

elkhorn crossing

columbia, md

Location: 7248 Cradlerock Way, Columbia, MD

Presented by: Zack Hicks

Mentor: Tim Pula

Student Architects: Aren Knudsen,
Abby Winter, and Christiane Machado



OVERVIEW

- I. Current Site Overview
- II. Development Objectives
- III. Zoning
- IV. Market Analysis
- V. Project Features
- VI. Design
- VII. Stakeholder Benefits
- VIII. Financial Returns
- IX. Conclusion





SITE OVERVIEW



OWEN BROWN VILLAGE CENTER

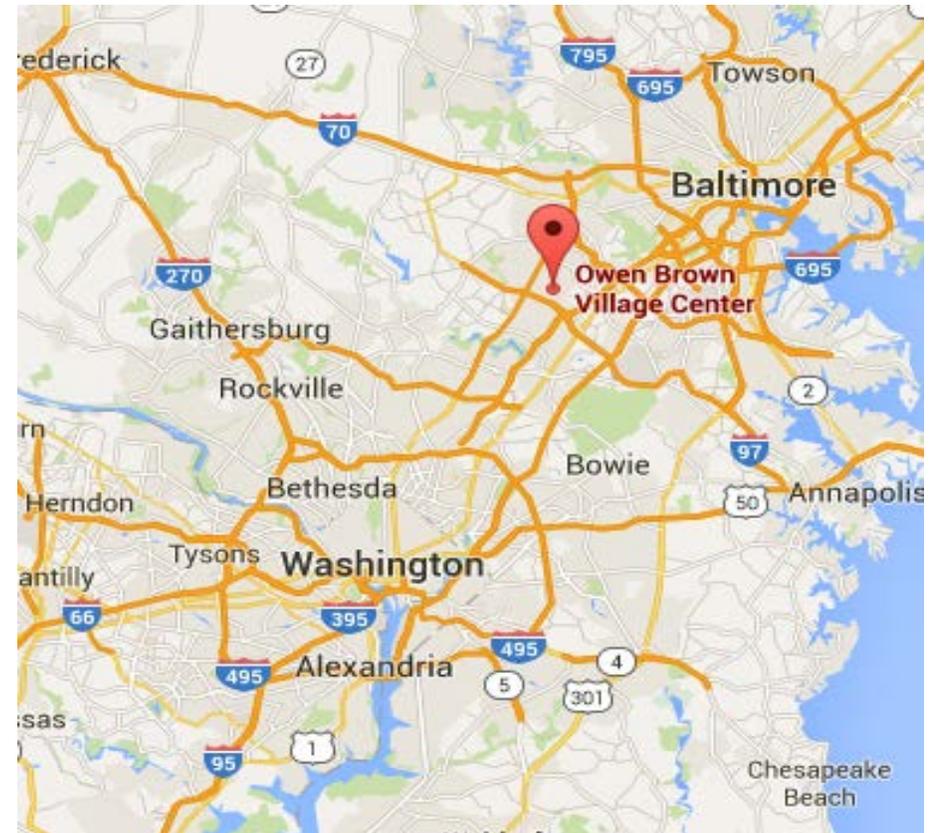


- 33.93 acres
- Fully leased
- Tenants: Giant, low-end retailers and restaurants, community-oriented services
- Underperforming shopping center

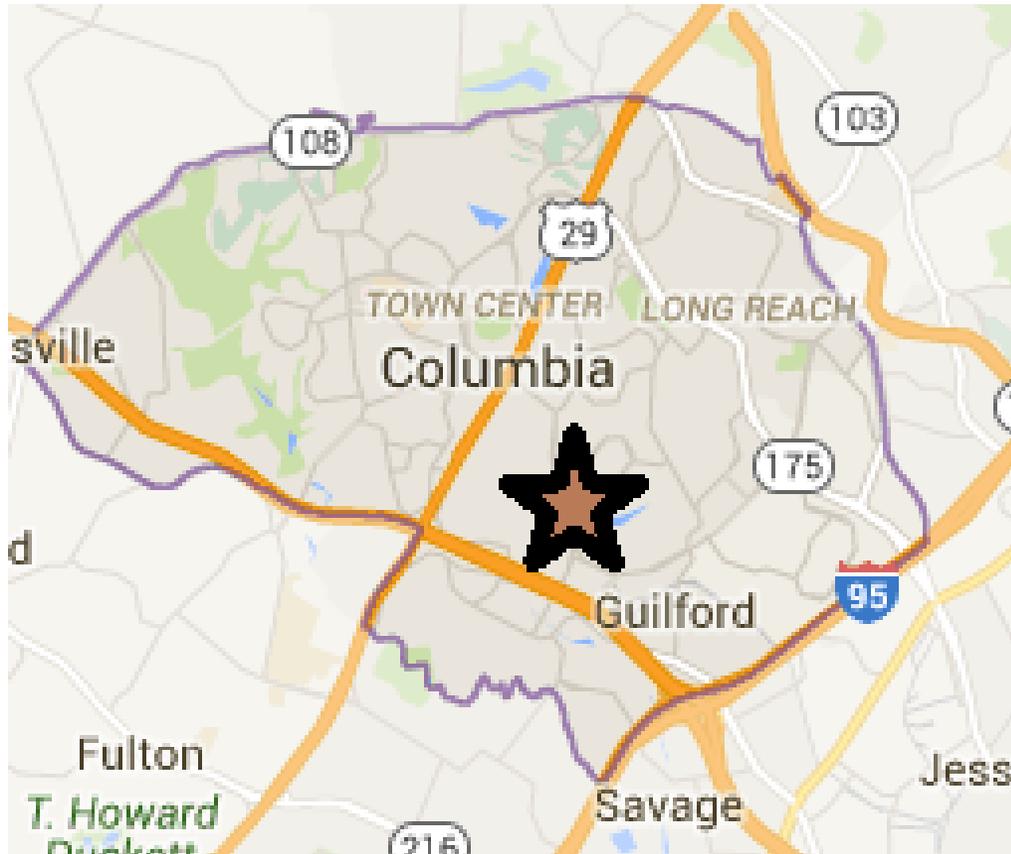


LOCATION IN THE REGION

- Near I-95, U.S. 29, and MD 32
- Easy access to BWI, Fort Meade
- 20 miles southwest of Baltimore CBD
- 30 miles northeast of Washington CBD



LOCATION IN COLUMBIA



- 2 miles from the Mall at Columbia
- 2 miles from Columbia Crossing
- Adjacent to Lake Elkhorn
- Extensive trail network in Columbia
- Infrequent bus service





DEVELOPMENT OBJECTIVES

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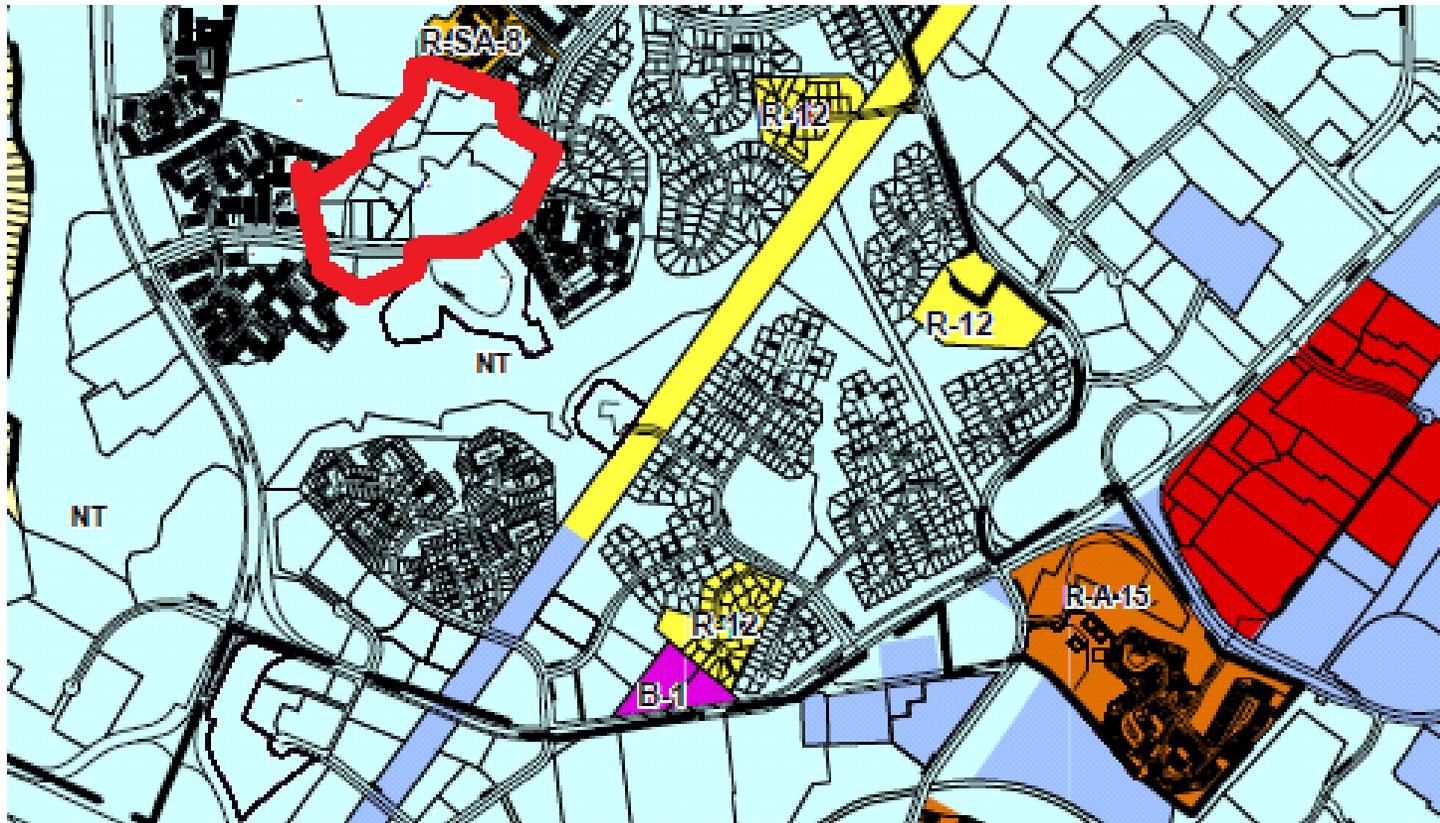
- Improve the viability of retail on the site
- Provide new residential options in Columbia
- Improve existing infrastructure on the site
- Capitalize on the site's location near Lake Elkhorn
- Transform a struggling shopping center into a community destination



ZONING



NEW TOWN DISTRICT



- Owen Brown Village Center is entirely within NT District
- NT Districts broadly defined
- Will be redefined in the coming years

Source: Howard County GIS





MARKET ANALYSIS



DEMOGRAPHICS

Columbia, MD

- 2014 population: 102,116
- Median household income: \$100,252
 - Maryland median household income: \$74,149
 - National median household income: \$53,482
- Poverty rate: 7%

Village of Owen Brown

- 2014 population: 9,602
- Median household income: \$95,889
 - 4.4% lower than Columbia median
- Poverty rate: 6.43%



HOWARD COUNTY EMPLOYMENT

- Labor force increased 20.5% from 2005-2015
- Unemployment rates
 - Howard County: **3.4%**
 - Maryland: 4.7%
 - National: 5.0%

Major Employers in Howard County, 2015

Rank	Company	Number Employed	Industry
1	Johns Hopkins University Applied Physics Laboratory	5,000	Professional Services
2	Lorien Health Systems	2,000	Health care
3	Howard County General Hospital	1,827	Health care
4	Howard Community College	1,438	Educational Services
5	Verizon	1,346	Information
6	Leidos	1,195	Professional Services
7	MICROS Systems	1,052	Professional Services
8	Coastal Sunbelt Produce	1,050	Manufacturing
9	Giant Food	1,050	Retail Trade
10	Wells Fargo	842	Finance and Insurance

Source: Maryland Department of Commerce





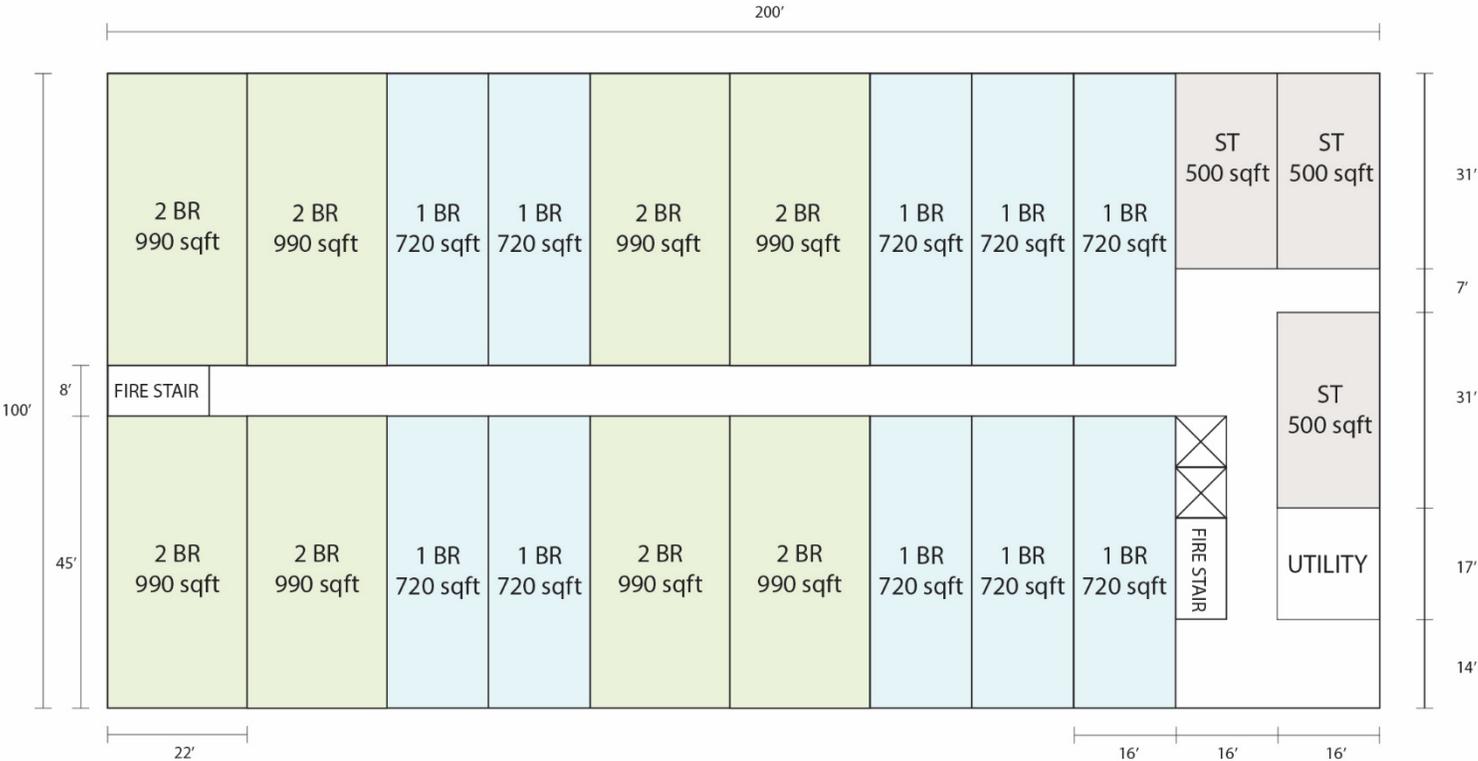
PROJECT FEATURES

BUILDING AMENITIES

- One of a few high-end market products in Columbia
- Retail amenities: specialty restaurants and shops, post office
- Residential amenities: rooftop pool, fitness center, green roofing, walk-in closets, washer/dryer, full-service kitchen



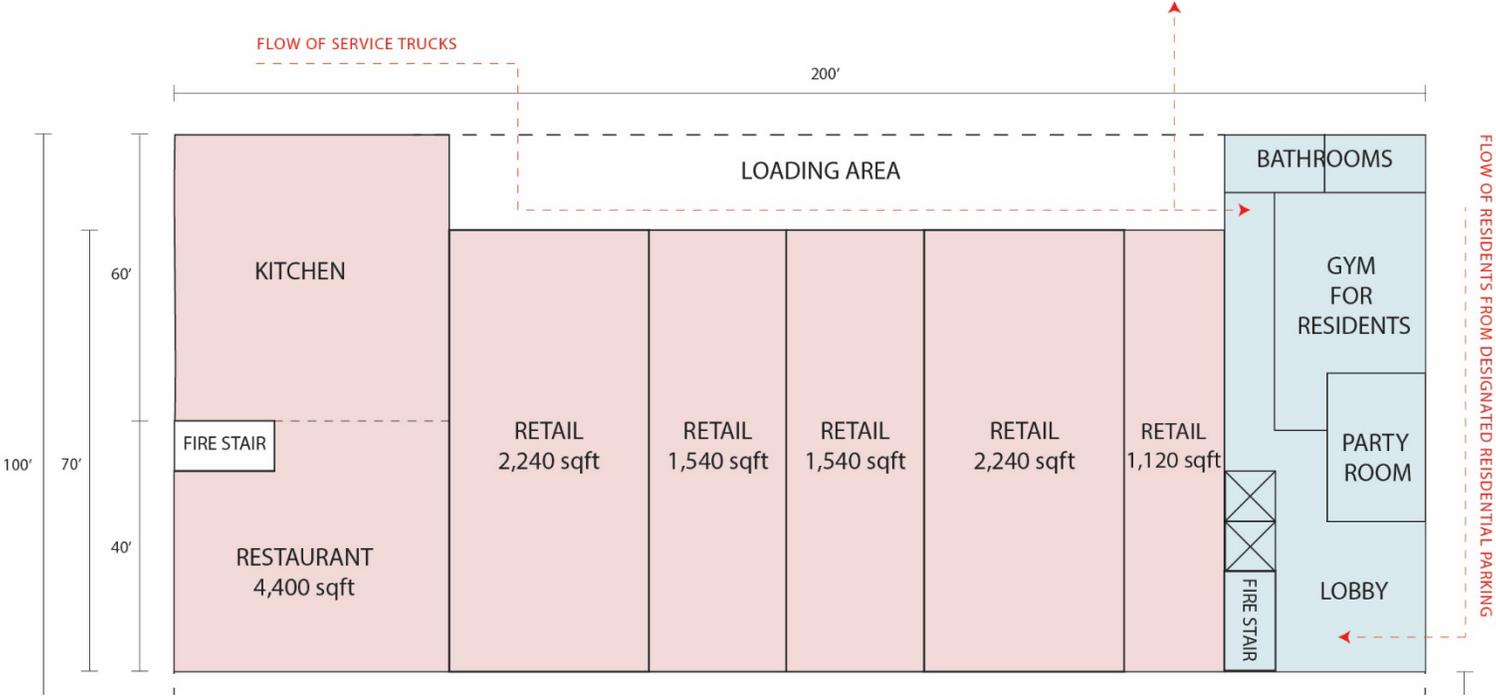
RESIDENTIAL UNITS



Unit Type	Monthly Rent	# of Units	% of Units	Unit Size (SF)
Studio	\$1,103	12	14%	500
1 BR/1 BA	\$1,604	40	48%	720
2 BR/2 BA	\$2,248	32	38%	990
TOTAL	--	84	--	69,680



RETAIL UNITS



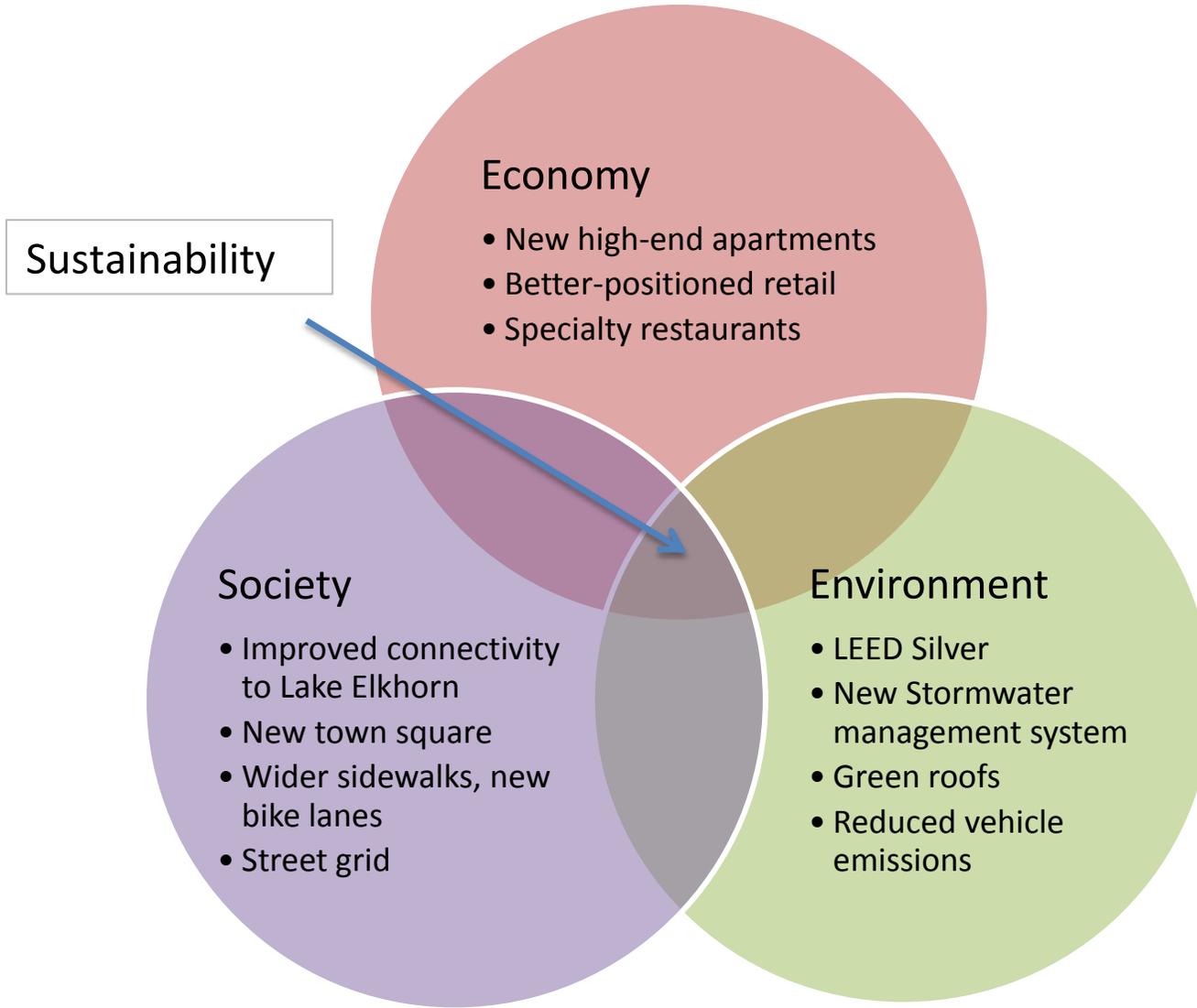
Unit Type	Retail Unit Size (SF)	Monthly Rent (PSF)	# of Units	% of Units
Restaurant	4,440	\$27.00	1	17%
Retail	2,240	\$27.00	2	34%
Retail	1,540	\$27.00	2	34%
Laundromat	1,120	\$27.00	1	17%
TOTAL	13,120	--	6	--



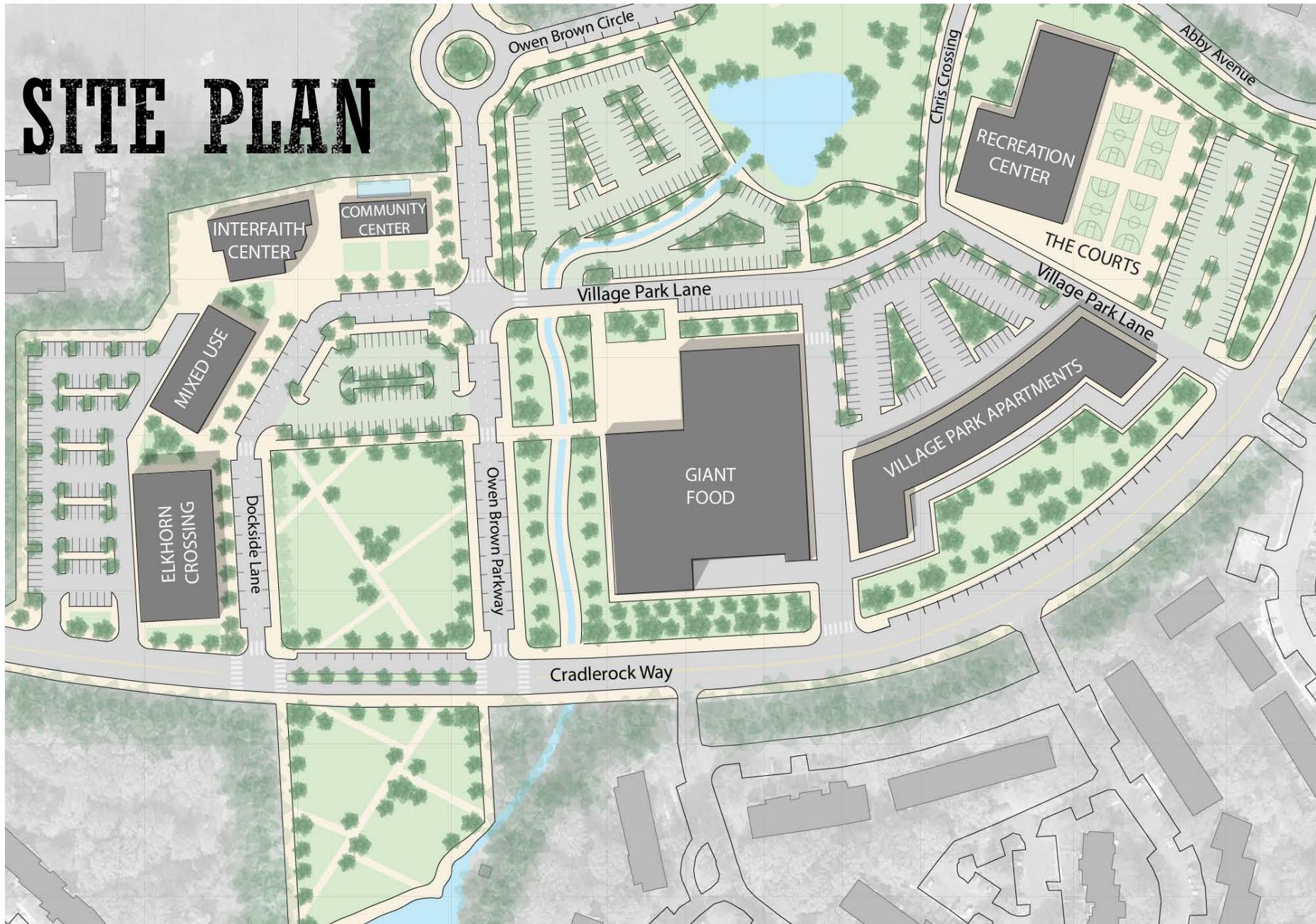
DESIGN



SUSTAINABILITY FEATURES



SITE PLAN





STAKEHOLDER BENEFITS

STAKEHOLDER BENEFITS



- New town square
- Centralized community center, neighborhood recreation center
- Improved connectivity to Lake Elkhorn



- Will maintain ownership of the Giant, help fund renovation
- Increased customer base to Giant & retail



- Reduced traffic speed
- Parallel parking reduces parking demand
- New roads, sidewalks, and bike lanes
- Increased tax revenue



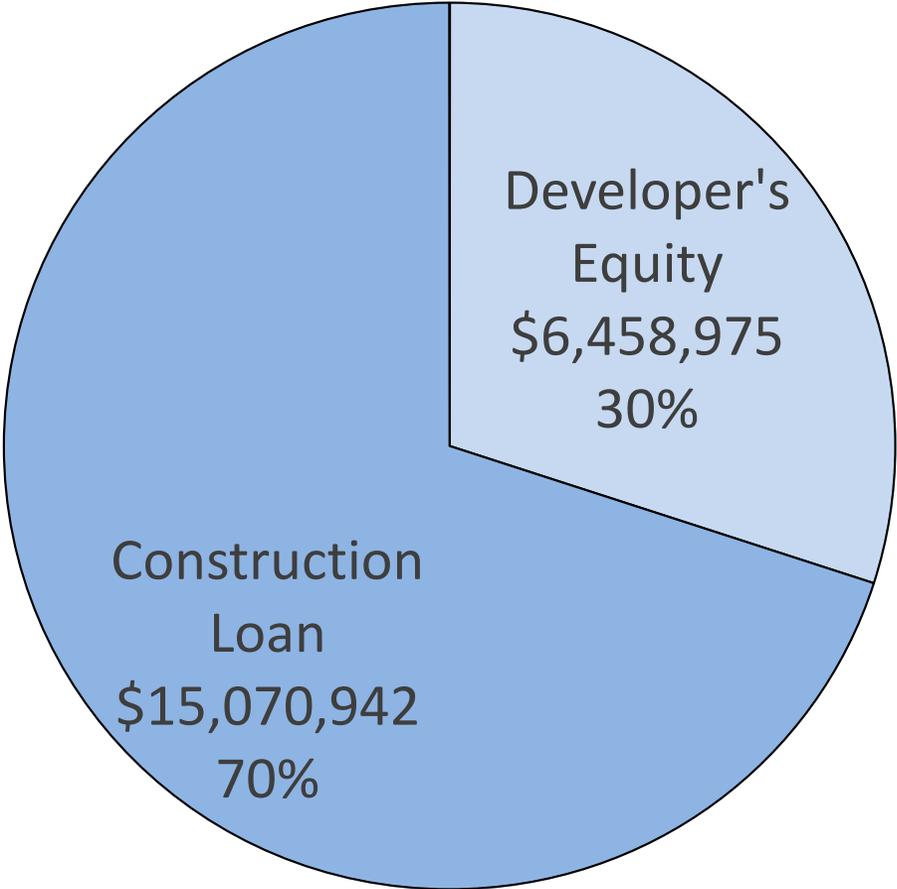
FINANCIAL RETURNS

KEY ASSUMPTIONS

- Loan Term: 35 years
- Loan Interest: 4%
- Exit Cap Rate: 6.5%
- Construction Cost: \$159/sf
- Parking: \$7,000/space
- Rent Increase: 3%/year
- Expense Increase: 3%/year



SOURCES OF CAPITAL



USES OF CAPITAL

13.79%	Acquisition	\$2,975,406	13.79%
67.27%	Hard Costs	\$14,516,350	67.27%
	<i>Demolition & Abatement</i>	\$240,245	1.11%
	<i>Construction</i>	\$14,276,105	66.15%
	Soft Costs	\$4,088,161	18.94%
	<i>Architecture & Engineering</i>	\$1,044,000	4.84%
	<i>Marketing</i>	\$160,000	0.74%
	<i>Organization/Professional</i>	\$458,922	2.13%
	<i>Financing & Settlement</i>	\$496,000	2.30%
	<i>Carry Costs</i>	\$542,108	2.51%
	<i>Fees & Permits</i>	\$401,983	1.86%
18.94%	<i>Soft Cost Contingency</i>	\$155,151	0.72%
	<i>Development Fee (4%)</i>	\$829,997	3.85%
	Total Development Cost	\$21,579,917	100%



CONSTRUCTION COSTS

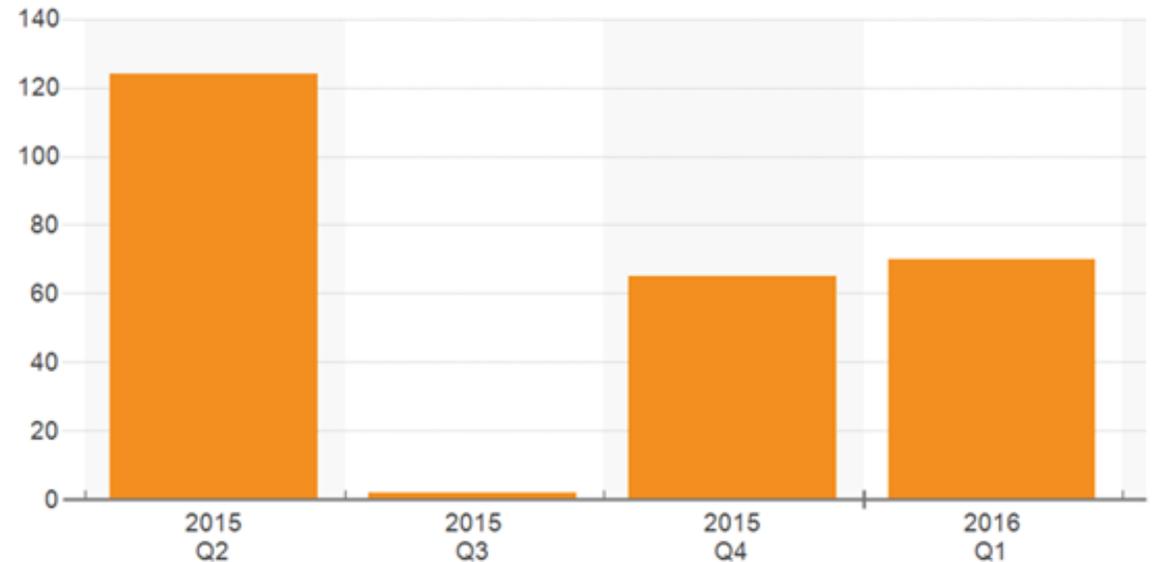
Construction				
Demolition & Abatement	\$2.15	sf	111,742	\$240,245
Base Building	\$120.00	sf	91,340	\$10,960,800
FF&E lobby furniture/art				\$250,000
Retail TI	\$80.00	sf	15,340	\$1,227,200
Parking Lot	\$7,000.00	space	90	\$630,000
Hard Costs Contingency	10%	%	Hard Costs	\$1,208,105
Subtotal				\$14,516,350



ABSORPTION

- Owen Brown MF Submarket: Stable
- Absorption rate based on rate at The Metropolitan (22 units per month in 2015)
- Elkhorn Crossing absorption: 18 units per month

Absorption at The Metropolitan



Source: CoStar



FINANCIALS

YEAR 11 SALE PROCEEDS AT 6.5% CAP RATE	
Sale Year	10
NOI	\$2,164,788
Cap Rate	6.50%
Sale Price	\$34,303,558
Loan Balance	\$12,642,225
Closing Cost	\$1,029,107
Net Proceeds	\$21,966,436

Key Financial Returns	
Return on Cost/Return on Investment	6.20%
Return on Equity/Cash on Cash	20.66%
Unleveraged IRR	11.20%
Leveraged IRR	20.77%
Equity Multiplier	3.40



FINANCIALS

	Construction	Stabilization		Sale
		Year 1	Year 5	Year 10
NOI	\$ -	\$ 1,087,542	\$ 1,867,365	\$ 2,164,788
DSCR		1.36	2.33	2.70
Proceeds (after debt)	\$ (5,232,527)	\$ 263,929	\$ 1,040,883	\$ 21,966,436





CONCLUSION

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Elkhorn Crossing will be profitable in every sense:

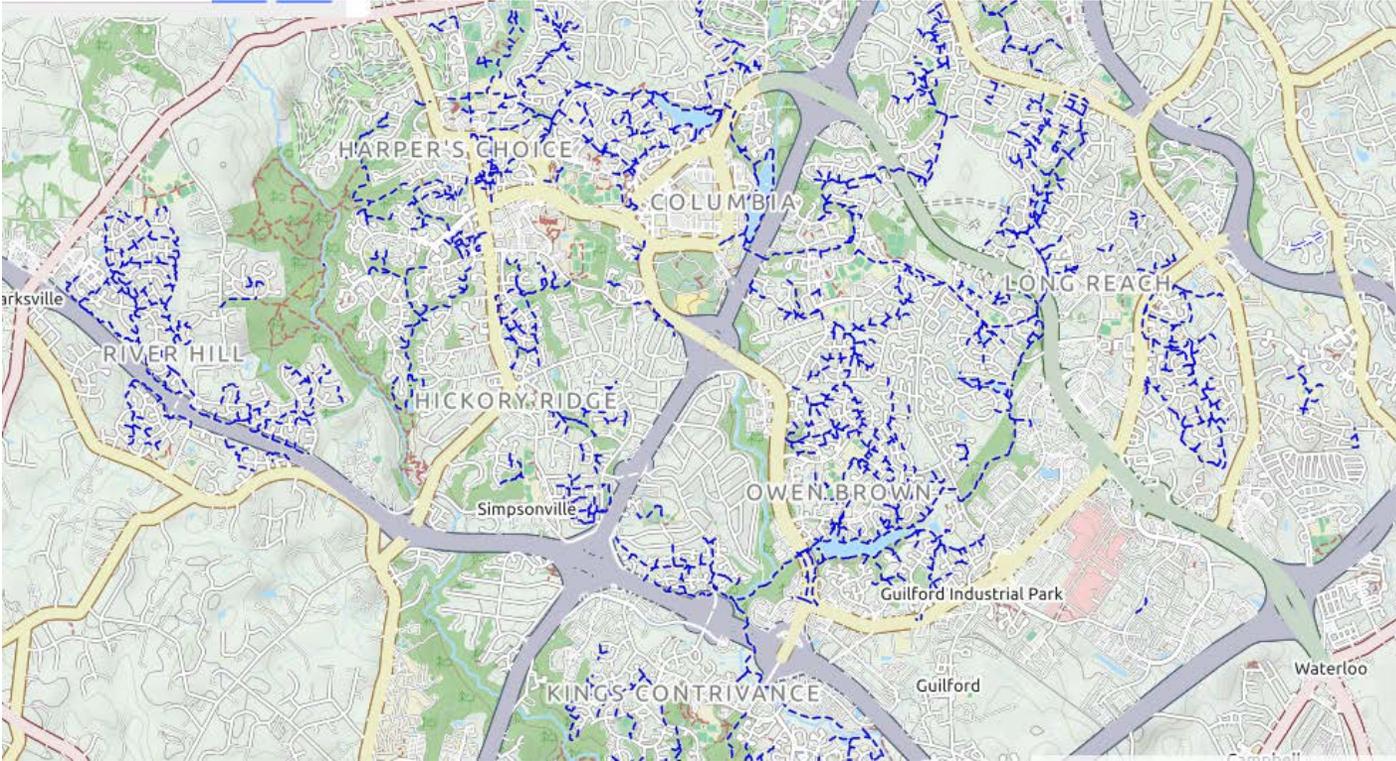
- Manages to blend the natural environment with the existing village center
- Creates a gathering place for Owen Brown residents
- Combines highly-visible retail with posh residential units
- Builds on the legacy created by James Rouse
- Proves economically feasible with viable returns



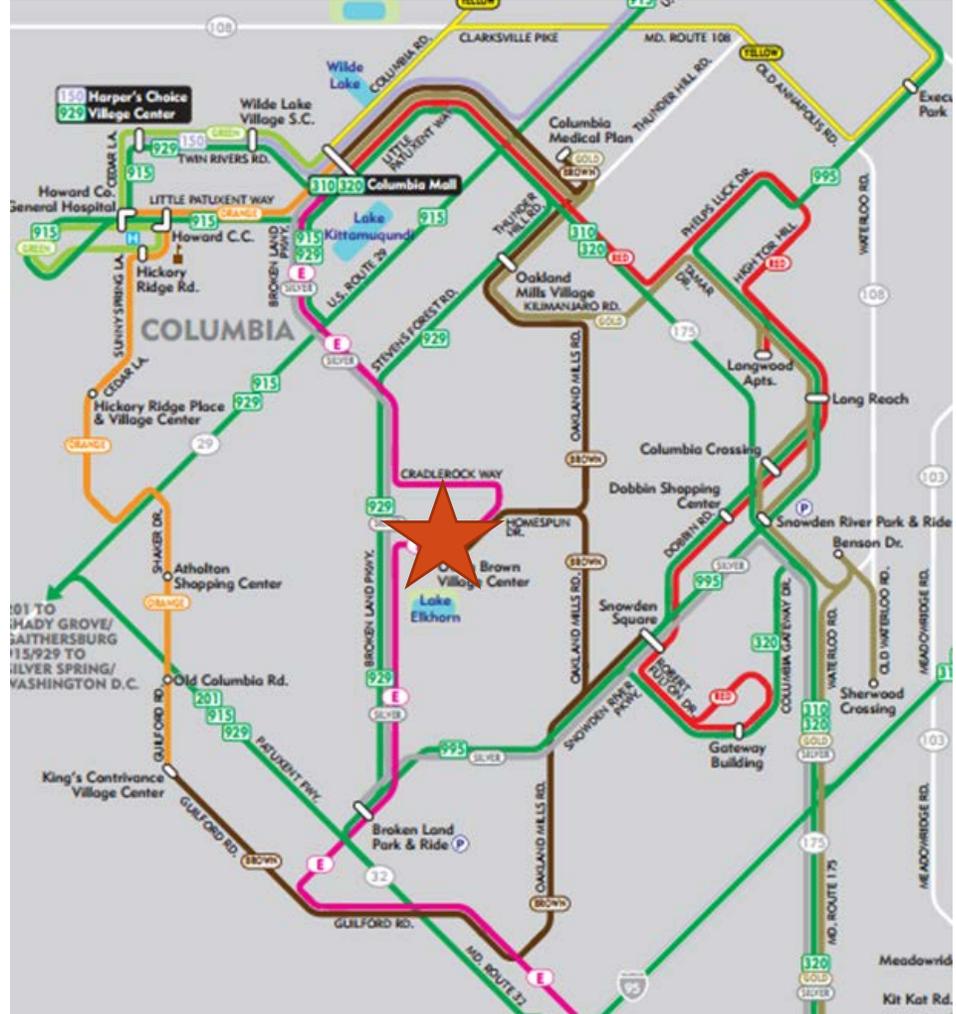
QUESTIONS?



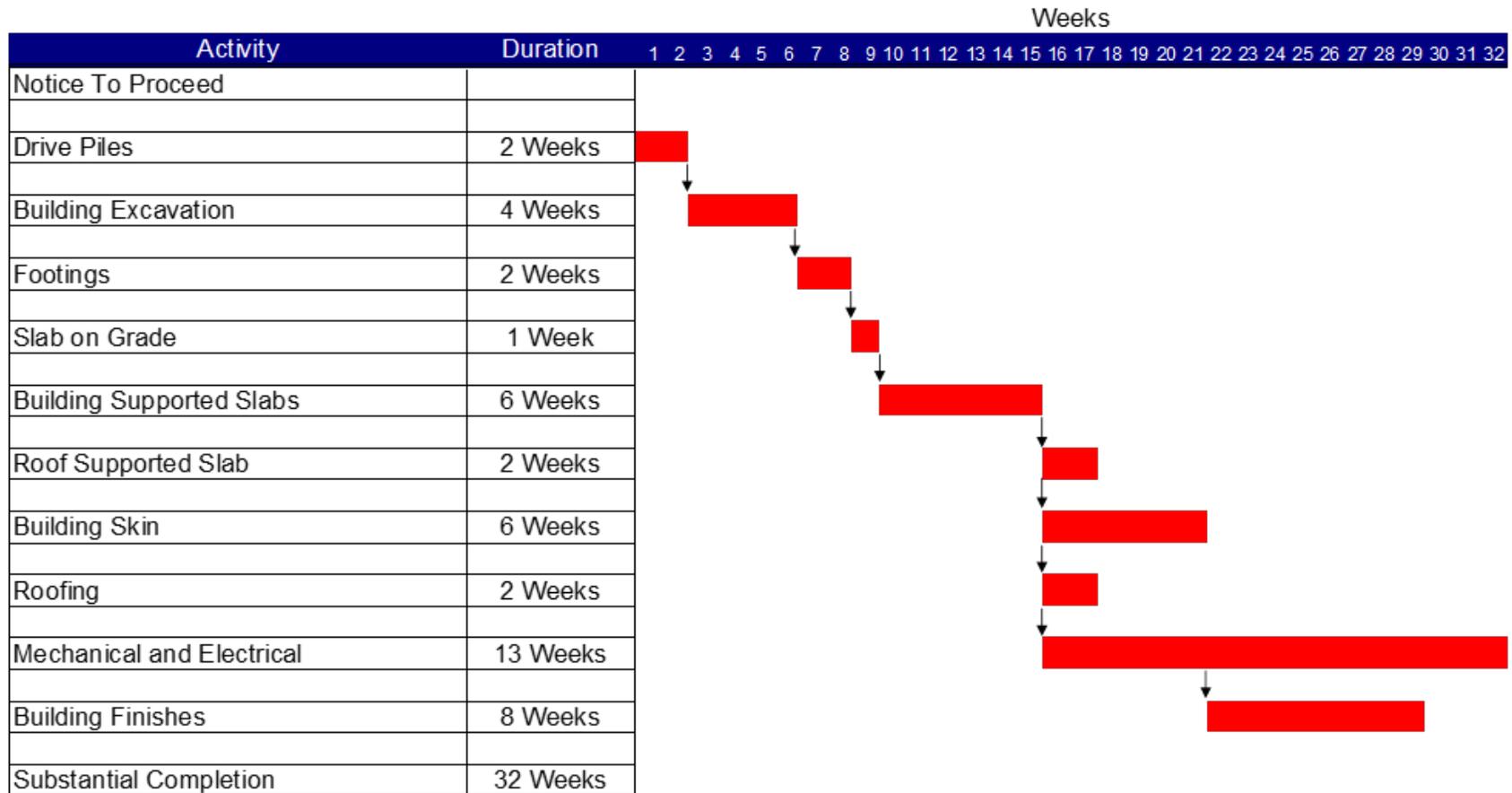
COLUMBIA BIKE TRAILS



COLUMBIA BUS ROUTES



CONSTRUCTION SCHEDULE



COLUMBIA DEMOGRAPHICS

2010 Demographics of Columbia, MD

Village	Population	Median Age	% White	% Black	% Asian	% Hispanic/ Latino
Dorsey's Search	5,541	37.7	67.3%	14.1%	13.3%	6.0%
Harper's Choice	7,646	37.7	50.0%	32.6%	9.0%	9.2%
Hickory Ridge	11,357	38.6	58.5%	24.9%	9.7%	6.5%
Kings Contrivance	8,500	37.3	63.5%	18.8%	11.6%	6.0%
Long Reach	13,931	36.7	48.1%	30.4%	12.6%	9.2%
<i>Owen Brown</i>	<i>9,785</i>	<i>36.7</i>	<i>52.4%</i>	<i>27.7%</i>	<i>10.9%</i>	<i>9.2%</i>
Oakland Mills	8,639	35.1	48.6%	31.0%	6.1%	16.4%
River Hill	6,752	37.4	64.4%	6.0%	26.5%	2.4%
Wilde Lake	4,956	41.8	52.7%	34.4%	5.4%	7.3%
Columbia Town Center	3,108	40.3	57.8%	26.6%	9.9%	7.0%
All of Columbia	90,316	37.9	56.6%	24.6%	11.0%	7.9%

Source: 2006-2010 American Community Survey, Columbia Association



PARKING

- 90 private spaces, 18 on-street spaces
- Additional parking in other nearby lots
- Required number of spaces: 108 (1 per unit plus 0.3 for visitors)
- Secured parking
- \$100 per year for residents, free upon validation for shoppers



CASH FLOWS

REVENUE													
Retail Income			353,160	363,755	374,667	385,907	397,485	409,409	421,692	434,342	447,373	460,794	
Lease Up Vacancy			(141,264)	\$0									
Vacancy	5.0%		\$0	(18,188)	(18,733)	(19,295)	(19,874)	(20,470)	(21,085)	(21,717)	(22,369)	(23,040)	
Multifamily Income			\$1,791,926	\$1,845,684	\$1,901,055	\$1,958,086	\$2,016,829	\$2,077,334	\$2,139,654	\$2,203,843	\$2,269,959	\$2,338,057	
Lease Up Vacancy			(537,578)										
Vacancy	5.0%			(92,284)	(95,053)	(97,904)	(100,841)	(103,867)	(106,983)	(110,192)	(113,498)	(116,903)	
POTENTIAL GROSS RENTAL INCOME			\$0	\$1,466,244	\$2,098,967	\$2,161,936	\$2,226,794	\$2,293,598	\$2,362,406	\$2,433,278	\$2,506,276	\$2,581,465	\$2,658,909
Parking for Residents	\$100.00	Per Space Per Year	\$108,000	\$111,240	\$114,577	\$118,015	\$121,555	\$125,202	\$128,958	\$132,826	\$136,811	\$140,916	
EXPENSES													
Multifamily Building Operating Expenses			425,501	438,266	451,414	464,957	478,906	493,273	508,071	523,313	539,012	555,183	
Retail Building Operating Expenses			7,201	7,417	7,640	7,869	8,105	8,348	8,598	8,856	9,122	9,396	
Parking Operating Expense	\$50.00		54,000	55,620	57,289	59,007	60,777	62,601	64,479	66,413	68,406	70,458	
NET OPERATING INCOME	Total SF	PSF	\$0	\$1,087,542	\$1,708,903	\$1,760,170	\$1,812,976	\$1,867,365	\$1,923,386	\$1,981,087	\$2,040,520	\$2,101,736	\$2,164,788
Capital Reserves (PSF)	91,400	\$0.25	22,850	23,536	24,242	24,969	25,718	26,489	27,284	28,103	28,946	29,814	
OPERATING CASH FLOW			\$0	\$1,064,692	\$1,685,368	\$1,735,929	\$1,788,007	\$1,841,647	\$1,896,896	\$1,953,803	\$2,012,417	\$2,072,790	\$2,134,974
Permanent Loan Analysis													
	Beginning Balance												
Debt Service			\$15,070,942	(800,764)	(800,764)	(800,764)	(800,764)	(800,764)	(800,764)	(800,764)	(800,764)	(800,764)	
Repayment												(12,642,225)	
Total			\$0	\$263,929	\$884,604	\$935,165	\$987,243	\$1,040,883	\$1,096,133	\$1,153,039	\$1,211,654	\$1,272,026	\$1,334,210
Sale of Project													
Sale	Cap Rate	6.50%	\$16,731,422	\$26,290,821	\$27,079,546	\$27,891,932	\$28,728,690	\$29,590,551	\$30,478,267	\$31,392,615	\$32,334,394	\$33,304,426	
Cost of Sale	% of Total	3.00%	\$501,943	\$788,725	\$812,386	\$836,758	\$861,861	\$887,717	\$914,348	\$941,778	\$970,032	\$999,133	
Total Return			\$16,229,479	\$25,502,096	\$26,267,159	\$27,055,174	\$27,866,829	\$28,702,834	\$29,563,919	\$30,450,837	\$31,364,362	\$32,305,293	



FINANCIAL RATIOS

- NPV (Year 10): \$4,237,849

RETURN ON COST (YEAR 2)			
<u>cash flow before tax</u>	<u>\$1,334,210</u>	6.20%	
<u>total development cost</u>	<u>\$21,529,917</u>		
LOAN TO VALUE (YEAR 2)			
<u>mortgage principle</u>	<u>\$15,070,942</u>	57.32%	less than or equal 70%
<u>appraised value/ cost</u>	<u>\$26,290,821</u>		
DEBT COVERAGE RATIO (YEAR 2)			
<u>NOI</u>	<u>\$1,708,903</u>	2.13	1.2 to 1.35
<u>annual debt service</u>	<u>\$800,764</u>		greater or equal 1.2
DEBT SERVICE RATIO (YEAR 2)			
<u>annual debt service</u>	<u>\$800,764</u>	46.86%	50% to 80%
<u>NOI</u>	<u>\$1,708,903</u>		
GROSS RENT MULTIPLIER (YEAR 2)			
<u>purchase (sale) price</u>	<u>\$2,925,406</u>	1.32	5.50 to 9.00
<u>potential gross income</u>	<u>\$2,210,207</u>		less than 9
BREAK EVEN RATIO (YEAR 2)			
<u>operating expense + debt service</u>	<u>\$1,302,067</u>	58.93%	70% to 85%
<u>gross operating income</u>	<u>\$2,209,439</u>		less than or equal 85%
OPERATING EXPENSE RATIO (YEAR 2)			
<u>operating expense</u>	<u>\$501,304</u>	22.69%	35% to 50%
<u>gross operating income</u>	<u>\$2,209,439</u>		
RETURN ON EQUITY/CASH ON CASH (YEAR 2)			
<u>cash flow</u>	<u>\$ 1,685,368</u>	26.09%	
<u>equity</u>	<u>\$6,458,975</u>		



MARKETING

- Site marketed towards millennials and young families
- Marketed as a property with urban amenities for a fraction of the cost
- Target people who work at Fort Meade who want easy access to the fort

