

**ASSESSMENT OF THE AVAILABILITY AND DEMAND FOR INDUSTRIAL ZONED PROPERTY
IN ALBEMARLE COUNTY**

JANUARY 11, 2010

INTRODUCTION

The Economic Development Policy in the Albemarle County Comprehensive Plan includes the following goal:

Maintain a strong and sustainable economy: 1) benefitting County citizens and existing businesses and providing diversified economic opportunities; 2) supportive of the County's Growth Management Policy and consistent with the other Comprehensive Plan goals; and 3) taking into consideration the greater Charlottesville Metropolitan area.

To meet the goal of providing a sustainable economy, diversified economic opportunities and the intent of the growth management goal to encourage non-rural related activities to locate in the designated growth areas, it is important to have a sufficient inventory of zoned lands in the growth areas to support anticipated and desired growth in these sectors of the economy.

This study reports on the conditions and availability of property that is zoned for industrial purposes and includes discussion of both existing and future industrial uses. The County's industrial zoning includes light-industrial (LI), heavy-industrial (HI), and planned development industrial parks (PDIP). The purpose of this assessment is to ensure that opportunities are available for more basic type of business/employment enterprises (manufacturing, research/development and assembly of products) and certain commercial services that have more industrial-like character (agri-business, contractor's storage, landscaping services and commercial cleaning, warehousing, auto repairs, tractor sales/service, etc.). Many of these types of industry do not develop large scale projects and traditionally cannot or will not pay premium prices for land or have time and resources needed for rezoning. These types of businesses typically need developed sites or land ready to develop. Rezoning, development/redevelopment typically occurs for uses that create the highest return per acre or square foot (retail-commercial, office, residential).

Staff researched real-estate records and Geographic Information System (GIS) Data to assess the quantity and quality of industrial property to derive the County's current inventory, or supply. Major factors considered included the extent to which land has been developed and the property's proximity to infrastructure. Research also included an inventory of industrial parks in the region (City of Charlottesville, and Orange, Nelson, Louisa, and Greene Counties). Together, this information provides a "snapshot" of the supply of land currently available under existing industrial zoning. To assess demand, staff conducted interviews with users of industrial property, and forecast employment by industry subsector. Interview information included discussions about the buy/sell/lease activity of LI land users. Employment projections were based on Bureau of Labor Statistics (BLS) employment data trends by industry.

RESULTS OF THE STUDY

Zoning Restrictions

Existing LI, HI, and PDIP zoning districts provide an inventory for immediate business use. Parcels designated in the Comprehensive Plan for Industrial Service (IS) may need to be re-zoned to LI, HI, or PDIP zoning districts before a business can use the property. The table below lists the major categories of uses allowed under each of the Code’s industrial zoning districts.

Table 1 – Industrial Zoning Uses

USE	By-right	Special Use
Research & development, compounding drugs, chemical, medical, and biological products	LI, PDIP	
Publishing, printing	LI, PDIP	
Assembly, light manufacturing	LI, PDIP	
Heavy manufacturing (asphalt, brick, cement, fertilizer manufacturing & processing)	HI, PDIP	
Office	LI, HI, PDIP	
Auto, farm & construction products assembly, saw mills	HI, PDIP	
Scientific or Technical education	LI, PDIP	
Contractor office, equipment, storage	LI, HI, PDIP	
Auto Body Shop, Towing, Truck Terminal, Laboratories		LI, PDIP
Dry cleaning plant, welding & metal fabrication	HI, PDIP	
Engineering, Design, assembly, fabrication of machinery using equipment <= 15 hp	LI, PDIP	
Kennels, Junkyards, abattoirs, miscellaneous storage yards		HI, PDIP
Hotels	PDIP	

What is evident from the table above is that LI and HI zoning districts are restrictive in some ways and allow undesirable uses in other ways, such as dental offices that are more typical of Class A office. Survey interviews described later in this report corroborated some of the challenges of the Zoning Code to locating an expanding or contracting business.

Industrial Land Inventory

Staff’s “snapshot” of current inventory includes industrial parks surrounding Albemarle County (e.g., City of Charlottesville, Louisa, Orange, Nelson and Greene counties). In terms of vacant land, the current inventory in other jurisdictions ranges significantly. Orange and Louisa Counties each offer industrial parks of over 2,000 acres and the low is 0 acres in the City of Charlottesville. In terms of vacant building square-footage, the region’s largest industrial facility is located in Albemarle County with over 400,000 square-feet (Seminole Place). The City has one building with over 300,000 square-feet (Frank Ix building); and Greene and Louisa counties each have buildings with over 100,000 square-feet. Please see Appendix A - VEDP Database for list of the region’s inventory.

In terms of having an industrial park greater than 10 acres outside of what is provided by the University of Virginia Real Estate Foundation, Albemarle has little to offer in comparison to Orange, Louisa or Nelson County. The County has several vacant buildings, each with unique challenges to adaptive re-use. Acme Visible Records in Crozet is considered unavailable in the current inventory

due to its 4 years into a 10-year environmental clean-up program. Other key Acme property hindrances include its 10’ ceilings (far too low for industry standards), half the property is landlocked by the CXS rail line, and the owners will only consider lease offers. Earlysville’s Avionics building is also undergoing remediation. The Badger building in Places 29 has no contamination, but is purpose built and not of a quality suitable for high-tech operations. At this time of this research Scottsville’s Hyosung Tires is expected to close operations in 2010.

Table 2 – Major Existing Buildings in Albemarle & Charlottesville

Building/SF	Location	Status
Seminole Place, 400,000 SF	Neighborhood One, Albemarle	Mostly occupied
Badger Building	Piney Mountain, Albemarle	Vacant
Acme Visible Building	Crozet, Albemarle	Mostly vacant, environmental remediation limiting current use
Avionics Building	Earlysville	Environmental remediation
Earlysville Business Park	Rural Area near Earlysville, Albemarle	Mostly occupied
Frank IX Building, 300,000 SF	City of Charlottesville	Mostly occupied

The County has not been considered a major industrial center, as evidenced by the limited breadth of industrial buildings. Those operations that vacated due to functional obsolescence left behind equally obsolete facilities. However, the County can point to several projects that successfully adaptively re-used an industrial building, including Musictoday/Starr Hill, Seminole Place, and Earlysville Business Park. Of the remaining currently-vacant buildings in Albemarle County, several must first correct environmental contamination prior to adaptive re-use.

To better understand the historic footprint of industry, staff first analyzed where the inventory is occupied. Staff analyzed real estate records of industrial property with building values of \$20,000 or more. The inventory of occupied, zoned industrial property shows a high proportion in the Places 29 development area. The breakdown of occupied LI/Hi/PDIP zoned property by development area is as follows: 43% Places 29; 43% development areas south of the City (neighborhoods 4, 5, 6 and 7); 13% Crozet; and 0% Pantops. See “Appendix B – Real Estate Records of Industrially-Zoned Properties with building values of \$20,000 or more.”

In comparison to occupied industrial land, the distribution of vacant product is more heavily skewed to Places 29. The vacant land inventory also shows the acreage of land designated in the Land Use Plan is sufficient; however, zoned land is insufficient. In terms of what is currently available zoned industrial land, staff first recognizes a more than adequate supply of PDIP zoning. The University of Virginia provides a world-class research park, and provides ample acreage, infrastructure and resources. The vacant, available PDIP inventory is over 335 acres. However, the Research Park is not an option for all of the County’s industrially-based enterprises.

For non-UVA Park tenants, staff concludes there is a shortage of high-quality, vacant industrial land, compared with existing users’ stated demands, workforce projections and comparable supply in other jurisdictions within the region. Total zoned, vacant property available for business requiring LI zoning only amounts to 199 acres County-wide. Of the 199 acres, 40 acres are located in the rural areas, and pre-date the County’s growth management policy of protecting the rural areas. These LI-

zoned properties in the Rural Areas (RA) are not permitted to connect to water and sewer and are not given priority for road improvements. Taking out the 40 vacant, available acres in RA, there remain 160 vacant, available acres in the County Development Areas (DA) for basic industry expansion and contraction. This includes 52 acres of Crozet’s Acme Visible Records property. Though primarily vacant, Acme does not meet the definition of “available” due to significant environmental contamination with 7 years remaining for clean-up. The actual vacant, available County LI inventory is closer to 100 acres.

Even more limited, the inventory of vacant available County HI shows only 44 acres. See the Table below, Map #1 Vacant, Available Zoned Property and Appendix C – GIS Records.

Table 3 – Available Vacant Zoned Industrial Property

Zoning	Vacant Acreage	Ave. Parcel Size (acres)	No. of Parcels
Places 29	78.0	6.5	12
Crozet	63.0	2.0	6
Urban Area 4	17.6	1.4	13
Total LI (Development Areas)	159.2	3.5	31
LI (Rural Areas)	40.1	4.0	10
HI	44.0	3.6	12
PDIP	335.8	n/a	n/a

(1) A previous County industrial vacancy estimate of 111 acres included only those parcels that were both zoned for light-industrial uses and designated for this same use in the Comprehensive Plan.

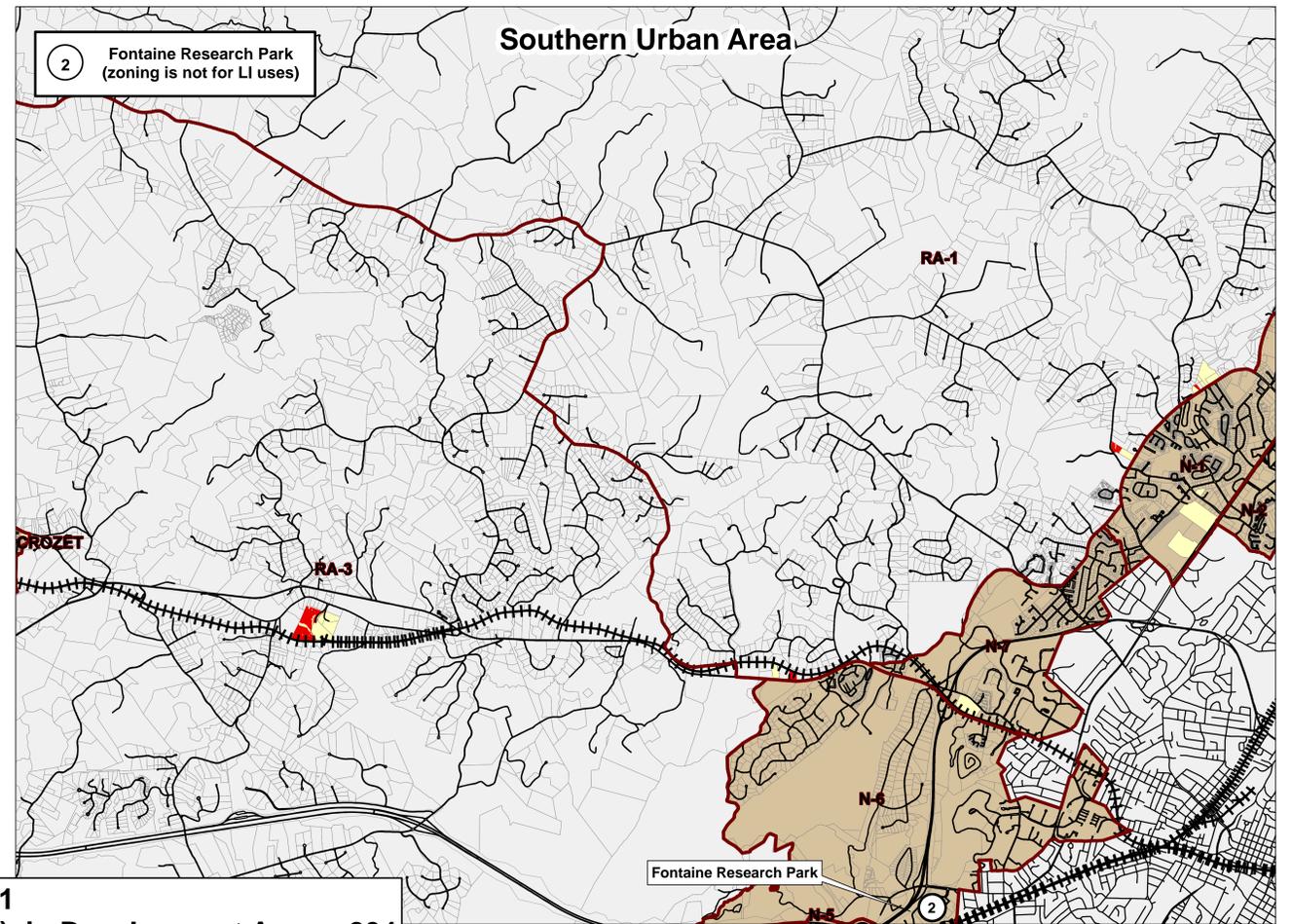
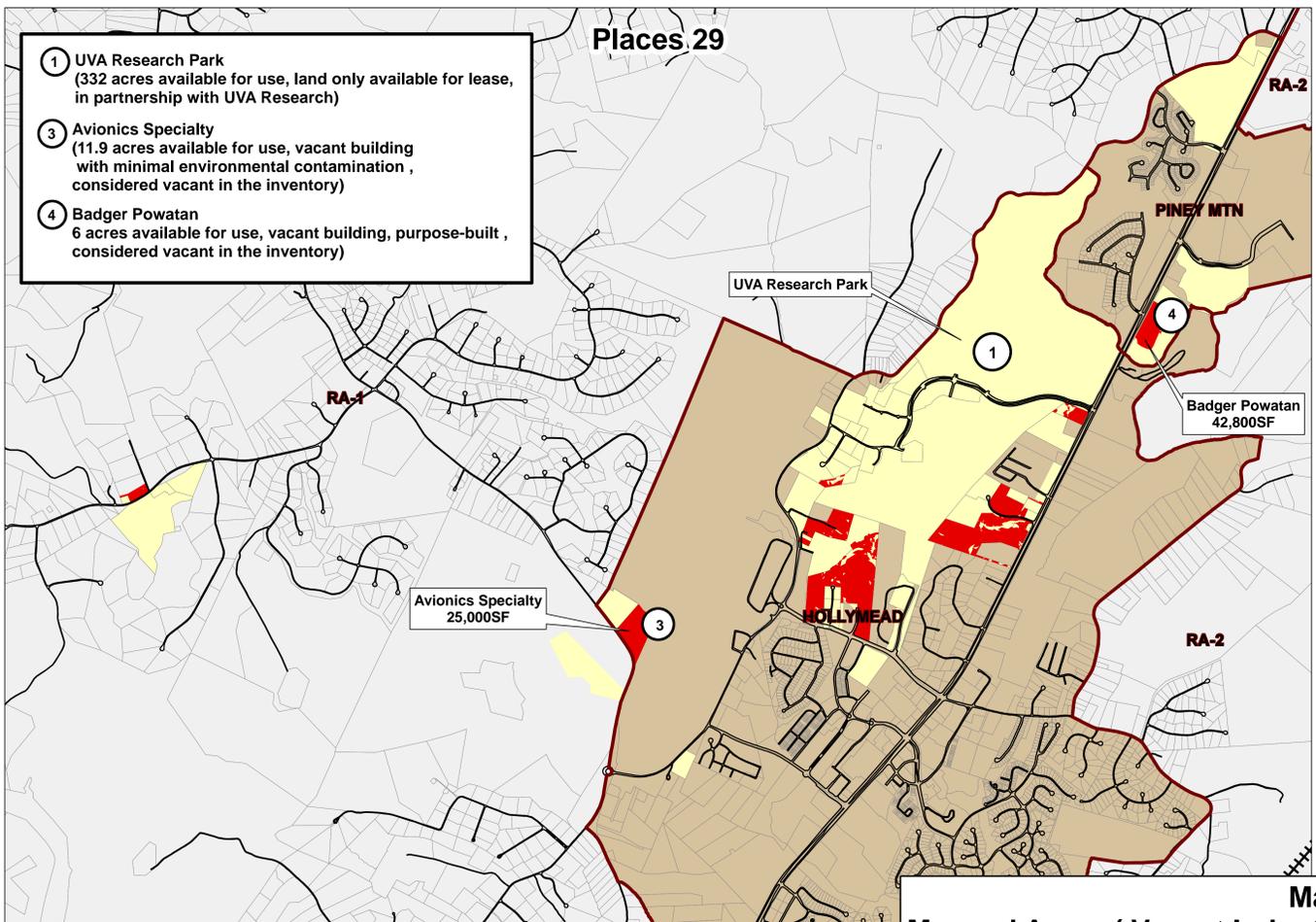
(2) The vacant 52-acres from the Acme property, in Crozet, was not considered available inventory due to significant environmental contamination, with remediation currently on-going for the next 10 years ; actual vacancy is closer to 140 acres countywide with 11 acres vacant in Crozet.

Small-Sized Parcels

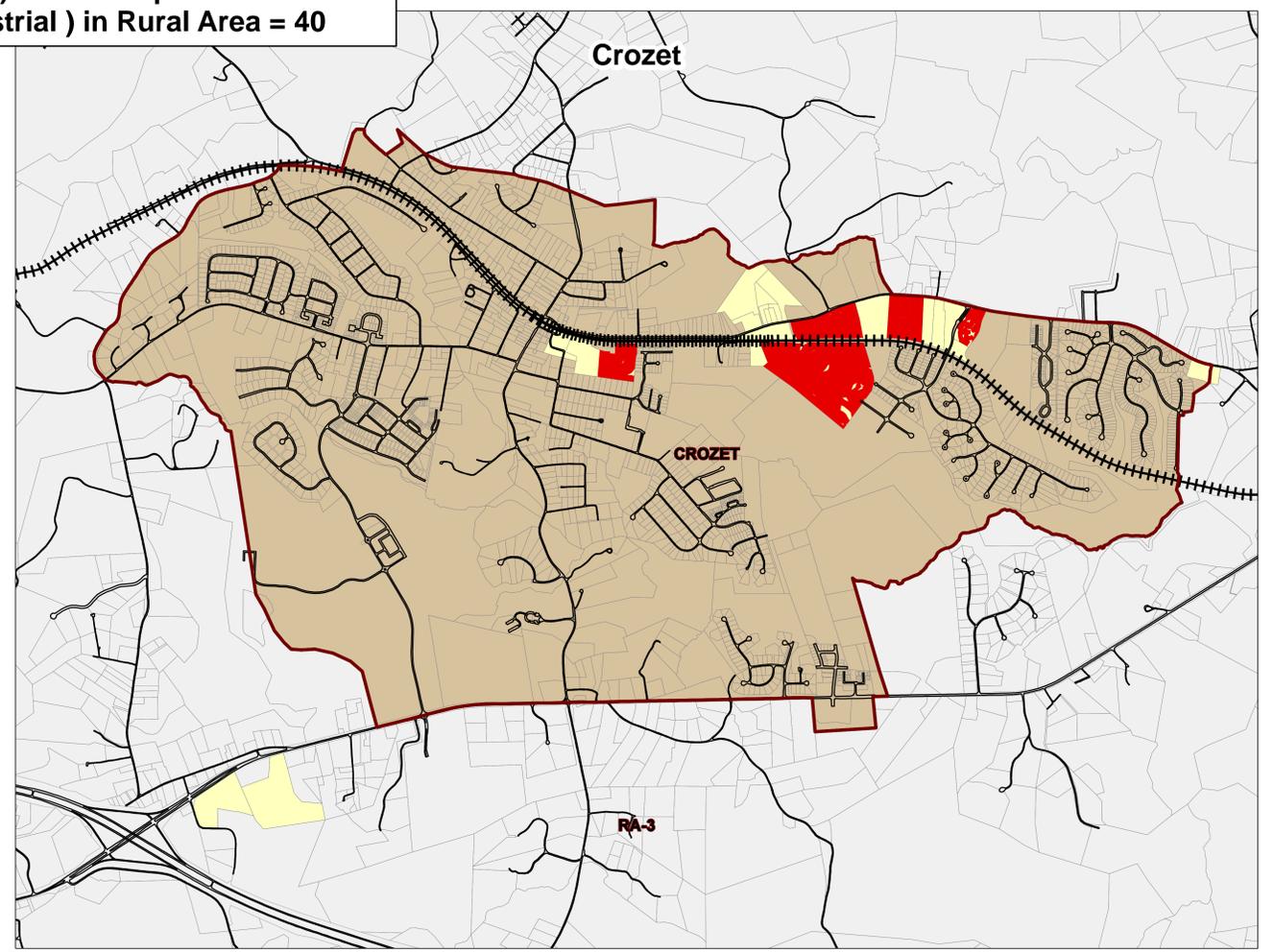
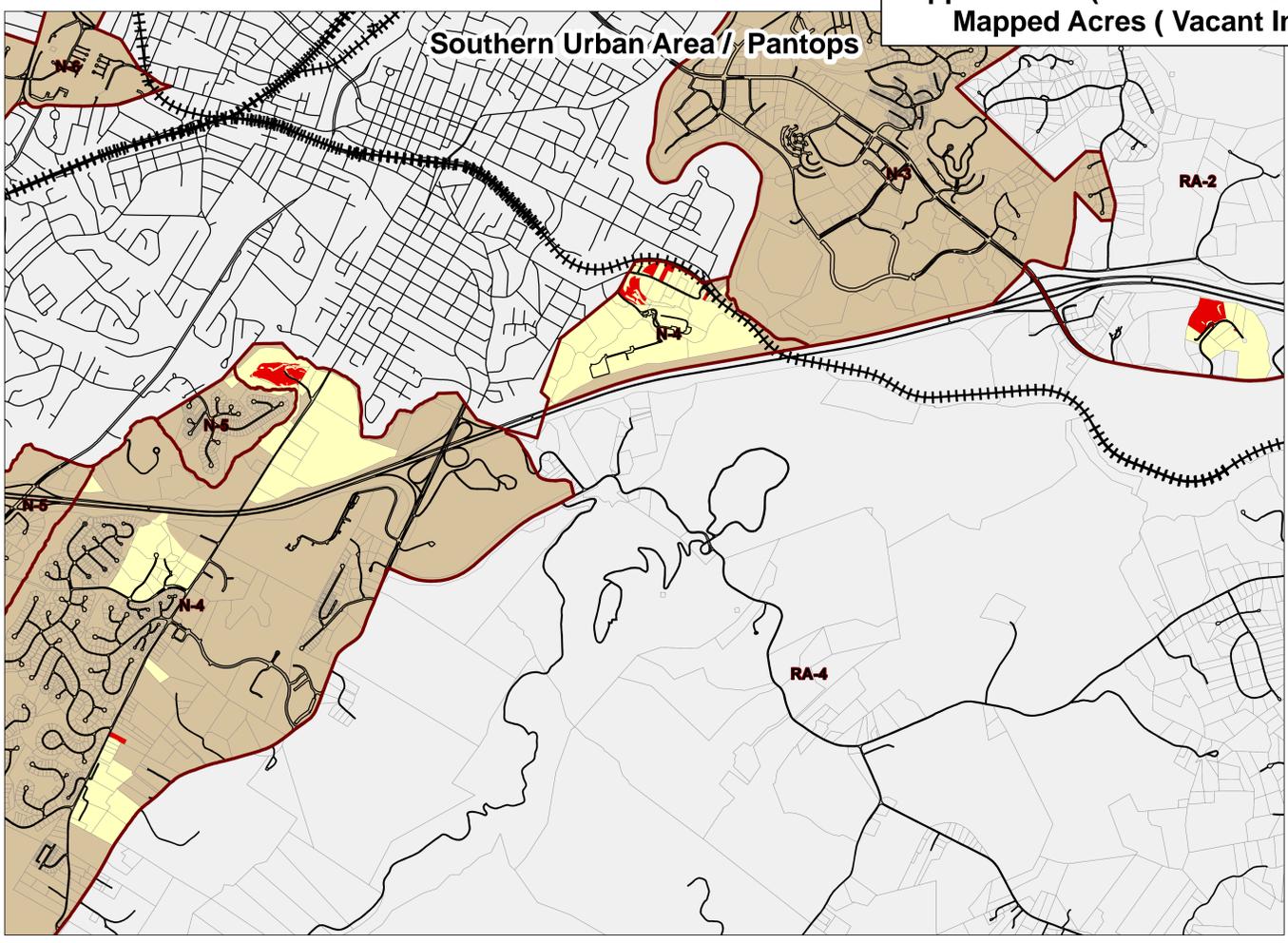
Most of the current, zoned and vacant parcels are small in size (average size, 3.5 acres). The major limiting characteristic of the current zoned inventory is the size of the parcels. Small parcels limit the flexibility of the inventory to address the variety of business sizes. It also requires more parcels to be aggregated to meet site size needs. This is where the Zoning Code hinders assemblage with its 5-acre minimum restriction. In addition, as is the case with much of the land in the County, existing sites are compromised to some extent by the prevalent rolling terrain and numerous streams that make up the County lands.

Poor Spatial Distribution

Planning for future uses, industrial property is designated in the Land Use Plan for future rezoning to industrial uses. The vacant inventory of industrially-designated property is more than adequate with over 904 acres County-wide. However, most of the undeveloped parcels designated for industrial use are in the US 29 North corridor. There is a very limited amount of available, vacant undeveloped land designated for industrial uses in the southern urban areas (Neighborhoods 4-7). See the Table below for industrially-designated land inventory and Map #2.



Map #1
Mapped Acres (Vacant Industrial) in Development Area = 204
Mapped Acres (Vacant Industrial) in Rural Area = 40



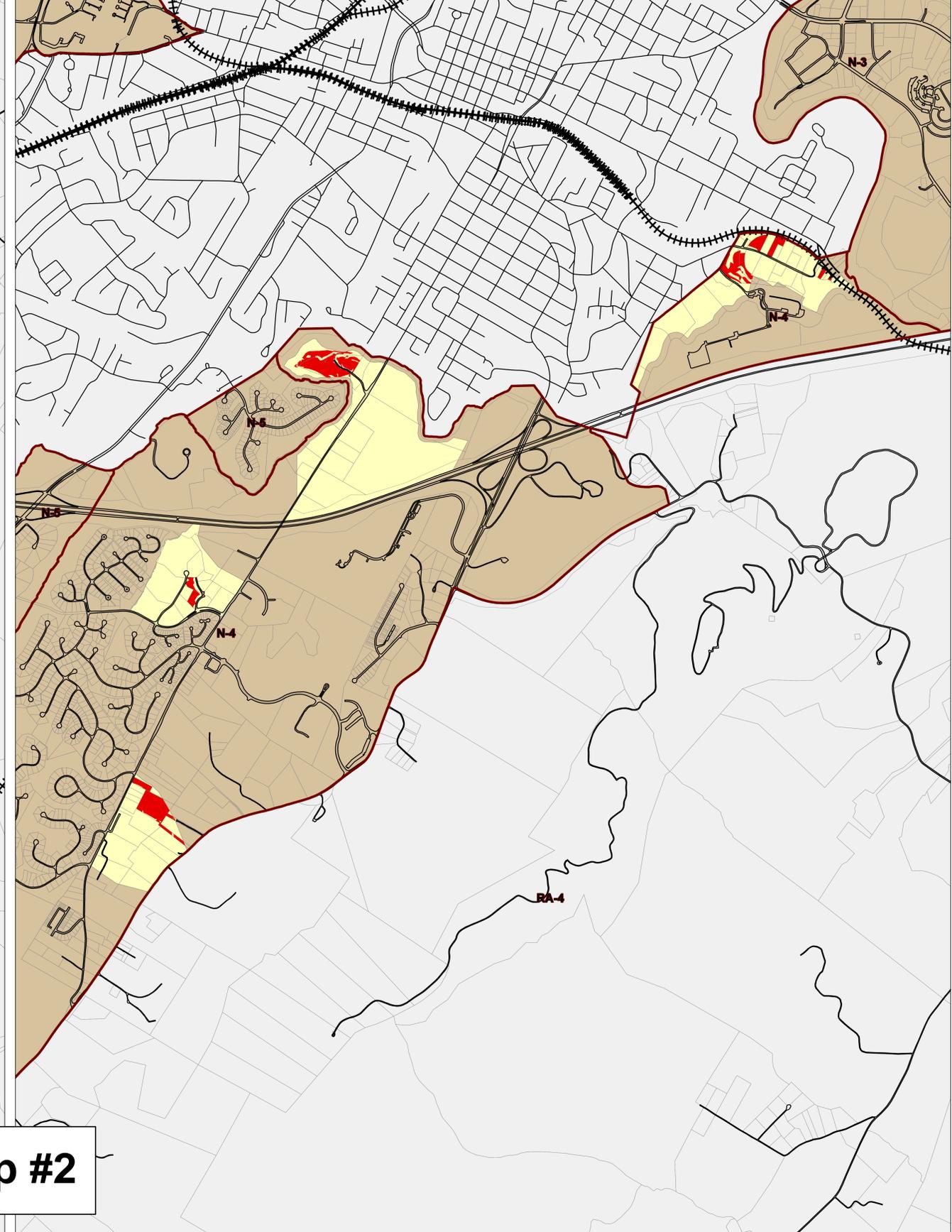
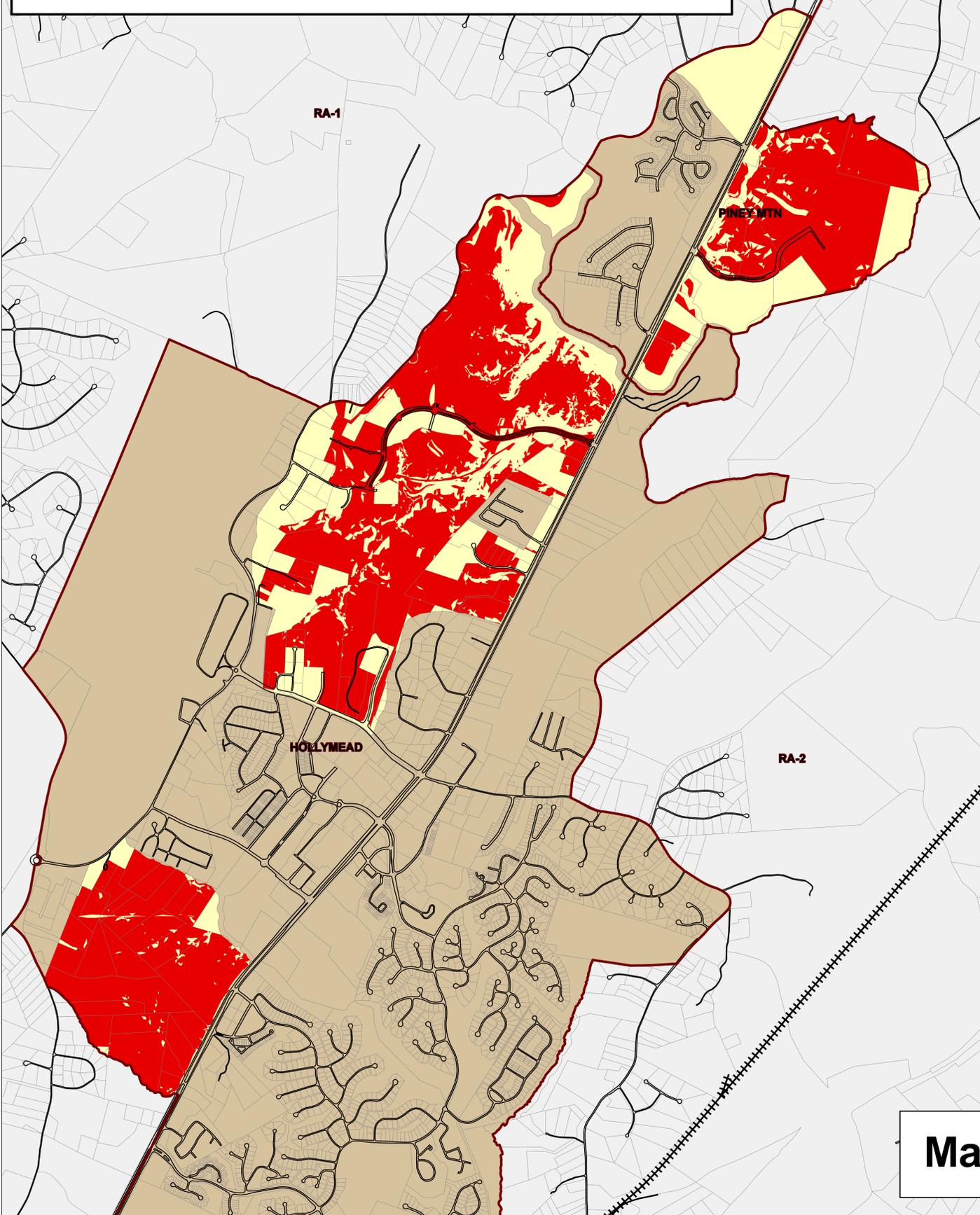
Mapped Acres (Vacant Industrial Service) in Development Area = 903

Note : District Comp Plan designations in Crozet = 9 mapped acres

Employment District Comp Plan designations in Pantops do not meet the specified criteria so their acreages are not included.

Places 29

Southern Urban Area



Map #2

Table 4 – Available Industrial Property Designated in the Land Use Plan

Designation	Vacant Acres	Ave. Parcel Size (ac)	No. of Parcels
Total Industrial Service	913.4	11.2	84
Comp Plan – Urban Area 4	25.4	1.6	16
Comp Plan – 29 North	877.9	13.5	65
Comp Plan – Crozet	10.1	3.4	3

As evidenced by Map #2, there is a limited amount of undeveloped industrial land designated near the interstate highway or rail in the Land Use Plan. Some areas designated for industrial use in the Land Use Plan - in addition to moderate topography issues - lack existing road frontage/access at this time and many areas do not have utilities on-site or nearby.

Future road network improvements would provide good access in the future, when developed. For example, in the southern portion of Hollymead a large area designated for Industrial Service currently has very limited access to US 29 or Rio Mills Road, but will ultimately be served by Berkmar Drive extended. This site is good quality site from a long term perspective, but is not considered viable in terms of meeting short-term demands/needs.

Furthermore, there are properties currently zoned industrial within the County’s Development Areas but are designated for other uses in the Master Plan. Most of these sites are located near existing employment areas. This creates a disincentive to market and develop these sites for industrial uses, rather marketing the site for higher valued uses (commercial-retail, residential).

For both existing zoned land inventory and Land Use Plan-designated areas, there is a lack of undeveloped areas south of town in Urban Neighborhoods 4-7, in Crozet, and in Pantops.

Conversion to Other Uses (Owners Speculating for Other Uses)

The focus of the research is vacant property zoned for industrial uses. It is less common for an industrial enterprise to develop a large-scale project. The more typical industrial user is a smaller-scale operation unable or unwilling to pay premium land prices, or afford to rezone to industrial zoning. An additional constraint to rezoning, the Code requires a minimum parcel size of 5 acres. Recent trends indicate few requests for rezoning IS property for industrial uses; instead several IS-designated properties were rezoned to non-industrial uses (retail-commercial or residential uses). The table below lists recent examples:

Table 5 – Land Designated for Industrial but Converted to Other Uses

Property	Acres	Year	Previous Uses	Rezoning
Avon-5 th	84	2007	Solid waste dump	Retail-Commercial
Willow Glen	22	2006	Raw land	Affordable housing
NGIC	≥20	2008	Raw land	Office buildings
Albemarle Place	29	2006	Redevelopment	Mixed use
Hollymead Town Center	37	2005	Raw Land	Mixed use

Quality Assessment Further Reduces the Inventory

In addition to the analysis of real estate records for vacancy/under-utilization, the inventory also includes an assessment and ranking of the quality of each vacant industrial parcel or assemblage of parcels in terms of 1) site constraints (having sensitive environmental conditions such as flood plain, stream buffer, critical slopes, or environmental contamination); and 2) connections to infrastructure (water, sewer, road capacity and rail). The quality is ranked as “high-quality;” “acceptable” and “poor.” “High-quality” indicates the parcel is ready for use, “Acceptable” indicates that there are some issues to address, and “Poor” indicates that the site is severely constrained and/or characterized by inadequate infrastructure for uses allowed under light-industrial zoning. The GIS data showed 420 acres of high-quality industrial land, of which 80 % is located within the University Real Estate Foundation’s Research Park (UREF). There are 83 acres meeting an acceptable standard and 27 acres considered poor-quality property. Essentially the County’s inventory of industrial property in the development area is effectively less than the 100 acres identified as vacant or underutilized and likely closer to 85 acres, in terms of quality parcels for non-research related enterprise. Appendix C lists the major parcels and parcel assemblages, and staff’s assessment of quality.

Industrial Demand Survey: Few “Ready-to-Go” Properties, Rezoning a Disincentive

The approach for assessing demand, or the market, for industrial property is significantly different from that used in the retail or housing market. Both retail and housing market assessments typically focus on the “number of residential rooftops” within a geographic area. It is common practice for corporate-level retailers to plan expansions and new locations based on growth rates in residential units, among other demographics conditions. Almost the opposite of retail and housing, industrial users consider housing growth as a possible impediment to expansion, due to conditions of land-price speculation. An active real estate market can effectively price an industrial-land user expansion out of a given market.

From a land use planning and policy perspective, locating industrial areas is a balance between the concerns and constraints noted above with the desire to provide for employment opportunities within reasonably close proximity to residential areas and public services to provide for efficient service delivery and reducing traffic/ commuting impacts of having a highly dispersed, segregated and sprawling form of development.

Interviews were conducted with industrial property users and commercial real estate specialists in commercial office and commercial-industrial property to determine the conditions of the local market. The results in aggregate demonstrated that a foremost requirement, among the several factors considered by industrial-land users, is lower priced real estate with the appropriate zoning for their expected uses. See Appendix D for survey answers.

The interviews indicated that the lack of industrially-zoned property was only part of the issue. According to several interviews, restrictions in the County zoning code adversely affected potential use. The County’s LI and HI districts do not permit some uses that typically locate in industrial districts in other jurisdictions, such as commercial landscaping. Called “Home and Business Services,” commercial landscaping is allowed in Highway Commercial zoning. One survey respondent indicated the lack of industrially-zoned parcels resulted in a location decision outside of Albemarle County. Companies expanding within the County typically incur an average of an

additional \$60,000 or more in carrying costs for development approvals, as cited by the Small Business Development Center in 2009. One factor (lack of zoned land) is creating incentive to leave and the other (zoning code restrictions) a disincentive to stay. Given the time and costs associated with local development approvals, the lack of industrially-zoned land exacerbates the challenges to expanding a local business.

Based on Employment Projections, More Land Needed

The Bureau of Labor Statistics (BLS) reports the total number of employees by industry codes, such as “manufacturing,” “transportation & warehousing” or “wholesale-trade.” Based on assumptions for projecting past employment trends by industry, the range of land needed to accommodate future employment by 2018 is from a low of 184 acres to a high of 500 acres (based on assumptions for 400SF/employee building at 10,000SF/ac). See Appendix E for BLS Employment data.

This is a very general “land use” allocation approach to determining industrial land needs and not based on specific economic/market analysis of our local and regional economy. It generally applies national employment projection from BLS to those industrial and industrial type service employment sectors. The growth rates are adjusted in certain cases to reflect local trends or goals (stronger local growth in health care for example). The amount of existing zoned land is below the range of acreage needed by 2018.

CONCLUSIONS

There is an adequate amount of industrial land designated in the Comprehensive Plan to accommodate future employment growth in the major industrial/industrial-like employment sectors. Most of the undeveloped parcels designated for industrial use are in the US 29 North corridor. There is a very limited amount of undeveloped land designated available for industrial uses in the southern urban areas (Neighborhoods 4-7) or in Crozet. There is a limited amount of undeveloped industrial land designated near the interstate highway or rail in the Land Use Plan. Many of the remaining undeveloped areas designated consist of smaller-sized parcels; some do not currently have direct access to roads and some areas do not have utilities on-site or nearby.

There is a very limited supply of undeveloped zoned land within the designated development areas. Most of the available, vacant zoned parcels are small in size (average size, 3.5 acres). There are properties currently zoned industrial within the County’s Development Areas, which are designated for other uses in the Master Plan. Most of these sites are located near existing employment areas. This creates a disincentive to market and develop these sites for industrial uses, instead marketing the site for higher valued uses (commercial-retail, office and residential).

In terms of the distribution, the majority, or 72%, of vacant light-industrial zoning is located in Places 29 with only a scarce amount available elsewhere for LI uses (11% in Crozet and 17% South of Charlottesville). Likewise, 62% of HI is located in Place 29, with the remaining 38% of available HI parcels comprising two 8-acre tracts in Crozet. Likewise, in terms of future industrial uses, 96% of vacant IS parcels are located in Places 29 — an area where transportation systems are already impacted.

This inequitable distribution hinders the County’s goals for live-work environments within each growth area. The growth management policies of the County encourage a mix of uses within each development area. This helps ensure greater success in creating live-work environments, requiring less reliance on vehicle trips and road infrastructure. This lack of industrial land in the County’s several development areas ultimately limits the potential mix of uses.

The zoning code is also affecting or interfering with the County’s growth management goals for creating live-work environments. Large-scale industrial activities are not always compatible with residential neighborhoods. However, the Zoning Code could be modified to allow small-scale activity at a level that would not create discernable impacts to residential uses, and still allow for shorter commutes (e.g., ideally within each development area).

RECOMMENDATIONS

To address the complexity of the market and the real estate issues, Staff recommends the following approaches:

1) Maintain/protect and allow easier use of existing zoned industrial properties

- Designate lands located in the Development Areas that are currently zoned industrial for Industrial Service or Office/Research & Development/Flex land use in the Land Use Plan. Some zoned lands are designated for other uses in the Land Use Plan (mostly residential, commercial, or mixed use) creating an incentive to convert to properties to uses other industrial uses. Making the Land Use designations consistent with the existing zoning would eliminate this incentive and encourage the properties to be marketed for industrial uses. (The Crozet community is considering this possibility with the update of its Master Plan. Currently this is over 50 acres of LI zoned land in Crozet, including land associated with the old Con-Agra and Acme site that are designated for residential or mixed uses. The community is considering other changes in or near downtown for mixed or industrial uses to support the downtown as the focus and hub of the community’s economic activity.)
- Amend the Zoning Code for LI and HI districts to allow more industrial and industrial like service uses as permitted uses either by-right use by Special Permit AND eliminate or control permitted uses which allow the property to be used for non-industrial, “industrial-like” services, and basic employment supporting uses (office and commercial/retail activities). Such changes to be considered could include:
 - Eliminating or regulating (as ancillary only to primary industrial use) the use permitted under the “office” type use.
 - Allowing HI-permitted uses in LI districts by Special Use permit, based on performance expectations to mitigate impacts.
 - Expanding by-right uses in LI districts to provide expansion opportunities for small home and business services, wholesale distribution, warehousing, auto repair-related activities, and agricultural-related support businesses.
 - Expanding the potential activities and threshold sizes for home-occupations allowed in the existing zoning district regulations.

-In the long-term, consider the appropriateness of implementing other innovative zoning concepts such as to support industrial development, including but not limited to a) Amending the Zoning Code to create one industrial zoning classification tied to performance standards to abate noise, dust and other environmental impacts; b) Creating a special overlay district or corridor for industrial enterprise

2) Increase the inventory of zoned lands available and potentially on the market.

- Through a public process and in conjunction with affected property owners, amend the Zoning Map to rezone lands **currently** designated Industrial Service in the Land Use Plan to Light Industrial zoning district.
- With the development of the Southern Urban Areas Master Plan and/or update of the Comprehensive Plan designate additional “Industrial Service” or “Office/Research & Development/Flex” areas to provide for and better balance in the distribution of industrial and basic employment opportunities within the County.

Very little undeveloped zoned or designated land is available in this part of the Development Areas.

The Southern Urban Areas provide close proximity to utilities, I-64 (three interchanges), residential areas and downtown Charlottesville. Particular attention should be given to providing opportunities near the interstate interchanges.

- To maintain the integrity of the County Growth Management policy to protection water supply watersheds, natural resources, efficient public service delivery, preservation of scenic, historic and cultural resources—which contributes to the County’s significant tourism industry—expansion of industrial activities outside of the Development Areas should be discouraged. However, certain basic contractor type uses and industrial type uses which are consistent with, relate to and/or supportive of the Rural Areas should be permitted in certain locations. Specifically:

-Consider allowing certain lower impact industrial and industrial like service uses (low total traffic, low water& sewer needs, limited/controllable visual impact) in the interstate interchange policy for interstates outside the DAs. These potential uses allowed:

- would **not** be commercial-retail uses
- would tend to have low level of on-site employment
- would not need water and sewer services to support development
- Would permit small scale contractor office and storage yards, landscaping services, agricultural-forestry resource businesses, and other uses related / complementary or supplementary to rural activities/resources).

Candidate interchange areas for this concept would be at Shadwell and Yancey Mills. The existence of significantly substandard road and traffic conditions, as well as the existence of significant natural, scenic and historic resources at the Shadwell interchange area, could limit the viability of this concept in this location.

Appendix A -- VEDP Regional Industrial Parks

Locality	Industrial Parks	Site Area (acres)
	University Research Park	562
Albemarle		562
	Rapidan Mixed Use	67
	Tennyson Site	15
	Crigler-Weaver	6
	Spotswood Business Park	5.4
Greene		93.4
City of Charlottesville		0
	Cooke Rail site	1,200
	County Industrial Air Park	323
	John Jerl Percell	288.7
	Austin land & Cattle	206.2
	Morgan	173
	Pendleton	172
	Spring Creek Business Park	155
Louisa		2,518
	Colleen Business Park	37
	Callohill	16
	Cory	11.8
Nelson		64.8
	King	2,000
	Thomas E Lee Ind. Park	158
	Royal Concrete	57
	Payne/Hale	46
	York	30
	DeVivi Sr. Estate	26.8
	Tourville	8
Orange		2,326

Source: <http://yesvirginia.org/>
Site Selection menu

Locality	Property Name	Space Available (SF)
Albemarle	Seminole Place	413,126
	Biotage	51,256
	Avionics	49,000
	Coyne & Delaney	41,888
	Carlisle	25,266
	NGIC Building	120,000
	UVA Town Center III	60,985
	Daily Progress building	43,450
	Peter Jefferson Place	38,882
	UVA Town Center I	23,953
Cville	Greenbrier Station	21,000
	Abington Place	18,683
	Old Trail Village Center	10,500
	Frank Ix	363,381
Cville	110 Avon Street	34,407
	Precision Parts building	15,477
Greene	385 Industrial Drive Bldg	20,195
	Kirk Neal Warehouse	15,000
	44 New Life Building	10,500
	Tall Oaks Technology Ctr	10,000
	Virginia Company building	9,990
	Greene Flex Plex	8,000
	Rapidan Center	150,000
	Countryside Commons	8,700
5916 Seminole Trail	6,400	
Louisa	Klearfold	109,350
Orange	Timber Truss	72,545
	Montibello Building	60,000
	CR Butler Building Supply	40,208
	Silk Mill	30,000
	General Shale Brick	23,000
	Twins of Germanna	50,317
	Locust Grove Town Center	20,000
	Diversified Information Tech	15,000
	Ed Jaffe Gallery & Town Hou	15,000
	Nelson	Mountain Cove
Davis Creek		10,000

Appendix B – Real Estate Records of Occupied Industrial Property, Albemarle

TMP	ACRES	COMPLAN	ZONING	TMP	ACRES	COMPLAN	ZONING	
	02100C	50.3	Piney Mt. Comm	Light Industry	06000	13.1	Urban Area	Light Indu
	03200C	17.4	Piney Mt. Comm	Light Industry	076M1	7.6	Urban Area	Light Indu
	03200C	28.9	Piney Mt. Comm	Light Industry	07700	1.8	Urban Area	Light Indu
	03200C	1.2	Piney Mt. Comm	Light Industry	07700	6.3	Urban Area	Light Indu
	03200C	6.4	Piney Mt. Comm	Light Industry	07700	5.0	Urban Area	Light Indu
	03200C	13.2	Hollymead Comm	Light Industry	07700	51.7	Urban Area	Light Indu
	03200C	2.6	Hollymead Comm	Light Industry	07700	1.6	Urban Area	Light Indu
	03200C	20.6	Hollymead Comm	Light Industry	07700	13.9	Urban Area	Light Indu
	03200C	0.5	Hollymead Comm	Light Industry	07700	0.6	Urban Area	Light Indu
	03200C	1.0	Hollymead Comm	Light Industry	07700	0.4	Urban Area	Light Indu
	03200C	1.7	Hollymead Comm	Light Industry	07700	0.7	Urban Area	Light Indu
	03200C	0.9	Hollymead Comm	Light Industry	07700	0.5	Urban Area	Light Indu
	03200C	0.9	Hollymead Comm	Light Industry	07700	2.3	Urban Area	Light Indu
	03200C	0.9	Hollymead Comm	Light Industry	07700	1.2	Urban Area	Light Indu
	03200C	1.0	Hollymead Comm	Light Industry	07700	2.1	Urban Area	Light Indu
	03200C	5.3	Hollymead Comm	PDIP	07700	0.6	Urban Area	Light Indu
	03200C	2.0	Hollymead Comm	Light Industry	07700	1.4	Urban Area	Light Indu
	03200C	1.8	Hollymead Comm	Light Industry	07700	2.1	Urban Area	Light Indu
	03200C	1.2	Hollymead Comm	Light Industry	07700	3.1	Urban Area	Light Indu
	03200C	1.7	Hollymead Comm	Light Industry	07700	3.2	Urban Area	Light Indu
	03200C	1.2	Hollymead Comm	Light Industry	07700	1.4	Urban Area	Light Indu
	03200C	0.4	Hollymead Comm	Light Industry	07700	1.1	Urban Area	Light Indu
	03200C	0.6	Hollymead Comm	Light Industry	077E1	50.7	Urban Area	Light Indu
	03200C	0.1	Hollymead Comm	Light Industry	077E1	2.8	Urban Area	Light Indu
	03200C	2.0	Hollymead Comm	Light Industry	077E1	10.1	Urban Area	Light Indu
	03200C	2.2	Hollymead Comm	Light Industry	077E1	4.0	Urban Area	Light Indu
	03200C	2.6	Hollymead Comm	Light Industry	077E2	14.9	Urban Area	Light Indu
	03200C	4.9	Hollymead Comm	PDIP	077E2	5.9	Urban Area	Light Indu
	03200C	2.0	Hollymead Comm	Light Industry	077E2	2.9	Urban Area	Light Indu
	03200C	4.0	Hollymead Comm	PDIP	07800	10.4	Urban Area	Light Indu
	03200C	7.1	Hollymead Comm	PDIP	07800	0.6	Urban Area	Light Indu
	03200C	6.0	Hollymead Comm	PDIP	07800	0.0	Urban Area	Light Indu
	03200C	6.4	Hollymead Comm	PDIP	07800	0.2	Urban Area	Light Indu
	03200C	2.6	Hollymead Comm	PDIP	07800	0.2	Urban Area	Light Indu
	03200C	2.6	Hollymead Comm	PDIP	07800	0.3	Urban Area	Light Indu
	03200C	4.3	Hollymead Comm	PDIP	07800	0.4	Urban Area	Light Indu
	03200C	10.3	Hollymead Comm	Light Industry	07800	0.2	Urban Area	Light Indu
	03200C	2.0	Hollymead Comm	Heavy Industry	07800	22.0	Urban Area	Light Indu
	03200C	1.8	Hollymead Comm	Heavy Industry	09000	8.2	Urban Area	Light Indu
	03200C	6.5	Hollymead Comm	Heavy Industry	09000	1.5	Urban Area	Light Indu
	03200C	9.4	Hollymead Comm	Light Industry	09000	7.3	Urban Area	Light Indu
	03200C	4.2	Hollymead Comm	Light Industry	09000	0.7	Urban Area	Light Indu
	03200C	4.2	Hollymead Comm	Heavy Industry	09000	0.7	Urban Area	Light Indu
	03200C	1.0	Hollymead Comm	Heavy Industry	09000	0.7	Urban Area	Light Indu
	061W0	2.0	Urban Area 1	Light Industry	09000	1.3	Urban Area	Light Indu
44%	061W0	25.4	Urban Area 1	Light Industry	09000	6.8	Urban Area	Light Indu
294.6	061W0	19.4	Urban Area 1	Light Industry	09000	4.4	Urban Area	Light Indu
					09000	5.8	Urban Area	Light Indu
	05600C	9.5	Crozet Commu	Light Industry	43% 09000	5.8	Urban Area	Light Indu
	05600C	1.7	Crozet Commu	Light Industry	293.8 09100	3.6	Urban Area	Light Indu
	05600C	0.0	Crozet Commu	Light Industry		676.6		
	05600C	2.0	Crozet Commu	Light Industry				
	05600C	3.0	Crozet Commu	Light Industry	Source: Rod Burton, GDS, Nov. 2009			
	05600C	3.8	Crozet Commu	Light Industry				
	056A2f	4.3	Crozet Commu	Light Industry				
	056A2f	13.1	Crozet Commu	Heavy Industry				
	056A2f	4.0	Crozet Commu	Heavy Industry				
	056A2f	14.7	Crozet Commu	Heavy Industry				
	056A3f	11.2	Crozet Commu	Light Industry				
	056A3f	6.0	Crozet Commu	Light Industry				
	056A3f	5.8	Crozet Commu	Light Industry				
	056E0C	3.7	Crozet Commu	Light Industry				
13%	056E0C	1.5	Crozet Commu	Light Industry				
88.2	05700C	4.0	Crozet Commu	Light Industry				

Appendix C – GIS Records

Vacant LI	GIS_ACRES	%	
Crozet Communit	1.872		
Crozet Communit	3.043		
Crozet Communit	0.162		
Crozet Communit	1.642		
Crozet Communit	0.749		
Crozet Communit	4.517		
Crozet Communit	34.999		
Crozet Communit	2.035		
Crozet Communit	1.729		
Crozet Communit	6.686		
Crozet Communit	3.554		
Crozet Communit	2.681		
Vacant Acme	51.68		
Total w/Acme	63.669	11%	
Total w/out	11.99		
Ave-Crozet	2.00		
Count-Crozet	6		
Hollymead Comrr	12.050		
Hollymead Comrr	0.888		
Hollymead Comrr	0.635		
Hollymead Comrr	3.396		
Hollymead Comrr	5.751		
Hollymead Comrr	7.261		
Hollymead Comrr	2.477		
Hollymead Comrr	0.688		
Hollymead Comrr	25.615		
Hollymead Comrr	1.269		
Hollymead Comrr	11.900		
Total	71.930		
Piney Mt. Commu	6.024		
Total	6.024	72%	
Ave-Places 29	6.5		
Count-Pls 29	12		
Total Pls 29	78.0		
Urban Area 4	0.159		
Urban Area 4	0.000		
Urban Area 4	0.128		
Urban Area 4	3.030		
Urban Area 4	0.979		
Urban Area 4	1.056		
Urban Area 4	0.112		
Urban Area 4	0.422		
Urban Area 4	1.433		
Urban Area 4	1.401		
Urban Area 4	4.945		
Urban Area 4	1.985		
Urban Area 4	1.963		
Total	17.613	16%	
Ave-S.Area	1.35		
Count S.Area	13		
Grand Total	159.236		
<i>DA w/out Acme</i>	107.552		
	199.236		
Grand Ave	3.5		
Grand Count	31.0		

Vacant HI	GIS_ACRES	% split
Hollymead Community	7.19	
Hollymead Community	0.84	
Hollymead Community	1.19	
Hollymead Community	1.33	
Hollymead Community	1.20	
Hollymead Community	2.94	
Hollymead Community	0.23	
Hollymead Community	2.83	
Hollymead Community	5.42	
Total	23.17	
Piney Mt. Community	3.98	
Total	3.98	
Crozet Community	8.52	
Crozet Community	8.31	
Total	16.83	38.3%
Grand Total	43.99	61.7%
Ave	3.67	
Count	12	

Vacant PDIP	GIS_ACRES
Hollymead Community	0.3
Hollymead Community	2.0
Hollymead Community	1.6
Hollymead Community	331.9
Total	335.8

Appendix C- GIS Data (con't)

Comp Plan #	GIS Acres	GIS Acres	% of Total
Hollymead C	7.98	Piney Mt. Com	7.46
Hollymead C	6.20	Piney Mt. Com	1.14
Hollymead C	7.66	Piney Mt. Com	0.81
Hollymead C	19.24	Piney Mt. Com	11.71
Hollymead C	0.89	Piney Mt. Com	4.19
Hollymead C	0.64	Piney Mt. Com	12.08
Hollymead C	0.52	Piney Mt. Com	26.94
Hollymead C	0.84	Piney Mt. Com	114.71
Hollymead C	1.19	Piney Mt. Com	3.98
Hollymead C	1.33	Piney Mt. Com	6.02
Hollymead C	1.20	Total	189.06
Hollymead C	2.77	Plc 29 Total	877.92 96.1%
Hollymead C	6.27	Plc 29- Ave	13.51
Hollymead C	6.19	Plc 29- Count	65
Hollymead C	2.94		
Hollymead C	2.24	Urban Area 4	0.16
Hollymead C	3.81	Urban Area 4	0.00
Hollymead C	0.17	Urban Area 4	0.13
Hollymead C	1.11	Urban Area 4	3.03
Hollymead C	0.30	Urban Area 4	0.98
Hollymead C	1.97	Urban Area 4	5.96
Hollymead C	6.41	Urban Area 4	1.06
Hollymead C	2.50	Urban Area 4	0.11
Hollymead C	2.62	Urban Area 4	0.42
Hollymead C	5.01	Urban Area 4	1.43
Hollymead C	3.49	Urban Area 4	1.40
Hollymead C	3.13	Urban Area 4	0.80
Hollymead C	6.17	Urban Area 4	1.06
Hollymead C	2.70	Urban Area 4	4.95
Hollymead C	3.53	Urban Area 4	1.99
Hollymead C	2.41	Urban Area 4	1.96
Hollymead C	3.40	Total	25.44 2.8%
Hollymead C	5.75	S.Area-Ave	1.59
Hollymead C	7.26	S.Area-Count	16
Hollymead C	2.48		
Hollymead C	27.61	Crozet District	6.69
Hollymead C	10.10	Crozet District	2.68
Hollymead C	5.84	Crozet District	0.69
Hollymead C	10.11	Crozet Total	10.06 1.1%
Hollymead C	5.30	Crzt-Ave	3.35
Hollymead C	2.51	Crzt-Count	3
Hollymead C	5.70		
Hollymead C	5.52	Grand total	913.4
Hollymead C	2.89	Grand Ave	10.87
Hollymead C	25.57	Grand Count	84
Hollymead C	0.69		
Hollymead C	17.69		
Hollymead C	10.00		
Hollymead C	34.45		
Hollymead C	5.33		
Hollymead C	10.18		
Hollymead C	14.70		
Hollymead C	4.90		
Hollymead C	331.81		
Hollymead C	25.66		
Total	688.9		

Appendix D -- Surveys

#A-1: What are positive reasons that inquiries come to the area, etc.?

A	Quality of life, kids, beautiful area, no traffic, small town living; “No comparison on the positives, since we might be the front runner.”
B	Quality of life defined by workforce education levels and skills
C	1) Quality of life, 2) Central to major transportation links, e.g. distribution operations. <u>Work force is not specifically cited</u>
D	Quality of life, UVA connection, natural beauty, educated work force. This area appeals to “organic growth, i.e., those companies who are growing locally. Reasons for why they are discouraged by this area 1) expensive to live, 2) lack of cheap labor, mainly day laborers. Survey participant suggested meeting with Wal-Mart distribution to confirm this opinion.
E	Good reputation for educated population in a beautiful area
F	Quality of life, def. as access to good health care, four seasons, less traffic
G	The Quality of life, including the health care provided by UVA and MJH; location affords ready access to mountains, DC, Richmond and the beach; and climate. It ranked pretty favorably among many ranking scales.

#A-2: How have governing bodies assisted you?

A	Stimart, TJPED available. With regard to zoning, Ron Higgins is very helpful, returning phone calls in 24hrs, meeting in 5 biz days. “You can get the facts pretty readily.”
B	County government has impeded projects, causing the loss of opportunities. The community would benefit from the County steam-lining development review & permitting.
C	VEDP resources, Mike Harvey with program resources working in partnership with others for site evaluation and comparison.
D	Not too much. Impediments to the approval process, process took too long. Additional fees are adversely impacting local company expansion since “it all adds up.”
E	<ul style="list-style-type: none"> • Business Development Facilitator assistance very helpful, opposite of planning which seem to be “nitpicky, and trying to control everything.” Survey participant cited her experience with an office project re-zoning that was held up by ARB over mortar colors. • What makes potential prospects want to leave is road blocks put in front of development. County services is the most important aspect; the staff could better guide the project; help remove obstacles, and inform the project for better design. The survey participant is looking for more partnership opportunity from staff.
F	They haven’t. There were two less-than-positive experiences. Review time is too long; ARB was also an impediment regarding sign color.
G	The County has never been favorable to business and users of light-industrial land. In her dealings with the State’s Economic Development Office (now called VEDP), inquiries have always identified Charlottesville in their top 3 picks but State staff has discouraged their interest – attesting that it is a waste of the prospect’s time. There is an appearance that the County won’t work with business applicants. It takes too long and it’s too expensive to open a business in Albemarle County. It’s much quicker and cheaper in adjacent counties.

#A-3: Can you describe your inquiries over the last 2 years (reflecting pre-recession and current recession markets)? Where did inquires finally locate? How many inquiries have you seen decide on a location outside of Albemarle County in the last 2 years (Spring 2007-2009)? Of these inquiries how many originated in Albemarle County?

A	Not many inquiries from out of town. More of the inquiries are local. Labor force availability more relevant in Louisa/Fluvanna. No inquiries in the last 6 mo from out of town. Local inquiries still there during recession – some bio-tech and manufacturing currently in growth mode. The majority of his inquiries are
---	---

	<p>“the little guy” – repair companies, (e.g. car repair companies, fire-truck engine repair). Because of either the cost of land or the zoning, these smaller companies look to the City for spaces for the local service types.</p> <p>Local inquiries locate in the City of Charlottesville. Out of Town inquiries look to Richmond or North Carolina. Approx. 10 out of 10 went outside the County, with Zion’s getting one. Of these inquiries, 3 out of 10 originated in Albemarle County.</p> <p>Main factors for location decisions to other jurisdictions:</p> <p>Cost of land, (\$300k vs. \$100k/ac in Zion’s Crossroads), cost of building, no sites, no buildings, time required for new construction, inadequate infrastructure, and perception of local workforce deficiencies.</p>
B	With the recession, inquiries have slowed down. Generally inquiries have originated locally, from the City and the County
C	<p>With the recession, no inquiries except NL Novalink and one distribution inquiry. All of her inquiries are in a holding pattern and are staying put.</p> <p>Though no specific number, she does recollect that there were location decisions for Louisa, Fluvanna and Waynesboro. Reasons for NOT choosing Albemarle County were 1) lack of product, 2) cost, 3) Lack of LI zoning with infrastructure, 4) Lack of a park. The example of Mill Creek is a good project for what we need in this community. Mill Creek offers a) access to Interstates and b) cohesion with neighbors.</p> <p>There is a lack of information on work force to counter act a perception of a lack of work force resources. Albemarle site location resources should help the companies understand the live/work relationships. Also I-64 is important in this equation, our community is able to pull in workers from Louisa and Staunton</p>
D	<p>A Bio-tech company looking for space smaller than Biotage. Lost a broadband telecom inquiry. Mainly, though, the growth has been steady, organic growth. He recommended I check in with a local company regarding work force issues.</p> <p>All local inquiries have originated and decided to locate here. External inquiries he wasn’t sure about and couldn’t give a number.</p>
E	Pre-recession inquiries looking for office & flex users (storage uses), start-ups looking to expand headquarters. She is unable to answer where the inquiries finally located. The last 12 months commercial leases are slow. Several non-renewals.
F	The number has dropped off with the recession. The inquiries have ranged from office to warehouse needs. Organic growth has located locally; some have opted to stay where they are. Currently, landlords are dropping rates. One inquiry located to Greene County for warehouse use.
G	<p>Inquiries are dried up now, but some previous inquiries included a potato chip company distribution operations; Technicolor (a clean/green operation); cigarette filter manufacturer (with ties to RJ Reynolds); and a book publishing company. Where did inquires finally locate? Greene, Orange, Richmond, and North Carolina.</p> <p>Many of the inquiries located outside of Albemarle County, as there is nothing available with infrastructure in Albemarle. Once inquiries came to Albemarle County the decisions to locate elsewhere were driven by a lack of sites with infrastructure, and the high cost.</p>

#A-4: [Anything else to share?](#)

A	Make new land available zoned LI, to exclude majority office space. Also allow truck repair in LI
B	Recommend improving the product listing in the VEDP “buildings & sites” database

C	His company would welcome the opportunity to participate with TJPED in identifying industry clusters and building/land needs
D	VEDP and its website resources not having an impact on lead generation. No site visits or inquiries generated by VEDP. Also developers need more flexibility within the approval process.
E	n/a
F	n/a
G	There is no high-quality light-industrial land for basic employment and industry, existing vacant LI missing infrastructure such as water, sewer and road connections to accommodate tractor-trailers. The County should develop its own park for basic industry connecting water, sewer, roads and rail access and pricing the lots at affordable rates. The County should also develop a shorter, cheaper review process, especially for smaller business expansions.

Appendix D – (con’t) - Industrial Land User Interview Surveys

#B-1: What are positive reasons that inquiries come to the area, etc.?

I	Partnership with UVA
J	Availability of skilled workforce, county participation, and quality of life.
K	<p>For jobs in advanced (high-tech) manufacturing, the lifestyle quality is a key factor for employee recruitment, performance and retention. An employment location should be easy to get and out, high-quality of life, able to accommodate outsiders coming in to spend money, easy to do business, easier to attract and hold young people. A good location offers the employee the ability to live and work in the same place; those same employees can work longer hours and young mothers can better manage day care.</p> <p>Negatives are the (high) land costs, increased separation between affordable housing and the job site, which starts to detract from jobs-housing balance, churches and quality shopping.</p> <p>Survey participant cautions not to lose manufacturing base in the core Charlottesville/Albemarle area. Every Friday staff participates in social events, inevitably supporting downtown mall and other local retailers.</p>
L	<p>STRENGTH of the market and population affluence. It’s a good market for the company’s services and products</p> <p>Factors against include 1) the difficulty of obtaining labor, the state gov’t (UVA) can offer better benefits than private industry making it more difficult for a small local company to recruit talent from UVA; 2) Albemarle is expensive area such as gas prices; and 3) harder to find supporting services in an industry that is equipment-intensive.</p>
M	<p>There is considerable history for the corporate manager, he first moved to this area in 1994 to work at Micro Aire, growing a sales team that he later took with him to operate a second enterprise. The specific reasons are more or less related to the fact that the workforce in this industry was here. All here readily appreciated the quality of life; this workforce divided among those living in Albemarle, Charlottesville, Greene County and Waynesboro.</p> <p>A second, equally important reason for growing the company is the close proximity to UVA, with important ties to the orthopedic and neurosurgical operations. It’s fairly easy to foster critical, health care-related business-partnerships in this region, than say, New York City.</p>

#B-2: How have governing bodies assisted you?

I	Workforce assistance (DBA, VEC), SBIR grants for research and development funding
J	The County has provided assistance by helping to identify county and state programs, providing business contacts, and helping us through permitting processes.

K	DBA grant funds, BDF support
L	<p>Instead of assistance, the governing bodies have had negative impacts, the negatives would be perpetual entanglement with various departments and unending list of requirements; everything is geared to the professional developer. There is no differentiation between large and small operations. Applicant feels that if we require them to be on certain types of land, the government needs to help. Process needs to be shorter and less expensive for those small-scale projects. Allow owner-operators to stay on their own land, beyond the scale allowed now. From survey participant's experience, at least \$20k engineering needed for a Rural to Development area move (not including a new building). It's was easy to fall victim to attitude of "Just take care of it" with the end result of the engineer "over-engineering" the project, and costing more money. The process requires an owner-applicant to micro-manage the engineer, and fight against what appear to be fairly arbitrary, over-regulation for a simple project. Greater flexibility is needed in small commercial-business projects; otherwise, a final site plan can co-opt or restrict decisions prematurely.</p> <p>Another challenge was getting the Planning Commissioners to listen, other departments also not prepared for small business. Real Estate assessment presented challenges. One approach to consider the County empowering a small business advocate; your planner should be your shepherd. The process can be exhausting and completely depleting of company resources. Rezoning became a part-time job (1-2 days per week). The corollary is if the County is going to require this type of expansion, they need to make the process easier, shorter, and cheaper to local small business that rely on equipment and materials storage, and vehicle storage</p>
M	The local government helped to frame their search for expanded, higher-quality space, by indicating the zoning appropriate for their operations in distributing medical and surgical instruments, to hospitals and clinics. The Zoning Code specifically calls out surgical instruments for LI zoning, limiting their choices of land and building to LI zoning, as they would not interested in pursuing a re-zoning due to the time need for the re-zoning process.

#B-3: Can you describe your search for space over the last 2 years (reflecting pre-recession and current recession markets)? What influenced your decision to locate in your existing space?

I	It was hard to find space. They originally occupied a small space on Harris Street, near Robert's Oxygen. They took over more space next door, as they grew. They eventually grew to 5,000Sf with 9' ceilings in the Harris Street location. They needed about 6 mo. transition time which a County location could offer. For this transition period, the rent was dropped in half (from 15/SF including utilities to \$7/SF). Also the new space saved them money by offering the "used furniture area" – comprised of left over furniture that could be used for free to building tenants. Their current space is also expandable. The current ratio is 1/3 office, 1/3 lab and 1/3 manufacturing. Utilities were an important feature of the building (probably due to previous tenant retrofits); the survey participant just switched to Comcast for 1/2 the price and 2x the speed.
J	<p>There has been an abundance of space available but finding the right space is always challenging. Most of the space has been basic warehouse or very purpose-built. In our particular case, our company growth has been explosive and our needs rather specific. We found additional space adjacent to our existing building to get us through the near term. The County put us in touch with the UVAF to begin discussions about a much larger purpose-built facility in the Research Park.</p> <p>The original building was just being built so we had there opportunity to take the entire space and do the initial build-out to our exact requirements. The facilities had the advantage of being in a quiet business park, and yet in close proximity to US-29.</p> <p>Business growth has been phenomenal and is forecasted to continue on a similar trajectory for the next 3-5 years. Our ideal scenario is to have a large building built within close proximity to our existing buildings so we can transition over without interruption in operations.</p>
K	Only one option was available. The company's business model required an existing building to retrofit, versus green-field. Multi-tenants feature helped alleviate pressure on capital resources. Regarding the existing vacant LI buildings, there is some question about an industrial property (with manufacturing history)

	regarding contamination of the well/Septic systems attributed to previous industrial activity. The Badger was fairly dusty and in disrepair, the company was operating at tight margin that prohibited investment in maintenance and upkeep.
L	Inadvertently, she bought at the top of the market. None of the LI land was affordable, so the next step was to look to residential that could be rezoned for the needed uses. The business-owner had outgrown the home-based business and had gotten a pretty good reception from most of the Community groups.
M	<p>The existing space was available in an aging business park, but it is not their ideal. It's too old and purpose-built, resulting in their spaces to be too chopped up. The older building does not provide the right corporate image for their operations, which are FDA-inspections of surgical instruments. They are in the process of securing a new, owner-occupied location in Zion's Crossroads. This operation requires 1.3 acres to build a new facility for the 11 or so employees. It will look like a new office building but will also allow the other core activities of warehouse, storage, and distribution.</p> <p>Other perspectives included Micro Aire's initial decision to locate leased space into Crozet's Acme building in 1994. The building was considered an adverse work environment, "offered a sewage smell" that a janitor addressed by periodically pouring an oil-like substance down the drain. They held Micro Aire corporate meetings with clients at the Boar's Head, to avoid showing the Acme property, while they built the Micro Aire building at the UVA Research Park. Micro Aire engaged in a partnership with UVA, with Darden and with the Engineering school, at the time that UVA began offering "bio-medical" engineering degree. Micro Aire partnered with UVA in advances in plastic surgery, orthopedic and neurosurgery, helping with grant writing. Close proximity and a relationship with UVA helped with attracting work force, it's a fairly easy to recruit UVA alumni who wanted to return to this area.</p>

#B-4: Is there anything else you would like to share with us?

I	n/a
J	We have all been so busy growing and trying to manage our growth that we've had little time for additional property searches and similar activities. It has been great that the county has been such a strong advocate for us and presenting us with resource options that we've not had the time to uncover
K	n/a
L	Just completed an expansion; and the market is there for expansion. With each expansion, infrastructure costs are expensive. For expansion, County should consider using an SP, rather than move a business.
M	n/a

Appendix E – Employment Forecast

	HISTORIC ANNUAL AVG. RATE OF CHANGE (%)		PROJECTED ANNUAL AVG RATE OF CHANGE (%)		COUNTY EMPLOYMENT 2008	COUNTY EMPLOYMENT 2018	08-18 growth (new employment)	2018 industrial like new employment
	Nat'l	County	Nat'l	Assumed Rate				
	1996-06	1990-06	2008-18	2009-18				
GOODS PRODUCING								
construction	3.3	3	1.7	1.7	3093	3661	568	568
manufacturing	-1.9	-5	-0.9	0.5	2943	3094	151	151
mining	1.1	-1	-1.6	0	44	44	0	0
SERVICE PROVIDING								
utilities	1.7	N/A	-1.1	0	0	0	0	0
wholesale trade	0.7	2	0.4	0.4	639	665	26	26
retail trade	0.8	4	0.4	0.4	5660			
information	0.4	7	0.4	1	658	720	62	31
trans & warehousing	1.3	4	0.9	0.9	678	742	64	64
finance activities	1.8	4	0.7	0.7	870	951	81	
prof & business services	2.7	11	2.1	2.1	2936	3614	678	339
education services	3.5	6	2.4	2.4	680	862	182	
health care & soc. assist	2.5	10	2.3	4	4549	6733	2184	2184
leisure & hospitality	2	1	0.8	0.8	3402	3684	282	
other	1.4	2	1	1.2	1792	1995	203	
Total gov't								
Federal gov't	-0.5	6	0.3	1	687	758	71	
state & local gov't	1.5	1(St) 3 (Lo)	0.8 0.3	0.5 0.3	11,459 (St) 3756 (Lo)	12,045 3870	586 114	
AG/FOR, FISHING, & agriculture wage&salary	-2.4	0	-0.4	0	487	487	0	0
ag self-employed and	-1.3	N/A	0	0	0	0	0	0
	-3.7	N/A	-0.9	0	0	0	0	0
TOTAL						43925	5252	3363

The general “industrial land needs assessment uses a basic approach of assessing employment growth in relevant employment sectors, applies a typical building square footage/employee ratio to that employment estimate, and then applies a typical square footage/acre ratio to identify an acreage amount needed for that total employment projection. A market flexibility factor is applied to the total the amount of land needed to provide a market flexibility factor-to ensure sufficient land is available in the market to accommodate the anticipated growth. The flexibility factors applied were from two times the anticipated demand to four times the anticipated demand to create a range of land needed. The Bureau of Economic Analysis National Average Annual Growth Rate Projections were used for employment sector growth with some adjustment for local conditions and experiences.

.5% used to indicate desire to accommodate a small/mod amt of growth in manufacturing

No info available for confidentiality reasons (utilities)

1% to reflect stronger historic and projected growth in this sector locally (*assumed approx 1/2 of new employment attributable to ind. land needs)

(*assumed approx 1/2 of new employment is attributable to ind land needs)

4% to reflect strong presence of health care in local economy

1% ann. growth rate (Fed) used to reflect presense of new military facility.

SQ. FT. PER EMPLOYEE

275 sq ft per employ 350 sq ft per employ 400 sq ft per employ

BLDG. SQ. FT. PER ACRE

10,000 bldg. sq. ft. per acre 12,500 bldg. sq. ft. per acre 15,000 bldg. sq. ft. per acre

FLEXIBILITY FACTOR

At **two times** anticipated demand: 184 -250 acres
 At **four times** anticipated demand: 184 -250 acres (10,000 Sf/ac.)
 (full calculations available on request)