

# ***The Diag at Kent:***

**Residential and retail mixed use development  
focused on the pedestrian.**



**A Social Neighborhood  
In a Cultural Community**

A proposed development plan

Prepared for Dr. Robert A. Simons  
as partial requirement for UST 710 –

Real Estate Development & Market Analysis

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December 11, 2011

## 1. Executive Summary

The subject property is 3.75 acres in area and is located in Portage County in the City of Kent. The street address is 322 South Lincoln St, Kent, Ohio 44240. Figure 1 presents an area map with a detail of the subject property location.

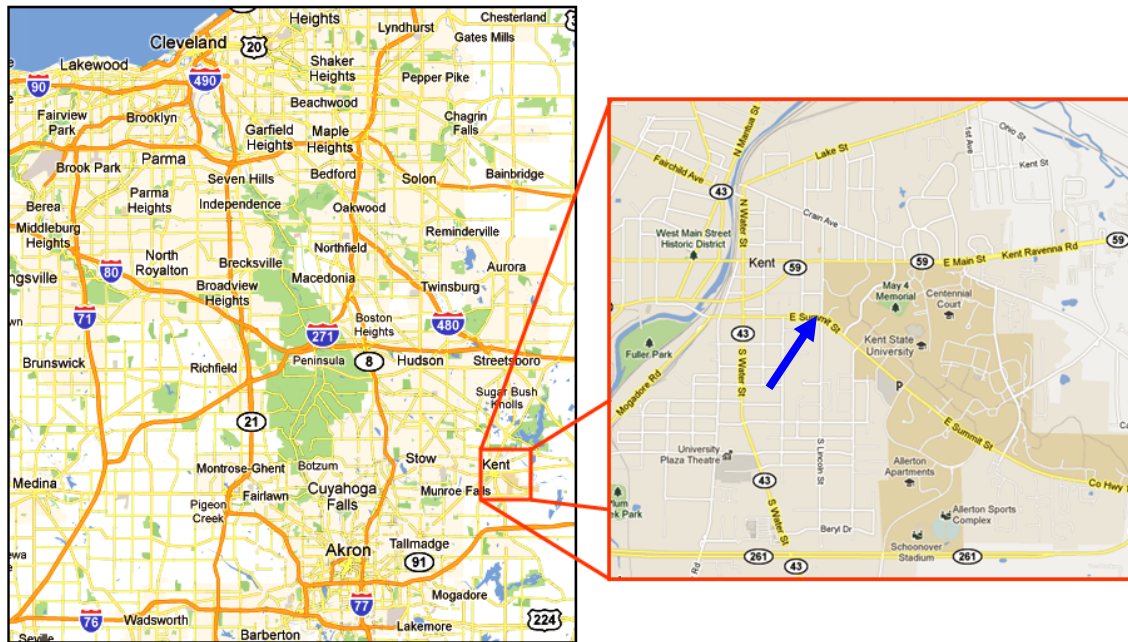


Figure 1: Area map with detail of Kent, Ohio. Blue arrow indicates location of subject property (Maps source: Google Maps).

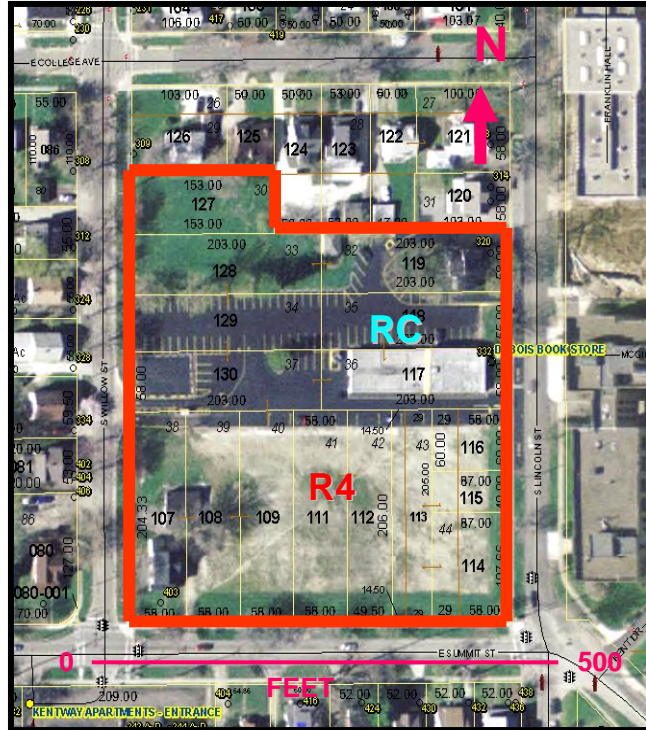
The project concept relies on the strategic location of the subject property and its proximity to Kent State University. It is designed to compliment and take advantage of the large volume of pedestrian traffic that moves between the Kent State campus and downtown Kent. This benefit will increase with the planned expansion of the pedestrian walkway called the Esplanade that connects the college campus with downtown Kent. Because of the subject parcel's location it is apparent that the highest and best use of the property will take advantage of the pedestrian access to employment, education and cultural opportunities.

The project concept combines high quality residential townhomes and rental apartments with a minor component of retail in a design that creates a deliberate connection between the university campus and the adjacent neighborhood. The site also calls for an architectural design that compliments both the buildings of the university and those of the residential neighborhood.

Currently the subject property contains a 7,000 square foot vacant building, which was formerly a bookstore, with a parking lot. Approximately  $\frac{1}{2}$  of the land is open ground, however as many as 15 residential houses have been demolished from the site over a span of 50 years. It is currently not know how

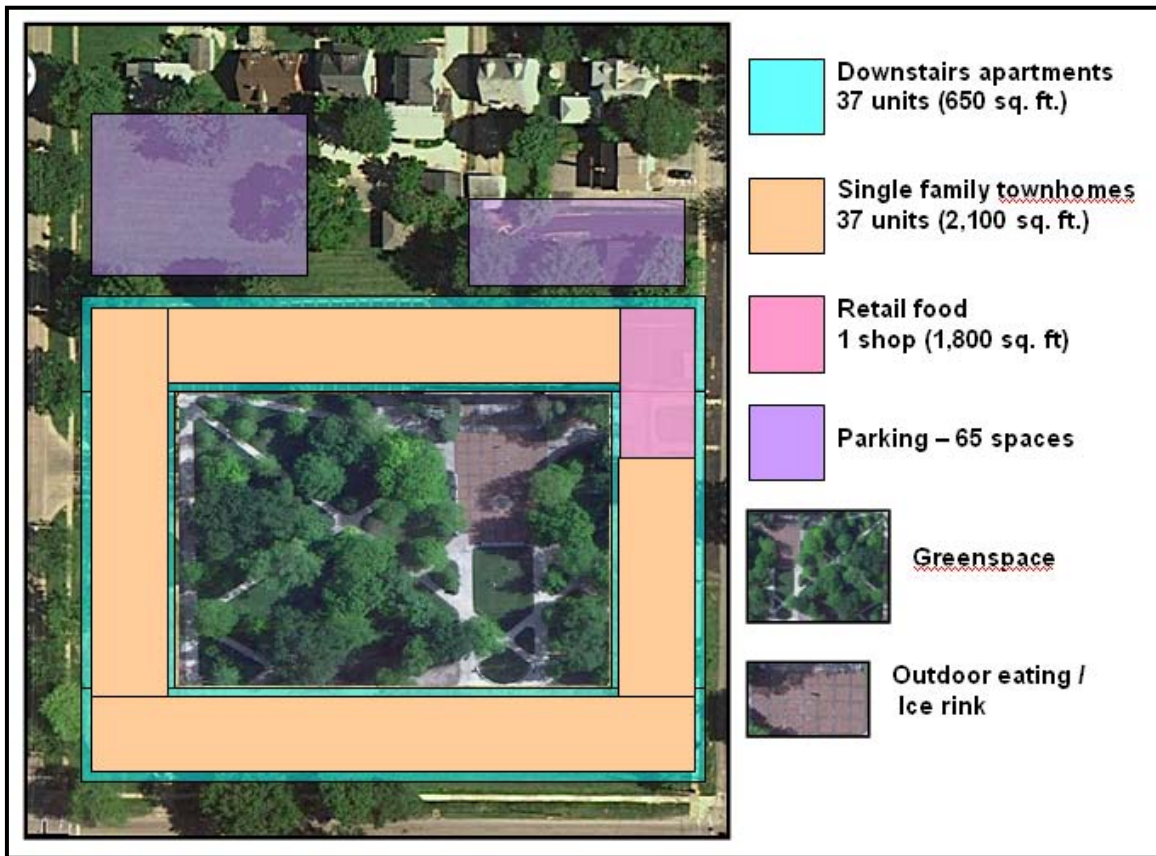
much if any of the building debris is buried on site, an unknown variable that could impact site preparation costs. There are no other known environmental or brownfield concerns. Figure 2 shows an aerial photo of the subject property with parcel boundaries and zoning classifications.

*Figure 2: The subject parcel is comprised of 16 individual parcels under the same ownership. Three parcels are zoned as High Density Multifamily – Commercial (RC) and the remaining parcels are zoned as Multifamily Residential (R4). The houses that appear in southwest corner of this 2006 aerial photo have since been removed. Source: Portage County Auditor GIS Viewer website: <http://www.co.portage.oh.us/viewer/>*



Approximately  $\frac{3}{4}$  of an acre of the subject property is currently zoned as High Density Multifamily – Commercial (RC), which allows a mix of residential and commercial land uses. The remaining land on the property is zoned as Multifamily Residential (R4), which allows for single-family, two-family, and multi-family dwellings at a maximum density of 36 units per acre.

The proposed development is a combination of high quality three-story attached townhouses that are each 2,100 square feet in area. The first story of each townhouse includes a 400 square foot garage plus a 650 square foot rental apartment. In addition to the residential spaces there will be one retail space of 2,100 square feet, which will be used for a sit-down restaurant designed to take advantage of the pedestrian traffic. The distinctive feature of this development is the architecture, the arrangement of the buildings, and the integration of green space. The inspiration for the architecture of the townhouses comes from the traditional row house and brownstone neighborhoods found in Boston, Washington DC, and Chicago, and the configuration of the townhouses around a well-landscaped greenspace comes from the central courtyards or “diags” found in many college campuses. Figure 3 presents the proposed layout of the townhouses, apartments, retail space, parking lots and greenspace overlaid on the subject parcel.



*Figure 3: The diagonal walkways of the well-landscaped central greenspace are framed by the townhouses and first floor apartments in this proposed design. (Source of aerial imagery: Portage County Assessor GIS web page.)*

The demographics for the community are interesting and complex. Kent State University is the driving economic engine for the City of Kent, and the presence of the university strongly influences the population and spending power of the residents. According to the U.S. Census Bureau, the official population of the City of Kent is almost 29,000. But on any given day during the week the number of people in the city is much higher due to the almost 27,000 students attending Kent State. Because of the sizable student population it is not surprising to see a wide range of rental properties including high-end apartment complexes to low end houses that have been subdivided into rental efficiencies. However the single family residential neighborhoods surrounding the Kent State campus have very few options for new houses or higher quality construction. The availability of high-end multifamily townhouses within walking distance of the Kent State University campus and downtown Kent is essentially nonexistent.

A residential market niche analysis was performed that found a glut of available houses in the range of values between \$75,000 and \$225,000 and a shortage in the value range of \$225,000 and above. This analysis suggests that there

should be a market for higher-value townhouses within Kent, particularly in areas close to the Kent State campus.

To test the economic feasibility of moving forward with the proposed development two front door / back door analyses were prepared; the first assumed that all of the development would be “for sale” townhouses, and the second assumed that the development would be “for rent” townhouses.

The following assumptions were used in the front door /back door analyses:

- Acquisition of property = \$750,000 (\$200,000 / acre – includes building)
- Construction costs = \$130 / sq ft plus 20% soft costs
- Total acquisition, demolition, construction & soft costs = \$19,465,200
- Discount rate = 9.5%
- Loan to Value = 75%
- Debt to coverage ratio = 1.25
- Annual interest rate = 8%

Starting with the assumption that all of the townhouses would be sold within 2 years it was unnecessary to fully consider interest rates and loan to value ratios. A quick look at the total land acquisition, demolition, construction and soft costs reveals that in order to simply break even each townhouse would have to sell for in excess of \$526,000. Is this reasonable? Probably not.

Starting with the assumption that all of the residential spaces would be rental properties, a front door / back door analysis was performed. Tables 1a, 1b, and 1c present the results of that analysis. The front door / back door analysis suggests that the cost of the project, including land acquisition and site preparation, construction and financing are prohibitively high given the expected reasonable rental rates for this market; therefore the initial decision is that this project is a **NO GO**. Some combination of lowering costs and/or increasing prices and rents must be discovered if a reasonable profit is to be made including:

- Reduce purchase price for property
- Find tax incentives and/or grants
- Pre-sell some units to Kent State for visiting faculty housing (raise equity)
- Reduce construction costs
- Reduce size of individual townhouses but squeeze more units into space
- Charge less per townhouse but more per square foot
- Be willing to accept lower return
- Find lower lending rates

While the initial NO GO verdict is wise given the amount of information that is currently available, an on-going investigation that begins with seeking an option on the property may yield considerable future paybacks to the investment.

Residential Front Door Back Door Analysis - Kent townhouses & apartments (Rent both)			
ASSUMPTIONS	monthly	yearly	37 townhouses @2,100 sq ft + 37 apts @650 sq ft + 1 restaurant @ 2,100 sq ft
Lot size (sq ft)			163350
Townhouse units			37
Townhouse building size			77700
Apartment units			37
Apartment building size			24,050
Restaurant size			2,100
Rent - apartments	\$ 28,860	\$ 346,320	\$ 346,320
Rent - townhouses	\$ 77,700	\$ 932,400	\$ 932,400
Lease - restaurant	2,958	35,490	35,490
proptax(per foot)		\$ 1	\$ 103,850
Apartment & townhouse operating expenses(per foot)	0.1322751	\$ 2	\$ 207,700
vacancy		10%	\$ 127,872
discount rate (ROR) = annual cash flow to developer	9.5%		
Land Value			\$ 750,000
Hard cost(per foot) - Building construction	\$130		\$ 13,500,500
Soft cost - construction	20%		\$ 2,700,100
Grants?	\$0		\$ -
Total cost			\$ 16,950,600
cap rate	0.1		
Loan to Value	75%		
Mortgage constant	0.093678779		
Year	25		
Debt to coverage ratio	1.25		
Interest rate annual	8.00%		

FRONT DOOR			
Market Driven Approach			how calculated
Gross annual potential Income	\$1,314,210		sum of sales
vacancy	\$127,872		sum of apt rents + rest. lease
Effective Gross income	\$1,186,338		vacancy of apartments
proptax	\$103,850		net revenues
Operating Expenses	\$207,700		less expenses for apts
NOI	\$874,788		net operating income
Annual Debt Service	\$699,830		NOI/1.25 DSC
before tax annual cash flow	\$174,958		BTCF=NOI-Debt service
equity investment	\$1,841,659		annual cash flow/ROR
Annual Debt Service	\$699,830		NOI/1.25 DSC
debt service constant	0.093678779		debt service/constant
Mortgage Amount	\$7,470,533		Equity + mortgage
Justified project investment	\$9,312,192		
actual project cost	\$16,950,600		
Justified project investment	\$9,312,192		
gap	-\$7,638,408		Do Not Invest

Table 1a  
(above):  
Assumptions and  
estimated costs  
used in the front  
door / back door  
analysis.

Tables 1b (left):  
The front door –  
market driven  
analysis for the  
proposed  
development.

BACKDOOR		
<b>Cost-Driven Approach</b>		
Site	\$ 750,000	
Hard cost	\$ 13,500,500	
Soft cost - construction	\$ 2,700,100	
Total capital budget	\$ 16,950,600	sum of cost
Required Equity (0.25)	\$ 4,237,650	total capital budget *equity
required annual cash flow	\$ 402,577	ROR*Equity
Mortgage amount	\$ 12,712,950	total budget *LTV
Annual debt service	\$ 1,190,934	mortgage amount *constant
NOI	\$ 1,593,510	annual cash flow+debt service
Operating Expenses	\$ 207,700	
proptax	\$ 103,850	
Effective Gross income	\$ 1,905,060	
vacancy	\$ 127,872	
Gross annual potential Income	\$ 2,032,932	
convert to monthly rent /120/12		
required revenues to justify cost:	\$ 2,289	gross annual potential income/unit(month)
actual monthly rent	\$ 1,440	actual monthly rent
rent gap	\$ 849	
Justified project investment	\$9,312,192	<==from rents
Total capital Budget	\$16,950,600	<==from costs
Gap	(\$7,638,408)	Do Not Invest

Tables 1c (above): The back door – cost driven analysis for the proposed development.

## 2. Project Concept, with Area map and competitive influences:

The subject property is located in Portage County in the City of Kent. The street address is 322 South Lincoln St, Kent, Ohio 44240. Figure 1 presents an area map with a detail of the subject property location.

The population of the City of Kent is approximately 28,900 (source: 2010 U.S. Census), but the daily number of people within the city is much larger than that. This is due to the presence of Kent State University, which has a student enrollment of over 26,900 at the Kent campus (source: Kent State University Fall 2011 enrollment report).

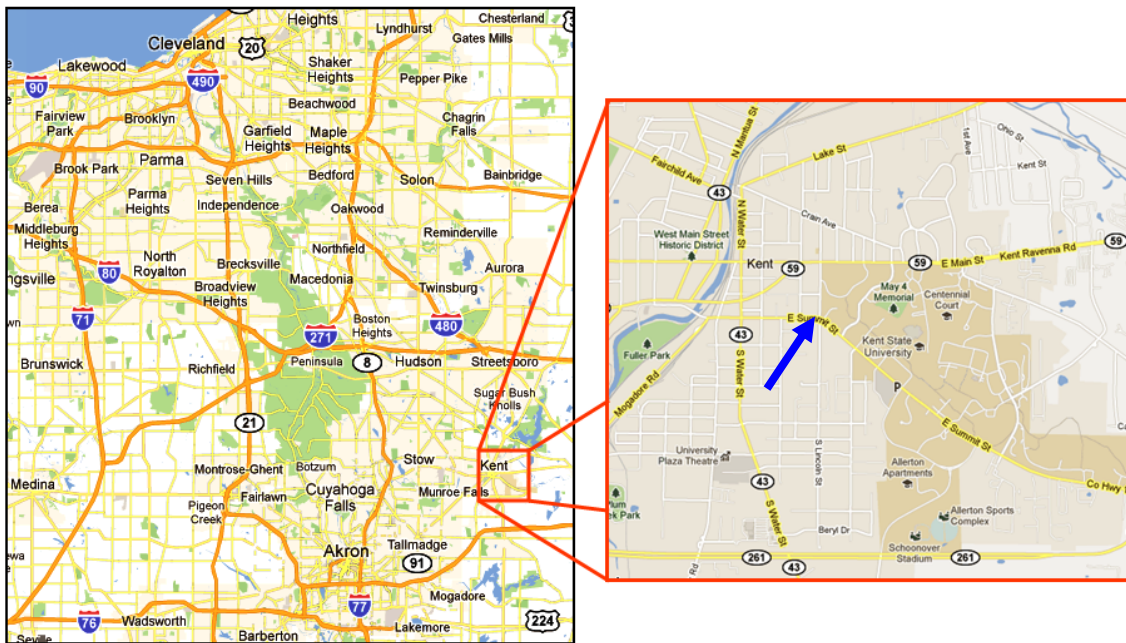


Figure 1: Area map with detail of Kent, Ohio. Blue arrow indicates location of subject property (Maps source: Google Maps).

The project concept takes advantage of the strategic location of the subject property and its proximity to Kent State. Unlike most development projects that focus on visibility and accessibility to automobile traffic, this project is designed to compliment and take advantage of the large volume of pedestrian traffic that moves between the Kent State University campus and downtown Kent. As such, the market analysis for the subject property must take a slightly different perspective in determining the viability of the project concept.

The project concept combines multi-family residential with a minor component of retail in a design that creates a deliberate connection between the university campus and the adjacent neighborhood. This connectivity is taking place on a larger scale immediately north of the subject property as the university has been methodically buying up aging residential properties that lie between the

northwest corner of the campus and the downtown Kent retail stores. The main pedestrian pathway through the Kent State campus is called the Esplanade, an area that has been graced with sculptures and high quality landscaping to enhance the walking experience. Included in the Esplanade walkway is the May 4 memorial site, which honors the four Kent State students killed in 1970 during clashes between National Guardsmen and Vietnam War protesters.

As recently as September, 2011 the university spent \$2.2 million to acquire 7 more residential properties to compliment more than 2 dozen previously acquired properties directly to the north of the subject property. The pedestrian-friendly Esplanade will be extended into downtown Kent where an impressive amount of development is underway. Fairmount Properties has worked closely with Kent State University and the City of Kent to design a “new and exciting \$75+ million pedestrian scaled, mixed-use ‘College-Town’ district.” According to the Fairmount Properties website (fairmountproperties.com) the new district is “located in Historic Downtown Kent and less than a 5 minute stroll along the KSU Esplanade extension (scheduled to open in 2012), this project will create a physical and contextual link between the KSU campus and downtown. Included in the project will be 49,000+ sq ft of engaging street level retail space including apparel, home, gift and specialty stores, new restaurants all with outdoor patio seating, residential units geared to young professionals as well as 74,000+ sq ft of new class A office space.” Figure 2 shows a portion of the downtown development that is near completion and a rendering of the office complex currently under construction.

With the location of the subject property so convenient to the main campus and to the promising new development that accentuates pedestrian travel it is logical to create a design that takes full advantage of these elements. However, strong competition in the student housing rental sector limits viable extension into that market. As will be explored later in this report the primary competitive influence comes from several new student housing apartment complexes that are currently under construction within a half mile of the subject property. Also, since the subject property is not located on a high-traffic street, the options for retail shops that



*Figure 2: Examples of new development in downtown Kent that mix retail and office space*



rely on high visibility and/or vehicle traffic (such as fast food restaurants with drive through windows) are limited. These challenges will be discussed at greater length in the highest and best use analysis.

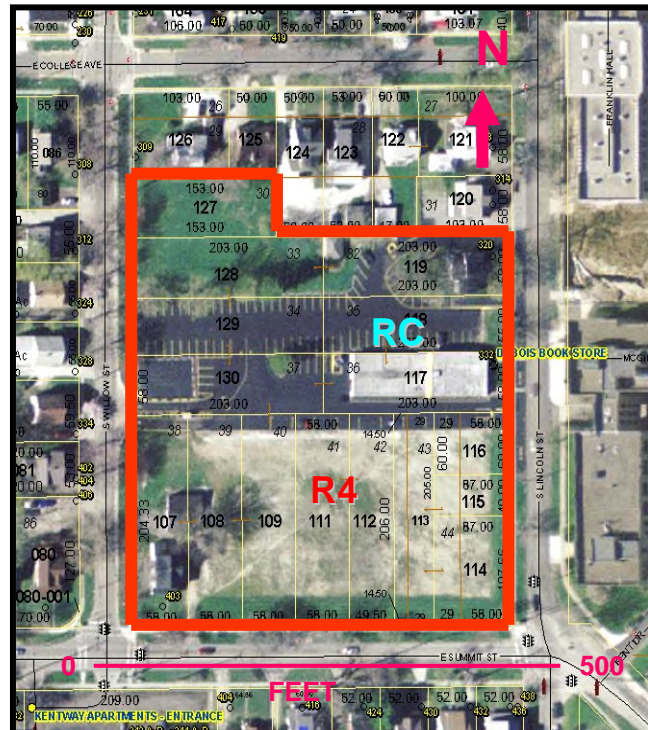
With these valuable opportunities tempered by realistic competitive influences it becomes apparent that a potentially viable development plan might call for high quality multi-family residential combined with a minor component of targeted retail. This will be tested in the highest and best use analysis. The site also calls for an architectural design that compliments both the buildings of the university and those of the residential neighborhood.

### 3. Rough Site layout, Map of parcels, size, attributes, statement of HBU for the use you are proposing.

#### The Current Property Condition

The subject property is bounded by South Lincoln Street to the east, East Summit Street to the south, South Willow Street to the west and several residential properties addressed to East College Avenue to the north. The subject property is 3.75 acres in area and is a collection of 16 individual parcels that are all owned by the DuBois family. About half of the site is open ground covered by rough turf, and approximately 1/3 of the area is a paved parking lot. There is one building on the site, which is a vacant former bookstore that is approximately 7,000 square feet of area. Figure 3 shows an aerial photo of the subject property with parcel boundaries and zoning classifications. Figure 4 presents photos of the subject property in its current condition.

*Figure 3: The subject parcel is comprised of 16 individual parcels under the same ownership. Three parcels are zoned as High Density Multifamily – Commercial (RC) and the remaining parcels are zoned as Multifamily Residential (R4). The houses that appear in southwest corner of this 2006 aerial photo have since been removed. Source: Portage County Auditor GIS Viewer website:  
<http://www.co.portage.oh.us/viewer/>*





*Figure 4: Panoramic view of subject property looking west to east toward Kent State University campus (above), and of the vacant DuBois bookstore as viewed from Lincoln Avenue looking northwest (right).*



The history of the property shows that in the 1950's the entire city block was occupied by single family homes. Sometime prior to 1970 several residential properties were acquired, the houses were removed, and the building that housed the bookstore and its parking lot were constructed. Over the next 40 years the DuBois family gradually acquired the remaining residential properties around the bookstore and demolished the houses (Figure 5). It is unknown whether the foundations of the original houses were removed or whether there is considerable rubble buried on the site. This is an issue that could impact development costs in the future.



*Figure 5: The 1970 aerial photograph (left) of the subject property shows the density of the houses that existed at that time. The 2010 aerial photo (right) illustrates that many of the residential properties have been acquired and the houses removed leaving most of the parcel open.*

Approximately  $\frac{3}{4}$  of an acre of the subject property is currently zoned as High Density Multifamily – Commercial (RC). According to the City of Kent zoning guide, this classification encourages “residential development at densities up to approximately 36 units per acre and allowing compatible commercial and office activities integrally designed into the neighborhood to provide optimum use of the land.” The former bookstore was operated under this zoning classification. The remaining land on the property is zoned as Multifamily Residential (R4). This classification allows for single-family, two-family, and multi-family dwellings at a maximum density of 36 units per acre.

Given the current zoning classifications, the previous uses, and most importantly considering the uses that will best compliment the university campus and the adjacent neighborhood, what is (are) the highest and best use(s) for future development? Table 1 presents a highest and best use matrix table that considers multiple attributes for eleven different potential land uses. The two highest and best land uses according to this analysis are residential single-family owned townhouses and residential apartment rentals. The potential for multi-family townhouses or row houses seems to be high if the proper residential sub-market can be identified. The potential for residential rental apartments would seem logical given the large student population, however the number of new student apartments opening within the next year indicates the competition among rental units will be very high. The highest and best use scores for a sit-down restaurant were also relatively high, which suggests that the proper type of restaurant might be incorporated into the design of the space.

The subject property is uniquely located relative to the university campus where walking is the primary mode of transportation, but the property does not benefit from being on a high-traffic road. Therefore the site seems better suited for residential than commercial land use. However a commercial component to the design that takes advantage of the heavy pedestrian traffic could prove to be very successful.

Table 1: Highest and best use matrix for Kent subject property.

CATEGORY	USE										
	Fast Food Restaurant	Sit-Down Restaurant	Gas Station / Conv Store	Small Strip / Retail	Residential Single Family own - Townhouse	Residential Single Family own - Detached	Residential apartment rent	Small Hotel / Conf Center	Training Facility	Parking lot	Banquet Hall
Visibility	-1	0	-2	-2	1	1	2	0	0	1	-1
Traffic Volume - Pedestrian	2	2	-2	1	2	2	2	2	2	0	2
Traffic Volume - Auto	-1	-1	-2	-1	0	0	0	-1	-1	2	-1
Competition	-2	0	0	-1	1	-1	-2	2	-2	2	-1
Parking	-1	-1	-1	-1	0	0	0	-1	0	2	0
Highway Access	-1	-1	-2	-2	0	0	0	-2	-1	-1	-1
Airport Access	0	0	0	0	0	0	0	-1	-1	0	0
Residential Base (Population & Income)	2	2	1	1	1	1	2	2	1	2	1
Skilled Labor	1	1	0	0	0	0	0	1	2	0	0
Unskilled Labor	2	2	2	2	0	0	0	2	1	2	2
Primary Demand Generator	0	0	0	0	0	0	0	2	1	0	1
Supports Other Businesses	1	2	0	1	1	0	1	1	1	1	1
Zoning	1	1	0	0	2	0	2	0	0	1	0
Infrastructure	1	1	0	0	2	2	2	0	0	0	0
Incompatible Land Use	-1	0	-2	-1	2	2	2	0	0	2	0
Size of Site	-1	0	2	0	2	2	2	1	1	0	0
Future Expansion (space)	1	1	0	0	0	0	0	0	0	0	0
Site Attributes (layout)	-1	1	-2	-1	2	1	2	1	1	1	0
Strategic Niche Filling	-1	0	-2	-1	1	0	1	1	0	0	1
Value of Built Space	-1	2	-1	-1	1	0	1	1	1	-2	1
Financial Window	0	0	0	0	1	0	1	1	1	0	0
Market Window	0	2	-2	0	0	0	1	1	1	0	1
<b>TOTALS</b>	<b>0</b>	<b>14</b>	<b>-13</b>	<b>-6</b>	<b>19</b>	<b>10</b>	<b>19</b>	<b>13</b>	<b>8</b>	<b>13</b>	<b>6</b>
Time Frame (short, med, long)	Short	Medium	Short	Med	Long	Long	Long	Long	Medium	Short	Medium

## The Proposed Development Design

The proposed development is a combination of high quality three-story attached townhouses that are each 2,100 square feet in area. The first story of each townhouse includes a 400 square foot garage plus a 650 square foot apartment that can be rented out as income property for the owners of the townhouses. The apartments could also be configured as finished basements for those townhouse owners who prefer to have the extra space.

In addition to the residential units there will be one retail space of 2,100 square feet. This will be used for a sit-down restaurant and bakery that specializes in breakfast and lunch meals, baked goods, coffees and teas similar to a Panera Bread shop. This particular type of restaurant should be quite successful given the high volume of pedestrian traffic in the area and the relative absence of quality restaurants that serve breakfast. (There is the usual assortment of fast food burger and sandwich shops within ½ mile along Ohio Route 59 to the north.)

The distinctive feature of this development is the architecture, the arrangement of the buildings, and the integration of green space. The inspiration of the design comes from the central courtyards or “diags” found in many college campuses. In this case the design idea comes from the University of Michigan Law Quad, which is a truly awe inspiring architectural space (figure 6).

*Figure 6:  
Inspiration for  
the proposed  
development  
comes from the  
University of  
Michigan Law  
Quad where  
superior  
architecture  
encloses a well-  
landscaped  
greenspace.*



Additional inspiration is drawn from the traditional row house and brownstone neighborhoods found in Boston, Washington DC, and Chicago. These structures combine the efficiency of shared-walls with the individuality of creative architecture that employs classic stonework (figure 7).



Figure 7: Quality architecture combined with durable masonry exteriors will compliment the nearby buildings on the university campus. These examples are found in Columbus, Ohio (left) and Chicago (right).

Figure 8 presents the proposed layout of the townhouses, apartments, retail space, parking lots and greenspace overlaid on the subject parcel.

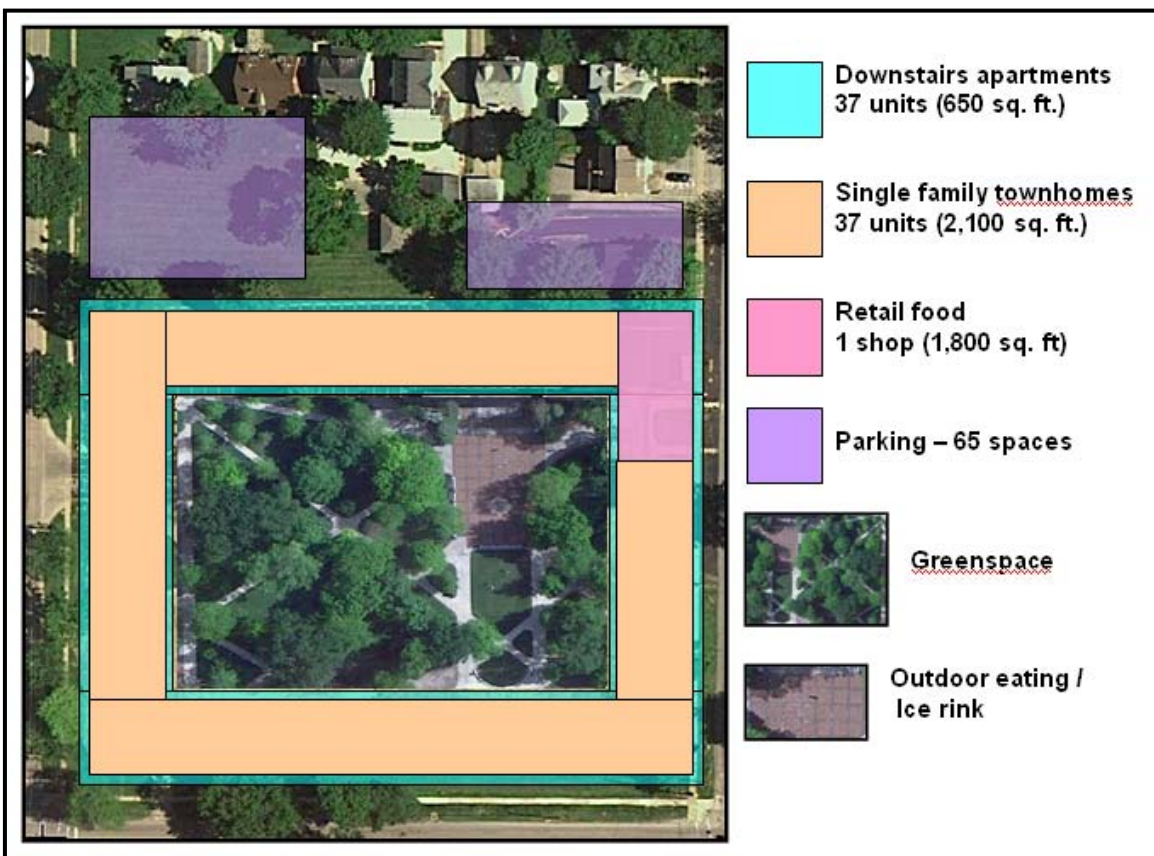


Figure 8: The diagonal walkways of the well-landscaped central greenspace are framed by the townhouses and first floor apartments in this proposed design. (Source of aerial imagery: Portage County Assessor GIS web page.)

An additional feature that draws its inspiration from Rockefeller Center in Manhattan and Millennium Park in Chicago will be an outdoor eating space that doubles as an ice rink during winter months. This extra amenity will draw patrons to the proposed restaurant and will serve as an additional connector between the development and the surrounding neighborhood.

The combination of multifamily residential units with focused retail seeks to compliment both the campus and the neighborhood that the development bridges. It is believed that this combination is the highest and best use for the subject property given its unique location along a heavily trafficked pedestrian route.

#### **4. Gravity Model showing PMA Map**

Since the retail space of this development is a minor component of the project, and since its success is thought to be dependent on the viability of the residential components, a retail gravity model was not performed. However the primary competitors to a sit down restaurant and bakery that provides breakfast and lunch menus include:

- Starbucks – Located less than ¼ mile to the north
- The Kent State Commons – Located on the Kent State campus in the Student Center, the Commons has several fast food restaurants including Subway and Einstein Brothers Bagels
- Route 59 retail strip – Located to the north of the subject property along Ohio State Route 59 is a string of fast food restaurants including most of the familiar brands (Wendy's, Burger King, Chipotle, etc.) These shops are all between ¼ and ½ mile from the subject property and within a 10 minute walk of most of the Kent State campus
- Downtown Kent retail shops – Located to the northwest of the subject property, but 10 minutes further away from campus than the subject property are several local and mostly non-franchise restaurants including a deli, a soup shop, and numerous bars that serve food

As will be described in the following sections, more attention was focused on the potential competition to the residential component of the proposed development. If the residential components of the development prove to be viable, a more intensive investigation of the retail principal market area including a gravity model will be conducted.

#### **5. PMA demographics and total income.**

The demographics for the community are interesting and complex. As discussed, Kent State University is the driving economic engine for the City of Kent, and the presence of the university strongly influences the population and spending power of the residents. According to the U.S. Census Bureau, the official population of the City of Kent is almost 29,000. But on any given day during the week the number of people in the city is much higher due to the number of students

attending Kent State. Of the almost 27,000 students enrolled at the main campus for the fall 2011 semester, more than 75% are commuters. Some of these students live off-campus within the city limits, but many drive in from outside of the city. As expected, the age profile for residents of Kent is highly skewed toward college-age students (figure 9).

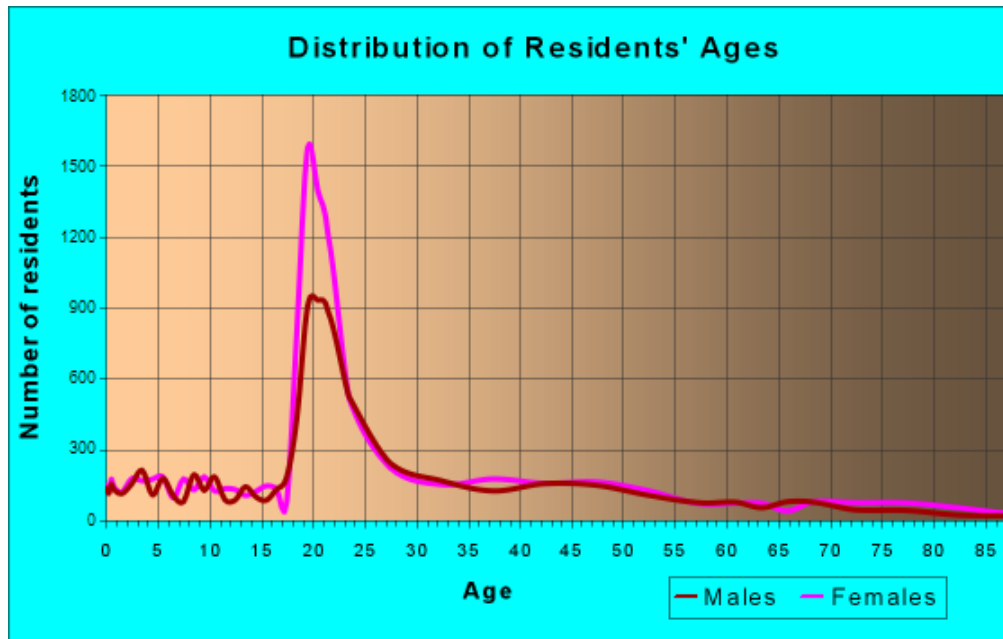


Figure 9: Age distribution for residents of the City of Kent, Ohio  
Source: CityData.com <http://www.city-data.com/housing/houses-Kent-Ohio.html>

Since the community population is composed of so many students, it is not surprising that the income of Kent residents is relatively low.

Because the proposed development focuses heavily on the influence of the Kent State University campus it is useful to narrow an investigation of demographics to those census tracts around the campus and the subject property. The primary value of the subject property's location is that a resident of the Diag at Kent can walk to most buildings on the Kent State Campus in 10 minutes or less. So the competition for such a multi-family housing development would also need to be within a reasonable (say 10 minute) walk to at least the edge of campus. But few locations would also be within a 10 minute walk of downtown Kent as well, as does the location of the subject property. Figure 10 presents maps of the census tract boundaries and of the area within a 10-minute walking radius of the boundaries of the Kent State campus. Understanding the demographics of these areas will be most important in steering a successful development plan for the project.

Figure 10 a (right): People interested in residing within a 10-minute walk of the Kent State campus would be drawn to the neighborhoods within the red polygon. The area within the green polygon is also within a 10-minute walk of downtown, including the subject property (blue arrow).

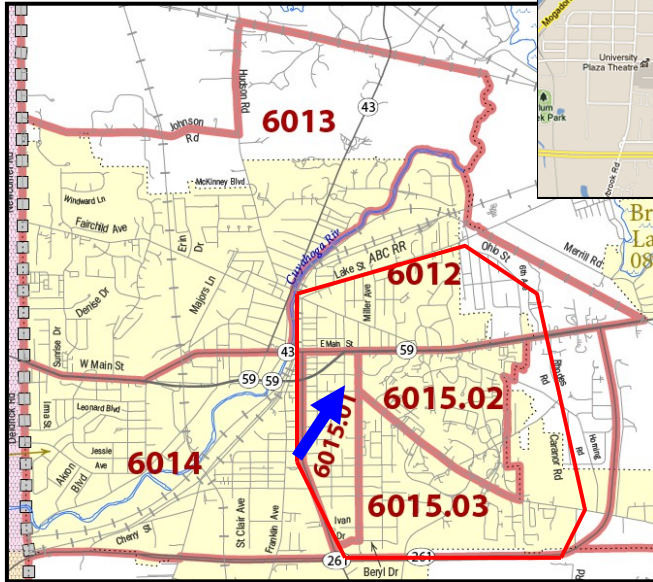
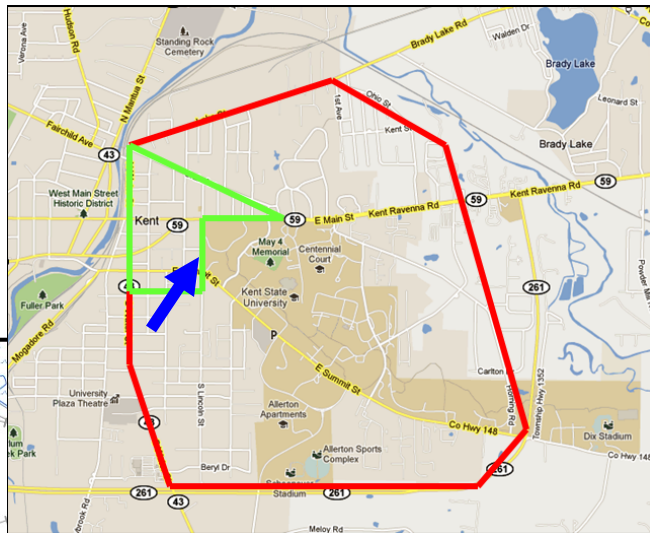


Figure 10 b (left): The boundaries of the census tracts that include the Kent State campus and subject property (blue arrow) are shown in purple. The 10-minute walking radius around the Kent State campus is shown in red. The demographics from the population of these census tracts are important for conducting a residential market analysis.

Table 2 presents a summary of the racial and ethnic make-up of the population within the six census tracts that include the Kent State campus, the subject property, the Kent downtown area, and the surrounding neighborhoods. These are the areas that would be of most interest to prospective residential buyers who are interested in living close to the Ken State campus and who would be drawn to the Diag at Kent.

Table 3 presents the housing characteristics for households within these same census tracts. It is interesting to note that the statewide Ohio housing vacancy rate in 2010 was 9.1 %, and that the vacancy rates in each of the six census tracts around the subject parcel(except on the Kent State campus) were lower than the state average. As expected, housing around the university campus is in greater demand than in most other areas. The income demographics for the households within Kent will be discussed in the residential niche analysis section.

CENSUS TRACT	6012		6013		6014		6015.01		6015.02		6015.03		Total	
RACE	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total population	4,930	100	6,899	100	4,584	100	2,118	100	7,117	100	4,402	100	30,050	100.0%
White	4,345	88.1	5,597	81.1	3,834	83.6	1,925	90.9	5,820	81.8	3,597	81.7	25,118	83.6%
Black or African American	260	5.3	895	13	417	9.1	91	4.3	747	10.5	356	8.1	2,766	9.2%
American Indian and Alaska Native	8	0.2	11	0.2	11	0.2	4	0.2	11	0.2	5	0.1	50	0.2%
Asian	156	3.2	140	2	146	3.2	38	1.8	314	4.4	308	7	1,102	3.7%
Asian Indian	41	0.8	25	0.4	34	0.7	13	0.6	91	1.3	43	1	247	0.8%
Chinese	84	1.7	49	0.7	34	0.7	7	0.3	138	1.9	196	4.5	508	1.7%
Hispanic or Latino (of any race)	114	2.3	94	1.4	108	2.4	44	2.1	231	3.2	88	2	679	2.3%

Table 2: Racial and ethnic make-up of the six census tracts that include the subject property (6015.01), the Kent State University campus (6015.02), and the surrounding neighborhoods. Source: U.S. Census Bureau 2010 ACS 3 year estimates.

CENSUS TRACT	6012		6013		6014		6015.01		6015.02		6015.03		Total	
HOUSING OCCUPANCY	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total housing units	2,322	100	3,012	100	2,325	100	971	100	1,081	100	1,972	100	11,683	48.1%
Occupied housing units	2,181	93.9	2,770	92	2,143	92.2	884	91	926	85.7	1,880	95.3	10,784	44.4%
Vacant housing units	141	6.1	242	8	182	7.8	87	9	155	14.3	92	4.7	899	3.7%
For rent	97	4.2	136	4.5	92	4	54	5.6	135	12.5	47	2.4	561	2.3%
Rented, not occupied	1	0	5	0.2	1	0	0	0	3	0.3	2	0.1	12	0.0%
For sale only	14	0.6	33	1.1	21	0.9	9	0.9	1	0.1	16	0.8	94	0.4%
Sold, not occupied	3	0.1	6	0.2	5	0.2	7	0.7	0	0	0	0	21	0.1%
For seasonal, recreational, or occasional use	8	0.3	24	0.8	6	0.3	1	0.1	0	0	6	0.3	45	0.2%
All other vacants	18	0.8	38	1.3	57	2.5	16	1.6	16	1.5	21	1.1	166	0.7%
													24,265	100.0%
Homeowner vacancy rate (percent)	1.7	(X)	1.9	(X)	2.3	(X)	2.5	(X)	16.7	(X)	3	(X)	28	
Rental vacancy rate (percent)	6.5	(X)	11	(X)	6.9	(X)	9	(X)	12.7	(X)	3.3	(X)	49	
HOUSING TENURE														
Occupied housing units	2,181	100	2,770	100	2,143	100	884	100	926	100	1,880	100	10,784	
Owner-occupied housing units	786	36	1,680	60.6	894	41.7	338	38.2	5	0.5	525	27.9	4,228	
Population in owner-occupied housing units	1,992	(X)	4,423	(X)	2,115	(X)	745	(X)	20	(X)	1,274	(X)	10,569	
Average household size of owner-occupied units	2.53	(X)	2.63	(X)	2.37	(X)	2.2	(X)	4	(X)	2.43	(X)	16	
Renter-occupied housing units	1,395	64	1,090	39.4	1,249	58.3	546	61.8	921	99.5	1,355	72.1	6,556	
Population in renter-occupied housing units	2,896	(X)	2,364	(X)	2,442	(X)	1,307	(X)	1,402	(X)	2,992	(X)	13,403	
Average household size of renter-occupied units	2.08	(X)	2.17	(X)	1.96	(X)	2.39	(X)	1.52	(X)	2.21	(X)	12	

Table 3: Housing demographics for the census tracts of interest. Source: U.S. Census Bureau 2010 ACS 3 year estimates.

## 6. Supply of retail within the PMA (windshield survey):

Because the main components of this proposed development plan are for residential land use an analysis of the retail Primary Market Area (PMA) will be left for the next phase of this study. It is appropriate however to comment on the residential resources within reasonable walking distance of downtown Kent and the Kent State University campus.

Because of the sizable student population it is not surprising to see a wide range of rental properties including high-end apartment complexes to low end houses that have been subdivided into rental efficiencies.

Within a half mile to the south of the subject property is a new student apartment complex that is in the initial stages of construction (figure 11). The complex, named “The Province” will have space to accommodate almost 600 residents. These apartments are on the luxurious side of what is considered average college student accommodations. Residents will have access to a swimming pool, health club, movie theater, and other amenities, and the apartments will be fully furnished. Rental rates will be between \$1.48 (for a four bedroom suite) and \$1.94 (for a solo apartment) per square foot per month. This information is useful for estimating expected apartment rental rates for the proposed development in this study.



*Figure 11: Construction site sign and artists rendering superimposed on an aerial image for The Province student apartment complex currently under construction. The red star indicates the subject property location. Source of illustration: The Province at Kent website [Kent.livetheprovince.com](http://Kent.livetheprovince.com)*

Within the previously described 10 minute walking radius from the Kent State campus there are no row houses or town houses that were designed to be “for sale” properties. There are some two-story apartments that are rental properties

that are advertised as townhouses, but they are not comparable with those envisioned for this development.

The nearest for-sale properties that are attached townhouses are to the northwest of downtown Kent, about 2 miles from the subject property and the northwestern corner of the Kent State campus. These were built in 2005, and each of the 14 attached townhouses is approximately 1,750 square feet of floor area. All except one are currently occupied, and the vacant unit is offered as a short sale for \$150,000 (\$86 / square ft). The construction and materials quality for these units is average for new suburban houses, with vinyl siding and brick trim (figure 12). The open space allocated to the development is very small.



*Figure 12: These townhouses were built in 2005 and have an average floor area of approximately 1,750 square feet. Located about 2 miles northwest of the subject property, they represent a very small collection of newer multifamily residential properties in the City of Kent.*

The single family residential neighborhoods surrounding the Kent State campus have very few options for new houses or higher quality construction. The houses are typically situated on 1/8 acre (5,445 square feet) to 1/3 acre (14,520 square feet) lots.

The availability of high-end multifamily townhouses within walking distance of the Kent State University campus and downtown Kent is essentially nonexistent.

## **7. Retail Market Niche Analysis**

Since the primary component of this proposed development is multifamily residential land use, a residential market niche analysis was performed, leaving the retail analysis until the next stage of planning. A residential market niche analysis begins with determining the household incomes within a defined market area. For this analysis the population of the City of Kent was considered. Annual household income ranges are established, then using the rule-of-thumb that reasonable affordable housing costs approximately 3 times the annual household income, affordable house ranges are defined. Then using the number of households within each income range the expected number of affordable houses is determined. This value is then compared to the actual value of housing stock in each range of affordable values. The result indicates the

surplus or shortage of available housing stock in each range of prices. Table 4 presents the findings of the residential market niche analysis.

**8. Conclusions of niche analysis, tenant mix, absorption, lease rates:**

From this analysis it is apparent that there is a glut of available houses in the range of values between \$75,000 and \$225,000. For example, in the household income range between \$35,000 and \$49,999 we would expect many of those residents to occupy houses in the value range of \$105,000 to \$149,999. According to the U.S. Census, 1,204 households reporting that income range reside in the City of Kent, yet there are also reportedly almost 2,500 houses in this value range. On the other hand, there are over 2,300 households with annual income of at least \$75,000 but only about 1,200 houses in the value range of \$225,000 and above. This indicates a shortage of high-end residential housing.

This analysis suggests that there should be a market for higher-value townhouses within Kent, particularly in areas close to the Kent State campus. How does this compare with the observed housing market? Figure 13 illustrates recent trends in Kent’s housing market. The “for sale” housing market in Kent is starting to rebound. The median home price is currently around \$120,000, which indicates there is a lot of lower quality housing stock in the city.

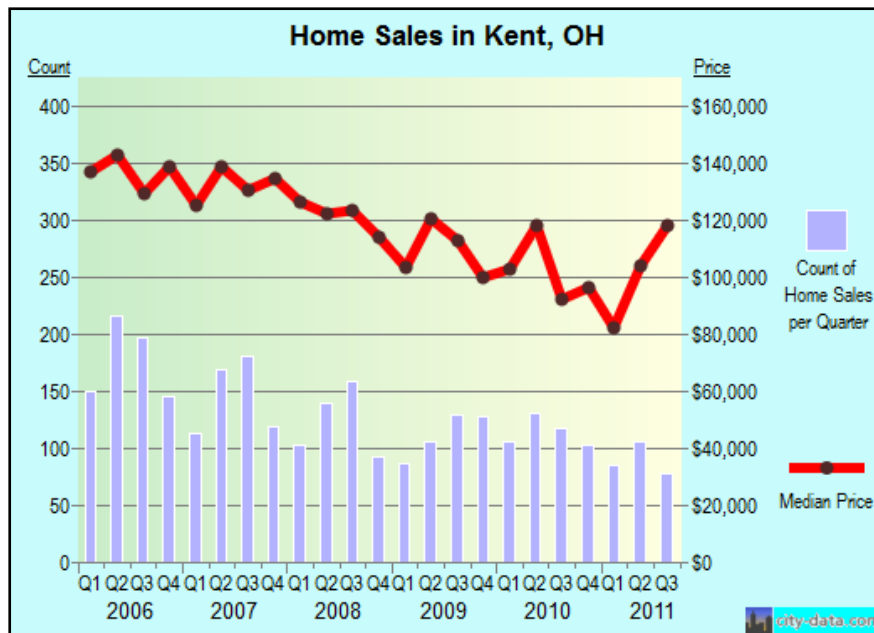


Figure 13: Home sales in Kent, Ohio since 2006. Source: CityData.com <http://www.city-data.com/housing/houses-Kent-Ohio.html>

HOUSEHOLD INCOME IN THE PAST 12 MONTHS (IN 2010 INFLATION-ADJUSTED DOLLARS)		Number of Households	Affordable House Range		Owner occupied	Renter occupied	Vacancy	Total Units	Net Demand
\$0	\$4,999	1032	\$0	\$14,999		1019	52	1071	-39
\$5,000	\$9,999	989	\$15,000	\$29,999		894	46	939	50
\$10,000	\$14,999	968	\$30,000	\$44,999	76	869	45	990	-22
\$15,000	\$19,999	925	\$45,000	\$59,999	165	781	42	988	-64
\$20,000	\$24,999	871	\$60,000	\$74,999	131	681	37	849	22
\$25,000	\$34,999	968	\$75,000	\$104,999	423	588	36	1046	-79
\$35,000	\$49,999	1204	\$105,000	\$149,999	1836	600	56	2492	-1288
\$50,000	\$74,999	1452	\$150,000	\$224,999	1080	450	38	1568	-117
\$75,000	\$99,999	1204	\$225,000	\$299,999	504	344	25	872	332
\$100,000	\$149,999	796	\$300,000	\$449,999	184	13	3	200	596
\$150,000	over \$150,000	333	\$450,000	over \$450,000	103	13	2	118	216
		10741			4502	6250	382	11134	-393
Source: U.S. Census Bureau 2008-2010 American Community Survey 3-Year Estimate									

Table 4: Residential market niche analysis for the City of Kent, which indicates an overabundance of housing in the value range of \$75,000 to \$224,999, but a shortage of housing in the value range of \$225,000 and above.

## **9. Caveats, limitations, potential fatal flaws. Any brownfields? Is land cost supportable?**

An initial idea of the financial feasibility of a proposed development may be determined through the construction of a Front Door / Back Door analysis. This type of analysis can be complex when considering mixed use that considers both “for sale” property and “for rent” property. Therefore to simplify the initial analysis, two front door / back door analyses were prepared; the first assumed that all of the development would be “for sale” townhouses, and the second assumed that the development would be “for rent” townhouses.

The following assumptions were used in the front door /back door analyses:

- Acquisition of property = \$750,000 (\$200,000 / acre – includes building)
- Construction costs = \$130 / sq ft plus 20% soft costs
- Total acquisition, demolition, construction & soft costs = \$19,465,200
- Discount rate = 9.5%
- Loan to Value = 75%
- Debt to coverage ratio = 1.25
- Annual interest rate = 8%

The \$200,000 per estimated cost to acquire the property may seem high. However the property that was acquired for the previously discussed “Province in Kent” student apartments cost \$108,000 per acre. This open property is not immediately adjacent to the Kent State campus and is farther away from downtown Kent than the subject property. It is apparent from the history of the subject property that the DuBois family was systematically acquiring adjacent residential properties with an anticipation that land values would increase. Therefore it is logical to expect a relatively high asking price. The property is not currently listed through a realtor as being for sale. Could it be that a relatively high asking price has prevented the university from acquiring this property even though it is adjacent to the area of planned extension for the Esplanade?

There is no historical evidence of brownfields or environmental problems, however it is apparent from the historical air photos that many houses were demolished on the subject property. It is possible that the rubble may be buried on site, which could considerably add to the cost of site preparation.

Starting with the assumption that all of the townhouses would be sold within 2 years it was unnecessary to fully consider interest rates and loan to value ratios. A quick look at the total land acquisition, demolition, construction and soft costs reveals that in order to simply break even each townhouse would have to sell for in excess of \$526,000. Is this reasonable? Probably not.

Starting with the assumption that all of the residential spaces would be rental properties, a front door / back door analysis was performed. Tables 5a, 5b, and 5c present the results of that analysis.

Residential Front Door Back Door Analysis - Kent townhouses & apartments (Rent both)			
ASSUMPTIONS	monthly	yearly	37 townhouses @2,100 sq ft + 37 apts @650 sq ft + 1 restaurant @ 2,100 sq ft
Lot size (sq ft)			163350
Townhouse units			37
Townhouse building size			77700
Apartment units			37
Apartment building size			24,050
Restaurant size			2,100
Rent - apartments	\$ 28,860	\$ 346,320	\$ 346,320
Rent - townhouses	\$ 77,700	\$ 932,400	\$ 932,400
Lease - restaurant	2,958	35,490	35,490
proptax(per foot)		\$ 1	\$ 103,850
Apartment & townhouse operating expenses(per foot)	0.1322751	\$ 2	\$ 207,700
vacancy		10%	\$ 127,872
discount rate (ROR) = annual cash flow to developer	9.5%		
Land Value			\$ 750,000
Hard cost(per foot) - Building construction	\$130		\$ 13,500,500
Soft cost - construction	20%		\$ 2,700,100
Grants?	\$0		\$ -
Total cost			\$ 16,950,600
cap rate	0.1		
Loan to Value	75%		
Mortgage constant	0.093678779		
Year	25		
Debt to coverage ratio	1.25		
Interest rate annual	8.00%		

FRONT DOOR			
<b>Market Driven Approach</b>			<b>how calculated</b>
Gross annual potential Income	\$1,314,210		<b>sum of sales</b>
vacancy	\$127,872		<b>sum of apt rents + rest. lease</b>
Effective Gross income	\$1,186,338		<b>vacancy of apartments</b>
proptax	\$103,850		<b>net revenues</b>
Operating Expenses	\$207,700		<b>less expenses for apts</b>
NOI	\$874,788		<b>net operating income</b>
Annual Debt Service	\$699,830		<b>NOI/1.25 DSC</b>
before tax annual cash flow	\$174,958		<b>BTCF=NOI-Debt service</b>
equity investment	\$1,841,659		<b>annual cash flow/ROR</b>
Annual Debt Service	\$699,830		<b>NOI/1.25 DSC</b>
debt service constant	0.093678779		<b>debt service/constant</b>
Mortgage Amount	\$7,470,533		
Justified project investment	\$9,312,192		<b>Equity + mortgage</b>
actual project cost	\$16,950,600		
Justified project investment	\$9,312,192		
gap	-\$7,638,408		<b>Do Not Invest</b>

Table 5a  
(above):  
Assumptions and  
estimated costs  
used in the front  
door / back door  
analysis.

Tables 5b (left):  
The front door –  
market driven  
analysis for the  
proposed  
development.

BACKDOOR		
<b>Cost-Driven Approach</b>		
Site	\$ 750,000	
Hard cost	\$ 13,500,500	
Soft cost - construction	\$ 2,700,100	
Total capital budget	\$ 16,950,600	sum of cost
Required Equity (0.25)		\$ 4,237,650
required annual cash flow	\$ 402,577	total capital budget *equity ROR*Equity
Mortgage amount		\$ 12,712,950
Annual debt service	\$ 1,190,934	total budget *LTV mortgage amount *constant
NOI		\$ 1,593,510
Operating Expenses	\$ 207,700	annual cash flow+debt service
proptax	\$ 103,850	
Effective Gross income	\$ 1,905,060	
vacancy	\$ 127,872	
Gross annual potential Income	\$ 2,032,932	
convert to monthly rent /120/12		
required revenues to justify cost:	\$ 2,289	gross annual potential income/unit(month)
actual monthly rent	\$ 1,440	actual monthly rent
rent gap	\$ 849	
Justified project investment	\$9,312,192	<==from rents
Total capital Budget	\$16,950,600	<==from costs
Gap	(\$7,638,408)	Do Not Invest

Tables 5c (above): The back door – cost driven analysis for the proposed development.

The front door / back door analysis suggests that the cost of the project, including land acquisition and site preparation, construction and financing are prohibitively high given the expected reasonable rental rates for this market. Some combination of lowering costs and/or increasing prices and rents must be discovered if a reasonable profit is to be made.

## 10. Recommendations as to proceeding with the project

The financial gap between the expected costs and the expected market selling prices and rental rates is too large to proceed with this development as originally conceived. Therefore the initial decision is that this project is a **NO GO**.

However the location of the subject parcel and the expected continued growth of the campus population make this development worthy of a second look. Some combination of reducing costs and/or increasing revenue could make a development on this site financially feasible with an acceptable level of risk.

Suggestions for further investigation include:

- Reduce purchase price for property
- Find tax incentives and/or grants
- Pre-sell some units to Kent State for visiting faculty housing (raise equity)

- Reduce construction costs
- Reduce size of individual townhouses but squeeze more units into space (up to 100)
- Charge less per townhouse but more per square foot
- Be willing to accept lower return
- Find lower lending rates

## **Conclusion**

The location of the subject parcel is the primary attribute that makes this development proposal attractive. The proximity to the Kent State campus and the downtown Kent retail district make this property ideal for the right type of development. The planned extension of the Esplanade walkway between downtown Kent and the Kent State campus emphasizes the need to tie the proposed development into the pedestrian focus of this neighborhood.

The desirable location of the property will certainly contribute to what is expected to be a relatively high acquisition cost. The unknown amount of house foundation masonry and demolition debris that may be buried on the site is a worrisome variable that may contribute to high site preparation costs. The very competitive market for student rental apartments may also influence the final design of the development.

The relative lack of high-end housing within Kent, particularly within walking distance of the campus and downtown district make this site prime for considering the construction of townhouses. Well-constructed homes using masonry and stonework that compliments the nearby university buildings seems to be logical. But the expected high acquisition price of the property combined with the high cost of quality building materials initially dampens the profitable enthusiasm for the project. While the initial NO GO verdict is wise given the amount of information that is currently available, an on-going investigation that begins with seeking an option on the property may yield considerable future paybacks to the investment.

**Acknowledgment: Thanks to Adam Branscomb of Fairmount Properties for reviewing this design and contributing insight and creativity.**