

MINING, DRILLING & QUARRY REGULATIONS

A REPORT FOR:

THE RUTHERFORD COUNTY REGIONAL PLANNING
COMMISSION

FEBRUARY 11, 2019

PREPARED BY:

THE RUTHERFORD COUNTY PLANNING AND ENGINEERING
DEPARTMENT

PURPOSE OF REPORT

Staff periodically reviews regulations within the Zoning Ordinance to determine whether changes are warranted. There are several factors that can lead to changes in zoning regulations, including, but not limited to, changes to State or local laws or a changing development environment. Staff has also received some concerns regarding the current setbacks required for quarrying activities; particularly, setbacks from residentially zoned property. This report will discuss Rutherford County's current mining/quarrying regulations, the results of Staff's research into other communities' regulations, as well as items for the Planning Commission to consider.

OVERVIEW OF CURRENT REGULATIONS

Permitted Zones and Process for Approval

Mining, Drilling and Quarrying operations are classified as Industrial Activities in the Rutherford County Zoning Ordinance. Section 207 C. defines these activities as follows:

[Mining, Drilling, and Quarrying] Includes operations and facilities either utilized by, or in support of the extraction of minerals, ores, petroleum, and natural gas or in the quarrying and collection of stone, gravel, sand, clay, and other non-metallic minerals (i.e. phosphate rock). Examples include but are not limited to:

Clay, Ceramic, and Refractory Minerals
Sand and Gravel Quarrying
Stone Quarrying

The Land Use and Activity Table (Appendix B) of the Zoning Ordinance allows Mining, Drilling, and Quarrying activities by special exception (SE) within two zones: Agricultural Residential (AR) and Heavy Industrial (HI). Since these activities are only allowed by SE in these zones, Board of Zoning Appeals (BZA) action is required for property in these districts once the proper zoning is obtained. When these regulations were created, Staff's rationale to allowing these activities in the AR zone had to do with the limited number of uses allowed in that zone. Staff would rather see a large area of AR zoning as opposed to HI zoning, especially in the more rural areas of the County.

Setbacks

Rutherford County's current regulations regarding setbacks for Mining, Drilling and Quarrying operations are found in Section 1408 G.1.b.v.(2) and are listed below:

At the time of application for a special exception, no excavation area or quarry wall shall be located within:

- One mile to the property line of any existing Community Education Activity;
- 1,500 feet to the property line of any existing Community Assembly Activity, existing Health Care Activity, or existing residentially zoned property, including residential portions of approved planned developments;
- 1,000 feet from any properties zoned in the Office and Institutional Districts, Commercial Districts or Special Character Districts; and
- 300 feet from any properties zoned in the Industrial Districts, public roads and rights-of-way.

Nothing shall be stored at any time within 200 feet from any property line, with the exception of parking, fencing, offices, and weight scales, which shall be subject to all other requirements of this Ordinance.

It's important to recognize that these measurements are taken from the property line to the excavation areas or quarry wall. The only measurement that does not is the 200-foot storage setback requirement.

Landscaping, Buffering and Screening

Section 1104 of the Zoning Ordinance provides landscaping and buffering requirements for non-residential uses in Rutherford County. Although properties zoned AR are listed as having No Impact according to the Impact Classification for buffering, the BZA has the power to add an appropriate buffer yard type to any use approved by special exception.

Along with the requirements found in Section 1104, Section 1408 G.1.b.v.(6) of the Zoning Ordinance provides additional requirements for Mining, Drilling, and Quarrying activities. These regulations state:

In addition to complying with the landscaping regulations found in Chapter 11, natural vegetation shall be preserved to the extent possible in the setback area

established above. The frontage of the site along a public road shall be screened with a berm of sufficient height to restrict the view of the operations from the road by a traveling motorist and shall be planted with ground cover, trees, and shrubs.

These landscaping and screening requirements would be verified through a landscape plan, consistent with County regulations.

OTHER REGULATIONS

The Zoning Ordinance regulates several other aspects of Mining, Drilling, and Quarrying operations, such as:

- Requirements for a general area plan;
- Requirements for a specific site plan;
- Reclamation plan;
- Performance criteria, including grading, access, operations, etc.

REGULATIONS FROM OTHER COMMUNITIES

Staff reviewed quarry zoning regulations adopted by other jurisdictions throughout the United States, which included the following locations:

- Anderson County, Tennessee
- Township of Batavia, Ohio
- City of Charlotte, North Carolina
- Clackamas County, Oregon
- Guilford County, North Carolina
- Knox County, Tennessee
- City of Shelby, North Carolina
- Town of Smyrna, Tennessee
- Williamson County, Tennessee

Rather than focusing on setbacks alone, Staff expanded its review to identify additional approaches that local governments use to regulate quarry operations. The results can be found in the Table in Appendix A. A synopsis of the findings can be found in the next section.

Permitted Zones and Process for Approval

Most of the jurisdictions Staff reviewed limited quarry operations to industrial zoned districts, while several governments, such as Clackamas County, Oregon, Fairfield Township, Ohio, and Williamson County, Tennessee allows quarries in agricultural/residential districts subject to conditional use, or special exception/use, approval. Only Anderson County, South Carolina, allowed the use by-right in their Heavy Industrial Zone.

Setbacks and Minimum Area Required

The Table in Appendix A shows that there is diversity among the jurisdictions in both setbacks and minimum required area. Three of the jurisdictions require a minimum acreage for quarry operations. The cities of Shelby and Charlotte, North Carolina and Williamson County, Tennessee have minimum acreage requirements that range from 20-100 acres. These minimum acreage requirements are supplemented by minimum setback distances from adjacent properties. Both Shelby and Charlotte have setback requirements for specific quarry activities such as excavation, rock crushing and blasting. Williamson County has proposed quarries to have at least 20 acres in area, a minimum 200-foot setback for all structures and activities from all property lines and, except for parking, fencing, and office areas, 1,000 feet from residentially zoned property.

Rutherford County's Zoning Ordinance does not establish a minimum acreage for quarry operations. Setback requirements are discussed earlier in this report.

Required Screening

Except for Anderson County, Tennessee, each of the jurisdictions Staff reviewed regulates the screening of quarry operations. Screening measures can include a combination of fencing, existing vegetation, and new landscape material. Half of the jurisdictions we studied required security fencing ranging from six to eight feet in height. In some of the cases landscaping, either planted or use of existing vegetation, supplemented the requirement for fencing. The cities of Charlotte and Shelby, North Carolina require that all existing vegetation remain within a 100-foot exterior perimeter of the quarry site. If inadequate vegetation exists to screen the quarry site, Charlotte defers to its buffering requirements contained in its landscaping provisions.

Staff also found that the screening requirements varied depending upon adjacent uses, with adjacent residential uses requiring increased screening measures. If a quarry operation were established in Rutherford County under our current zoning regulations, a property zoned HI would be required to provide a Type 3 landscape buffer (described in Section 1104 E. Landscaping, Screening and Buffering) along the common property lines of residentially zoned

properties and uses. AR-zoned properties would not require a buffer, but the BZA would have the ability to require an appropriate buffer yard.

Landscape buffer requirements are reduced for the level of impact the quarry would have upon the adjacent land uses. For example, if the quarry is adjacent to a use/zone that is also considered to have high impact, no buffer requirements are prescribed.

Issues for Consideration

Setbacks

To assist Commissioners in determining the effects of various setback scenarios, Staff has produced a map that can be found in Appendix B. The map depicts scenarios using varied setbacks, as applied to a 630-acre tract within Rutherford County. The setbacks applied are from residentially zoned property and include the following measurements: 1,500 feet (current regulations), 1,000 feet, 750 feet, 500 feet, and 0 feet (no setback requirement). The quarry-able areas (usable acres) can be seen on the map and on the chart below:

| <u>Setback Distance (Feet)</u> | <u>Usable Acres</u> | <u>Unusable Acres</u> |
|--------------------------------|---------------------|-----------------------|
| 1,500 | 59.7 | 569.37 |
| 1,000 | 199.17 | 429.9 |
| 750 | 287.94 | 341.13 |
| 500 | 390.62 | 238.45 |
| 0 (No requirement) | 629.07 | 0 |

Permitted Zones and Approval Process

The County's current regulations allow quarry operations in the AR and HI zones by special exception. This requires the applicant to apply for a rezoning request, should the property not be zoned one of these two districts. If the Board of Commissioners approves the request, the applicant must apply for special exception approval from the Board of Zoning Appeals. If this request is approved, site plan review and approval through the Planning Commission is the next step. Once the site plan is approved, the applicant would be required to obtain all necessary permits to begin operation.

Required Screening

While not the primary focus of this report, screening and buffering regulations were included with this report to show the Planning Commission how other jurisdictions handle this issue.

Conclusions and Recommendations

This report is for informational purposes. After reviewing the County's current regulations, and those from other jurisdictions, Staff believes that the permitted zones (i.e. AR and HI) and process (i.e. Rezoning and Special Exception) are sufficient and should not be changed. Staff also believes our existing buffering/screening regulations are sufficient for any future quarry applications. Staff would like direction as to how the Planning Commission would like to proceed on any possible changes to the setbacks for quarrying activities.

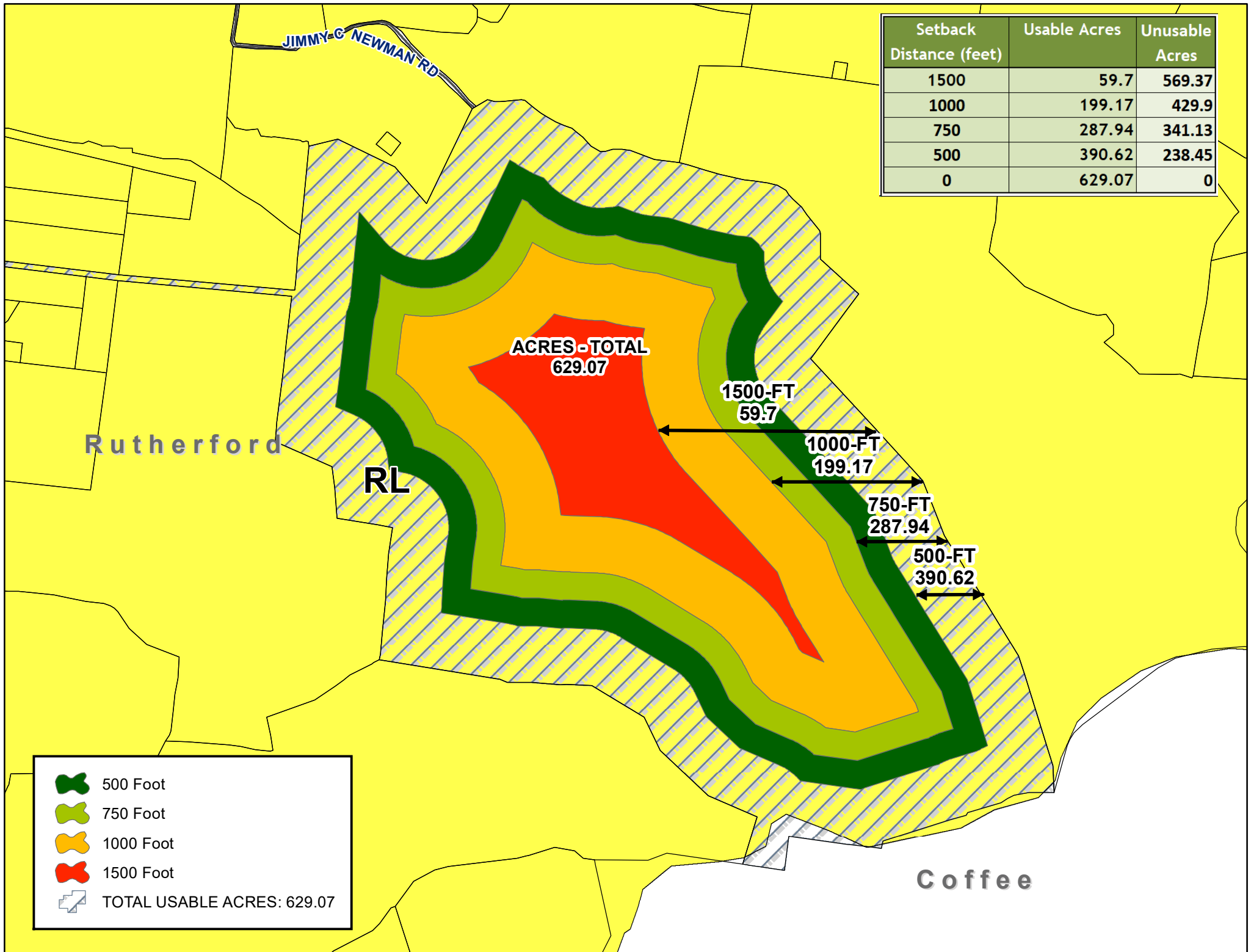
APPENDIX A






| Location | Zones Permitted | Type Approval Required | Minimum Size | Setbacks | Type of Screening Required |
|-----------------------|---|--|--------------|---|--|
| Rutherford County | Agricultural Residential (AR) and Heavy Industrial (HI) | Special Exception | None | No excavation, quarry wall, or storage area shall be located within than 1 mile from a school, or 1,500 feet from streets, community assemblies, or residentially zoned property. 1,000 feet from any properties in the Office and Institutional, Commercial or Special Character Districts 300 feet from any properties zoned in the Industrial Districts, public roads and rights-of-way | Buffering requirements vary based on the use of the adjacent property. In addition, existing vegetation must remain undisturbed and the frontage of the site along a public road shall be screened with a berm of sufficient height to restrict the view of the operations from the road |
| Smyrna, TN | I-3 | Special Exception | None | Shall be 2 miles from residentially zoned property, church or school measured from property lines. Quarry shall be no closer than 3 miles from another mining/quarry operation measured from property lines. Also, quarry shall measure a minimum of 1,500 feet from a public right of way. | Fencing shall be provided along all open excavations. |
| Anderson County, TN | Heavy Industrial (I-2) | By right | None | Only those required in each district for principal and accessory uses. | None Specified |
| Knox County, TN | Agricultural (A), Business and Manufacturing (CB), and Industrial (I) | CUP to be approved by the Planning Commission and Board of Commissioners in the A and CB zones. Permitted by right in the I zone. | None | In Industrial zone excavation areas shall be at least 100 feet from any residential, agricultural or commercial zone and at least 200 feet from any dwelling or platted subdivisions. Overburden, spoilbank, etc. must be at least 100 feet of any such property lines unless written consent is provided by adjacent property owners. In non-industrial zones , quarrying shall not be located nearer than 300 feet to a public park, school, church, hospital, sanitarium, or residential zone; Excavation areas must be at least 100 feet from any existing or platted street, highway, etc., and buildings containing power driven or power producing machinery or equipment shall be at least 500 feet from all adjacent property zoned residential, commercial, or agricultural and at least 200 feet from existing or proposed rights-of-way. | The Planning Commission may require a landscape screen or fence for any property used for excavation activities that is within 100 feet of any residential zone or platted subdivision. |
| Williamson County, TN | Rural Preservation (RP-5) Rural Development (RD-5) 840 Center District (840C) | Special Use approval by the Board of Zoning Appeals. | 20 acres | All activities and structures shall be a minimum 200-foot setback from all property lines and 1,000-foot from all residentially zoned property except for parking, fencing and offices | Buffering requirements vary based on the use of the adjacent property. |
| Batavia Township, OH | I-Industrial (I) and Major Industrial (M-I) | CUP approval by the Board of Zoning Appeals. | None | No part of a quarrying, mining operation or gravel pit shall be closer than 500 feet to any property line, road, street, residence district, residence, educational institution, religious place of worship or institution for human care. | Must erect a security fence of at least 8 feet in height around the entire area and such fence shall be buffered from public view as per the requirements of Article 9, Buffering and Landscaping. |
| Guilford County, NC | Heavy Industrial (HI) | Special Use approval by the Board of Zoning Appeals. | None | Edges of pit and any equipment used in the processing of rock and gravel, any asphalt plant, or other industrial uses must be 50 feet from any property line except when next to railroad ROW used for operation | A security fence of at least 6 feet in height and landscaping depending on adjacent use (residential – all 50 feet would be full of vegetation) |

| | | | | | |
|---|---|---|-----------|---|--|
| Shelby, NC | General Industrial (GI) | CUP approval by the Board of Zoning Appeals. | 50 acres | Varies – areas adjacent to residential property must be 600 feet to building or extraction area, 700 feet to any crushing of rock or processing, and 1,000 feet to any blasting (distances slightly reduced for adjacent commercial/ industrial uses) | Security fence and all existing vegetation to remain undisturbed and planted buffer shall be provided for the exterior 100 feet of the required separation adjacent to the exterior property |
| Clackamas County, OR | Residential, Natural Resource, and Industrial Districts | CUP approval by Administrative Hearing subject to public notice/hearing process and decision made by a paid Hearings Officer. | None | No specific distance identified, however, excavation shall be away from the property line a distance adequate to maintain a fence on the property line and such additional distance as is necessary to allow a normal safe angle of repose during operations, assure lateral support of adjacent property, and provide the slopes identified in the reclamation plan for the depth of final excavation. | Screening of may be accomplished by one or more of the following: <ol style="list-style-type: none"> 1. A sight-obscuring fence or wall; 2. A landscaped berm or preservation of natural slope; 3. Use of native vegetation, or plants and trees with demonstrated ability to thrive under the anticipated conditions. |
| Fairfield Township, Columbiana County, OH | Agricultural-Residential District (AR-1) | CUP approval by the Board of Zoning Appeals. | None | Excavation activities shall not be conducted closer to any dwelling than 650 feet; 100 feet from any property line of property not owned by the applicant; and 150 feet to a public right-of-way. | The area being excavated shall be enclosed by a 6-foot fence adequate to prevent trespass and placed no closer than fifty feet to the top or bottom of any slope. |
| Charlotte, NC | General Industrial (I-2) | Engineering and Property Management (Requires public notice, public forum) | 100 acres | Varies – areas adjacent to residential property must be 200 feet to building or extraction area, 300 feet to any crushing of rock or processing, and 500 feet to any blasting (distances slightly reduced for adjacent commercial/ industrial uses) | All existing trees and vegetation are to remain in an undisturbed condition. Where the natural growth is inadequate to materially screen the quarry site from the view of adjoining properties and from a public street, vegetation will be provided according to Class A buffer requirements. When the site is adjoining residentially zoned property, the exterior 100 feet of the 200-foot separation must contain vegetation equivalent to a Class A buffer adjacent to the exterior property. When adjacent to any nonresidential zoning district, a 50-foot Class A buffer will be provided at the exterior property lines. |

APPENDIX B

| Setback Distance (feet) | Usable Acres | Unusable Acres |
|-------------------------|--------------|----------------|
| 1500 | 59.7 | 569.37 |
| 1000 | 199.17 | 429.9 |
| 750 | 287.94 | 341.13 |
| 500 | 390.62 | 238.45 |
| 0 | 629.07 | 0 |



| | |
|---|----------------------------|
|  | 500 Foot |
|  | 750 Foot |
|  | 1000 Foot |
|  | 1500 Foot |
|  | TOTAL USABLE ACRES: 629.07 |