Accessory uses and structures allowed only in association with principal uses otherwise permitted or permitted with special requirements by this section of the Code.



APPENDIX TWO EXAMPLE BYLAWS FOR REGIONAL COORDINATION COMMITTEE



Introduction

The following is an example set of bylaws for the recommended Regional Land Use Coordinating Committee.

BYLAWS FT. BRAGG/POPE AIR FORCE BASE REGIONAL LAND USE ADVISORY COMMISSION, INC.

ARTICLE 1 – TITLE

The title shall be the Fort Bragg/Pope Air Force Base Regional Land Use Advisory Commission, Inc. (RLUAC).

ARTICLE 2 – MISSION

The purposes and duties of the Fort Bragg/Pope Air Force Base Regional Land Use Advisory Commission are as follows:

1. To promote a regional perspective on land use and environmental issues of mutual concern to the adjacent local communities and the military installations.
2. To provide a forum for discussing noise and accident potential problems relating to land use and deliberate and develop mitigation actions.
3. To foster compatible land uses impacted by civilian and military areas.
4. To foster increased local economic development opportunities, particularly as they relate to the military.

ARTICLE 3 – ESTABLISHMENT

The Fort Bragg/Pope Air Force Base Regional Land Use Advisory Commission is established through the authority of N.C.G.S. Chapters 160A-460 through 464 and 55A et. al.

ARTICLE 4 – MEMBERSHIP

1. Composition: Fort Bragg/Pope Air Force Base Regional Land Use Advisory Commission membership is limited to Fort Bragg, Pope Air Force Base, and all municipal / county governments within Cumberland, Harnett, Hoke, Moore, Richmond, Robeson, Sampson, and Scotland Counties.



2. Each member county and municipality shall appoint one voting member. Member governments are encouraged to appoint an elected official to be their voting member. They may also appoint as many non-voting members as they deem appropriate. Fort Bragg and Pope Air Force Base may appoint as many non-voting members as they deem appropriate.
3. Voting and non-voting members shall be appointed by the Boards of Commissioners from the Cities and Counties they represent. Military members/representatives shall be appointed by the Commanding Officer(s) from the military installations which they represent.
4. Voting and non-voting members should have a basic knowledge of the Fort Bragg/Pope Air Force Base region's physical, environmental, social, and economic makeup. In addition, a basic understanding of the planning process and land use planning, in particular, is recommended.
5. Terms of Voting and Non-Voting Members:
 - a. The length of term for a voting member shall be three (3) years. Non-voting members serve at the will of the appointing body and have no specified terms.
 - b. Voting members may be reappointed to successive terms.

ARTICLE 5 – MEETINGS

1. Meetings – Meetings will be held quarterly throughout

the year, generally on the third Thursday of February, May, August, and November.

3. Attendance – Attendance is mandatory. If an appointee is absent from more than two (2) consecutive meetings or three (3) in a calendar year, and such absences are not caused by extraordinary events, the member is obligated to resign in writing.
4. Public – All regular and special meetings, hearings, records, and accounts of the Commission shall be open to the public.
5. Special Meetings – Special meetings shall be called at the request of the Chairman or a majority of members of the Commission. The Chairman may designate in advance regular or special meetings for the presentation of reports on the comprehensive plan, or on general planning discussions, deferring hearings and petitions to subsequent meetings.
6. Prayer – All Commissions meetings may be opened with prayer.
7. Written Material – All written material used for consideration in Commission meetings become part of the official records of that meeting and are to be kept on file in the office of the Executive Director.

ARTICLE 6 – OFFICERS/DUTIES

1. Chairman – The Chairman shall preside at all meetings, appoint members to committees, and perform such other duties as may be ordered by the Commission.



2. Vice-Chairman – The Vice-Chairman shall act in the capacity of the Chairman in his absence.
3. Secretary – The Secretary shall keep the minutes, execute such documents as authorized by the Commission, in the name of the Commission, and perform such other duties as the Commission shall determine or direct.
4. Executive Director – The position of Executive Director may be authorized by the Board of Directors and appointed or discharged by a vote of the Fort Bragg / Pope Air Force Base Regional Land Use Advisory Commission (RLUAC) membership. The employment of the Executive Director shall be an at-will employment. The responsibilities and job requirements of the Executive Director shall be as follows:

Responsibilities

- Make the logistical arrangements for and participate in RLUAC quarterly meetings (4 each year).
- Make the logistical arrangements for quarterly Board of Directors meetings (4 each year). He /she shall offer suggestions for topics and speakers for the RLUAC quarterly meetings.
- Serve as the “point of contact” / primary liaison for RLUAC information and public relations.
- Represent the RLUAC at public hearings, meetings, and conferences as directed by the Board of Directors.
- Contact and confirm speakers for the RLUAC quarterly meetings.

- Prepare agendas for RLUAC quarterly meetings and Board of Directors’ meetings (8 each year).
- Oversee the preparation of minutes for RLUAC quarterly and Board of Directors’ meetings (8 each year).
- Coordinate the mailing of minutes and meeting notices (by U.S. mail and e-mail) for RLUAC quarterly meetings and Board of Directors’ meetings (8 each year).
- Oversee the maintenance of accurate and up-to-date membership rolls and attendance records.
- Maintain current information regarding regional, state, and national legislative issues of interest.
- Complete various other tasks as assigned by the Board of Directors.
- Fund Raising - Coordinate efforts to raise funding to support RLUAC operations.
 - Prepare and submit grant proposals to appropriate corporations and foundations.
 - Prepare and mail fund raising letters to potential financial supporters.
 - Make presentations to potential funding entities as opportunities arise.
- Incorporation – Facilitate the process of incorporating the RLUAC and securing tax exempt designation with the State of North Carolina and the federal government.



Job Requirements

A Master's Degree in Planning or Public Administration curriculum and three years planning and management experience, which includes one year in a supervisory capacity; or a College Degree and five years of specifically related planning and management experience, including one year in a supervisory capacity; or an equivalent combination of education and experience.

The Executive Director job description may be amended by the Board of Directors.

ARTICLE 7 – BOARD OF DIRECTORS

1. The Board of Directors shall act as the Executive Committee and shall be elected from the membership for two year terms.
2. Composition
 - a. The Chairman, Vice Chairman, Secretary, one representative selected from each of the County delegations, and a representative from each of the military installations shall constitute the Board of Directors.
 - b. Non-voting members may be named to the Board of Directors by the officers as they deem necessary.
3. Meetings of the Executive Committee shall be called as necessary by the Chairman or Vice Chairman to plan agendas for the Advisory Commission and to provide decisions on matters of importance when it is impractical to convene a special meeting of the full Advisory Commission.

4. Meetings of the Board of Directors shall be open to the public.
5. A quorum must be present for the Board of Directors to vote. A quorum consists of a majority of the current membership.

ARTICLE 8 – ELECTIONS

1. The Chairman shall be elected at the first regular meeting in each odd numbered year. Terms of office shall be for two years beginning in the year 2007. The Commission shall elect the Chairman from its membership.
2. The Vice-Chairman shall be elected at the first regular meeting in each odd numbered year. Terms of office shall be for two years. The Commission shall elect the Vice-Chairman from its membership.
3. The Secretary shall be elected at the first regular meeting in each odd numbered year. Terms of office shall be for two years. The Secretary is not required to be a member of the Commission.

ARTICLE 9 – VOTING

1. Action – Transaction of business and the taking of official action shall require a concurring vote of a majority of the voting members of the Commission present at the meeting.
2. Motions – Motions shall be restated by the Chairman before a vote is taken. The name of the maker of the motion and that of the second shall be recorded.
3. Voting – Voting shall be by voice or by show of hands. In the



event that a vote is not unanimous, the minutes shall show the names of how each voted on each issue.

4. Abstaining – When a Commission member wishes to abstain from consideration on any issue, he or she shall make a formal request to the Chairman, prior to action by the Commission. Notification of a request for abstention should be made as soon as the member is aware of such a possibility. At the meeting, the Chairman shall ask if there is any opposition to the request. Abstention will be allowed only with a consenting vote of a majority of the Commission present.
5. When a voting member of the Commission is unable to attend a meeting, he or she may assign their voting authority to another RLUAC non-voting member designated by that voting member in writing to the Corporation.

ARTICLE 10 – REMUNERATION

Members of the Commission may be reimbursed for their expenses by their appointing body in accordance with that body's policies and procedures.

ARTICLE 11 – AMENDMENTS

1. These Bylaws may be amended by an affirmative vote of two-thirds of all voting members present, provided all amendments conform to established policies and law.
2. Two-thirds of the appointing bodies must approve the Bylaws and all changes. Two-thirds of the appointing bodies can amend or revise the Bylaws without approval of the Commission.

ARTICLE 12 – DISSOLUTION

Two-thirds of the appointing bodies, as appointing authority, can reorganize or dissolve the Commission without advance notice.

ARTICLE 13 – RULES

Robert's Rules of Order Revised shall govern meetings, unless modified by the voting members.

ARTICLE 14 – REPORTS

Minutes of meetings shall be provided in advance of the next regular meeting. Copies of the minutes of all meetings shall also be mailed to the appointing authority.

Adopted this ____th day of _____, 20__.

Chair



Joint Land Use Study Implementation



Fort Jackson-McCrary Training Center-McEntire Joint National Guard Base





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