



**Chapel Hill/Carrboro
Long Range Transit Plan**

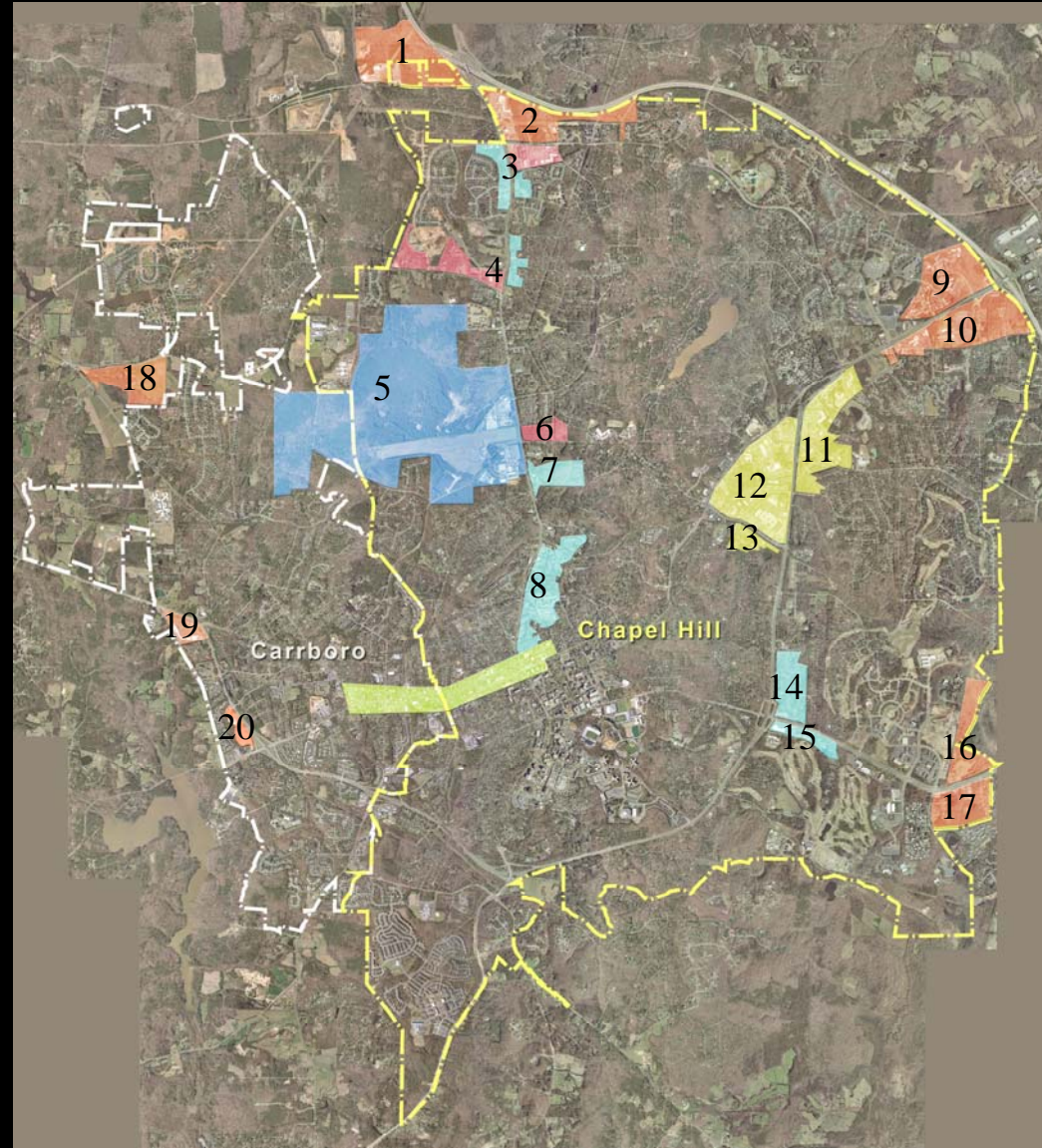
November 13, 2007

Agenda

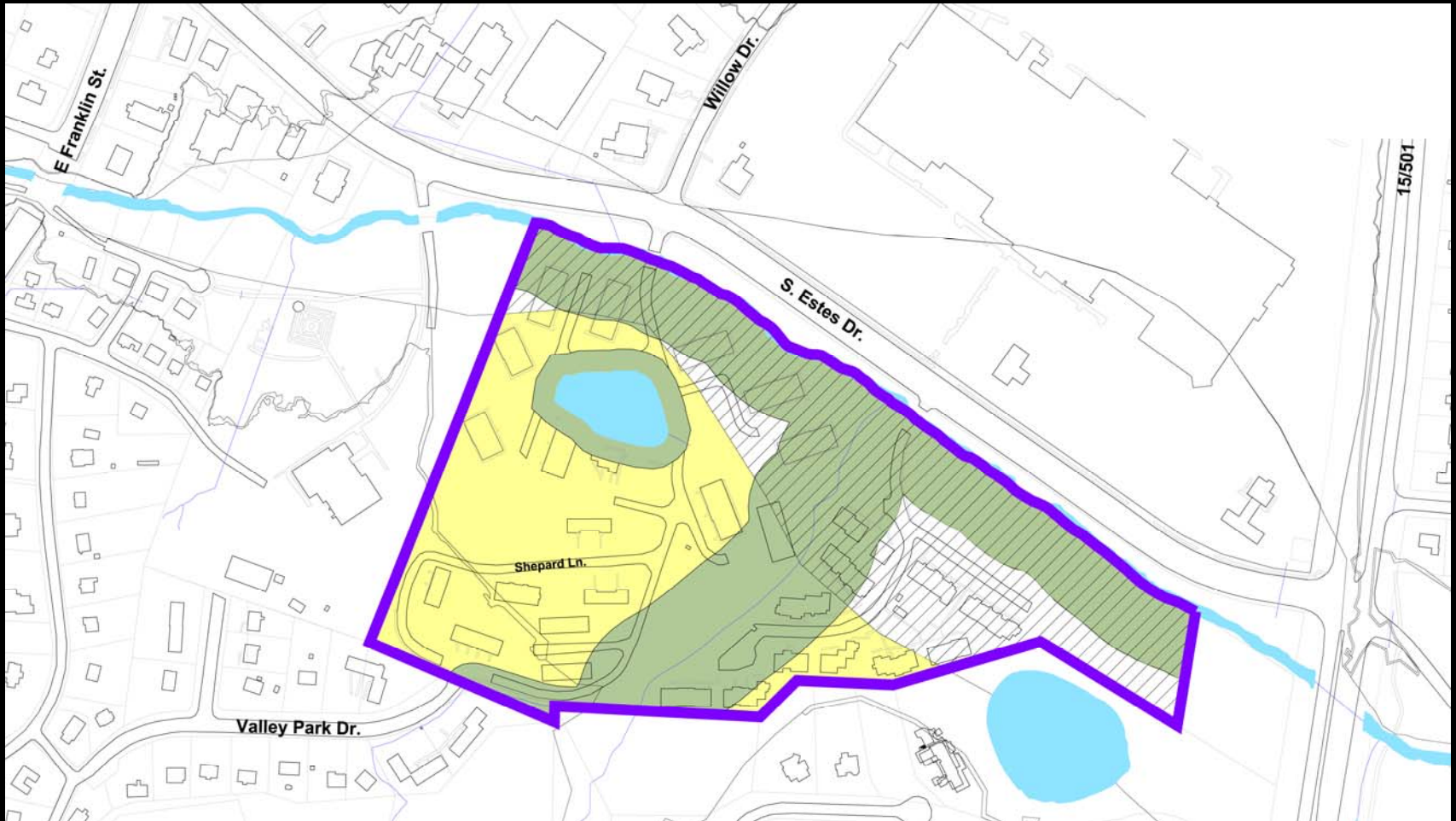
- TOD Build-Out Analysis
- Representative Site Plans
- Financing Options

TOD Site Typologies

- Parallel to Radial Corridors
- Perpendicular to Radial Corridors
- Gateways
- Malls
- Downtowns
- Carolina North

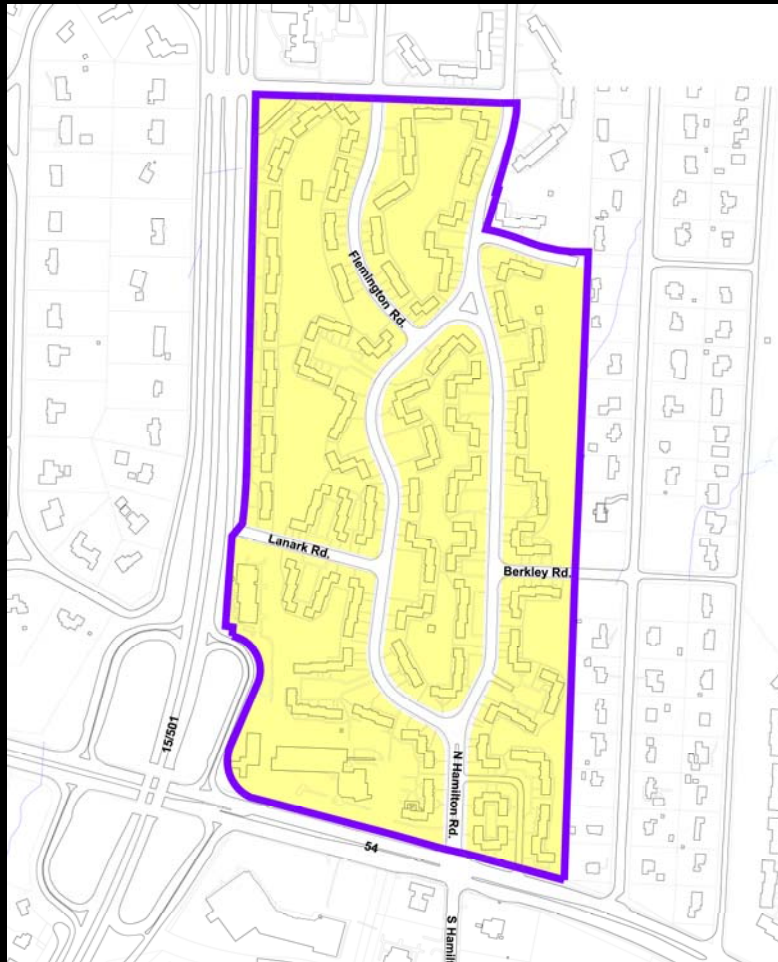


Site 13



Gross Buildable	Res.	Office	Retail	Residential	Office	Retail
29 ac.	20.1 ac.	100%	0%	502 units	0 ksf	0 ksf

Site 14

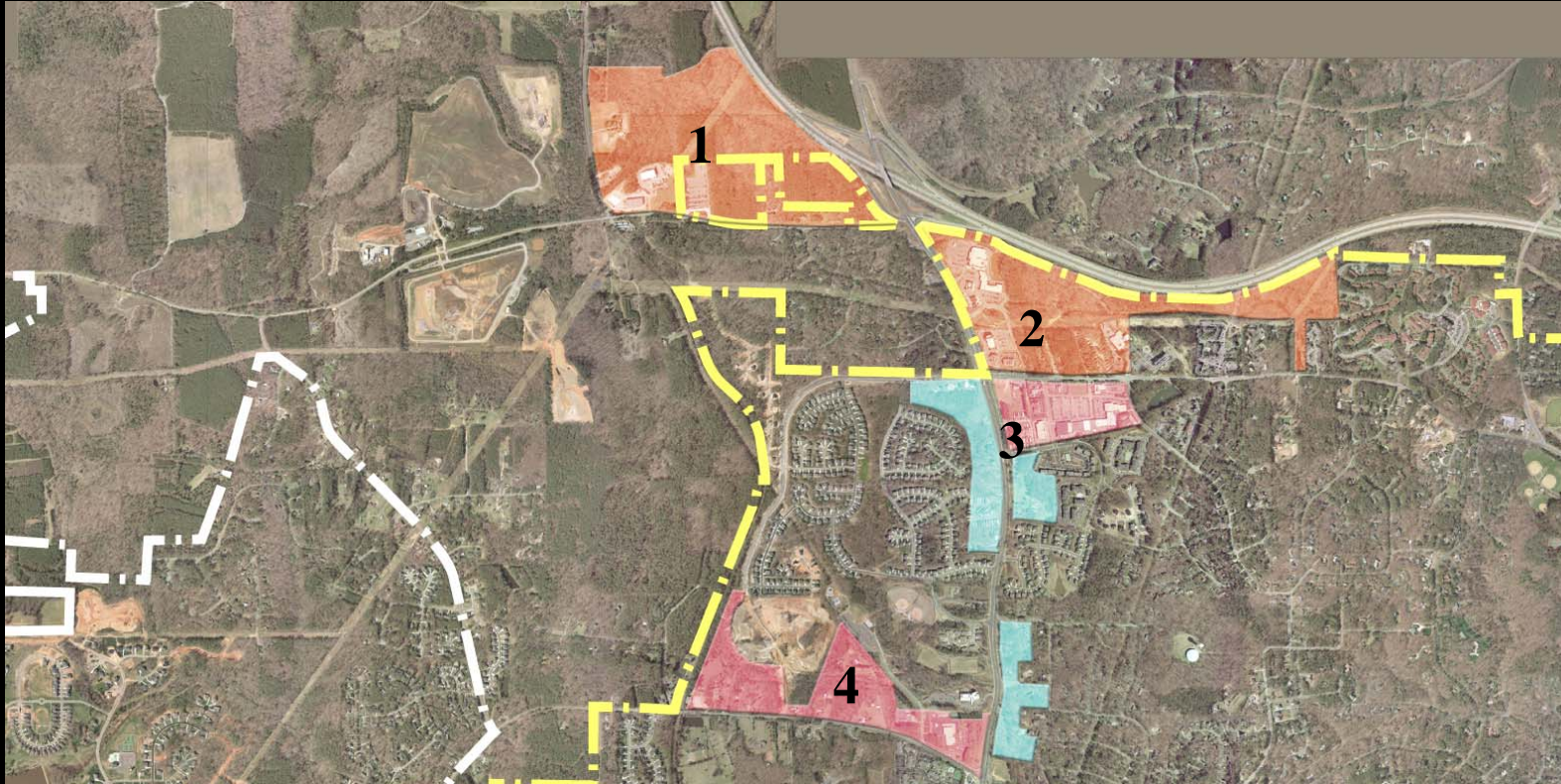


Gross	Buildable	Res.	Office	Retail	Residential	Office	Retail
60 ac.	50 ac.	50%	20%	30%	625 units	523 ksf	784 ksf

Potential Buildout

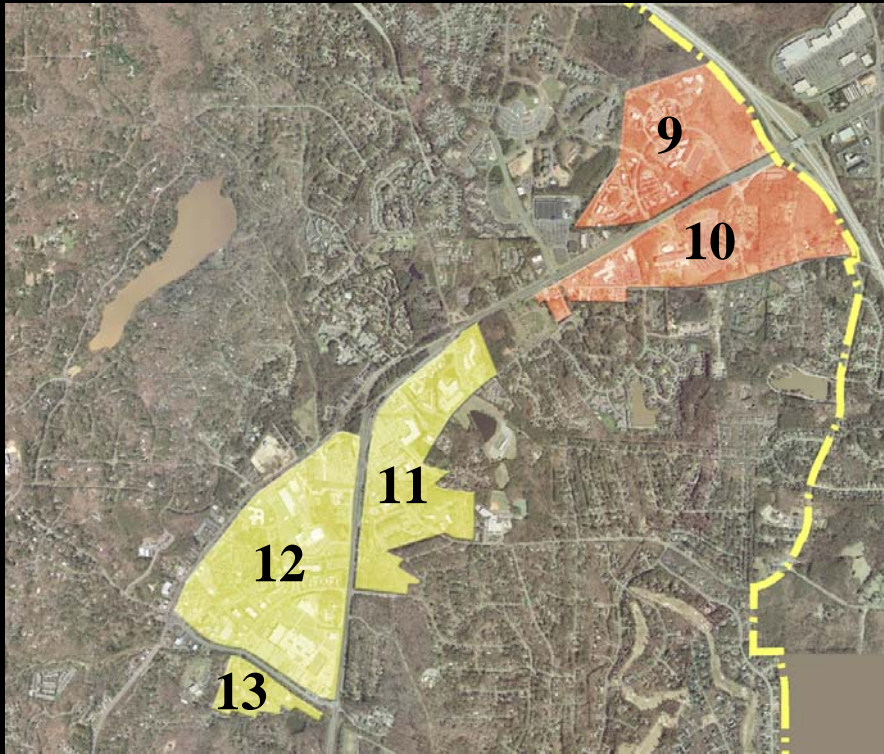
Site	Gross Acreage	Buildable Acreage	Development Program			Residential Units @ 25 units/ Acre	Residential Units @ 15 units/ Acre	Office SF@ FAR 1.2	Retail SF @ FAR 1.2	Office SF @ FAR 1.0	Retail SF @ FAR .55
			Residential	Office	Retail						
1	127.0	77.8	1061 units	120,000 sf	127,000 sf		1061 units			120,000 sf	127,000 sf
2	100.0	55.4	359 units	200,000 sf	73,000 sf		359 units			200,000 sf	73,000 sf
3	69.0	60	758 units	60,000 sf	417,000 sf		758 units			60,000 sf	417,000 sf
4	66.5	39.6	204 units		8,000 sf		204 units				8,000 sf
5	Carolina North										
6	29.0	26.7	80%	10%	10%	409	75	139,384	139,384	116,154	63,884
7	32.0	15.9	80%	20%		319		166,607	-	138,839	
8	91.0	55.7	70%	10%	20%	975		291,325	582,651	242,771	267,048
9	133.0	102.2	50%	25%	25%	1277		1,335,190	1,335,190	1,112,659	611,962
10a	124.0	78.0	75%	10%	15%	1463		407,722	611,582	339,768	280,309
10b	124.0	117.0	75%	10%	15%	2194		611,582	917,374	509,652	420,463
11	107.0	68.0	50%	20%	30%	850		710,899	1,066,349	592,416	488,743
12	173.0	129.9	25%	38%	38%	812		2,546,959	2,546,959	2,122,466	1,167,356
13	29.0	20.1	100%			502					
14	60.0	50.0	50%	20%	30%	625		522,720	784,080	435,600	359,370
15	24.0	7.1		25%	75%			92,687	278,060	77,239	127,444
16	58.0	58.0	50%	38%	12%	725		1,152,075	363,813	960,062	166,748
17a	63.0	49.6	50%	30%	20%	620		777,807	518,538	648,173	237,663
17b	63.0	60.6	50%	30%	20%	758		950,305	633,537	791,921	290,371
18	91.0	87.8	50%	20%	30%		659	917,896	1,376,844	764,914	631,054
19	38.0	36.9	50%	20%	30%	461		385,767	578,651	321,473	265,215
20	17.0	12.7	75%	13%	13%	238		82,872	82,872	69,060	37,983
Total	1432		12-13,000 units	7.3 - 10.3 million sf	5.3 - 11.3 million sf						

Northern Area



Site	Gross Acreage	Buildable Acreage	Development Program			Residential Units @ 25 units/ Acre	Residential Units @ 15 units/ Acre	Office SF @ FAR 1.2	Retail SF @ FAR 1.2	Office SF @ FAR 1.0	Retail SF @ FAR .55
			Residential	Office	Retail						
1	127.0	77.8	1061 units	120,000 sf	127,000 sf		1061 units			120,000 sf	127,000 sf
2	100.0	55.4	359 units	200,000 sf	73,000 sf		359 units			200,000 sf	73,000 sf
3	69.0	60	758 units	60,000 sf	417,000 sf		758 units			60,000 sf	417,000 sf
4	66.5	39.6	204 units		8,000 sf		204 units				8,000 sf
Total	363		2382 units	380,000 sf	625,000 sf						

Route 15/501 Corridor



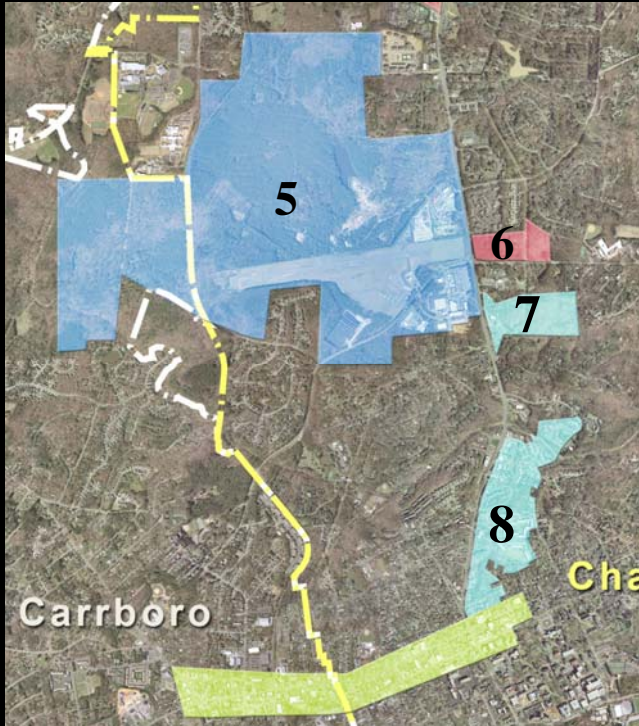
Site	Gross Acreage	Buildable Acreage	Development Program			Residential Units @ 25 units/ Acre	Residential Units @ 15 units/ Acre	Office SF@ FAR 1.2	Retail SF @ FAR 1.2	Office SF @ FAR 1.0	Retail SF @ FAR .55
			Residential	Office	Retail						
9	133.0	102.2	50%	25%	25%	1277		1,335,190	1,335,190	1,112,659	611,962
10a	124.0	78.0	75%	10%	15%	1463		407,722	611,582	339,768	280,309
10b	124.0	117.0	75%	10%	15%	2194		611,582	917,374	509,652	420,463
11	107.0	68.0	50%	20%	30%	850		710,899	1,066,349	592,416	488,743
12	173.0	129.9	25%	38%	38%	812		2,546,959	2,546,959	2,122,466	1,167,356
13	29.0	20.1	100%			502					
Total	566		4,904 - 5,635 units	4.1 - 5.2 million sf	2.5 - 5.9 million sf						

Route 54 Corridor



Site	Gross Acreage	Buildable Acreage	Development Program			Residential Units @ 25 units/ Acre	Residential Units @ 15 units/ Acre	Office SF @ FAR 1.2	Retail SF @ FAR 1.2	Office SF @ FAR 1.0	Retail SF @ FAR .55
			Residential	Office	Retail						
14	60.0	50.0	50%	20%	30%	625		522,720	784,080	435,600	359,370
15	24.0	7.1		25%	75%			92,687	278,060	77,239	127,444
16	58.0	58.0	50%	38%	12%	725		1,152,075	363,813	960,062	166,748
17a	63.0	49.6	50%	30%	20%	620		777,807	518,538	648,173	237,663
17b	63.0	60.6	50%	30%	20%	758		950,305	633,537	791,921	290,371
Total	205		1,970 - 2,108 units	2.1 - 2.7 million sf	.9 - 2 million sf						

Martin Luther King, Jr. Blvd. Corridor



Site	Gross Acreage	Buildable Acreage	Development Program			Residential Units @ 25 units/ Acre	Residential Units @ 15 units/ Acre	Office SF@ FAR 1.2	Retail SF @ FAR 1.2	Office SF @ FAR 1.0	Retail SF @ FAR .55
			Residential	Office	Retail						
6	29.0	26.7	80%	10%	10%	409	75	139,384	139,384	116,154	63,884
7	32.0	15.9	80%	20%		319		166,607	-	138,839	
8	91.0	55.7	70%	10%	20%	975		291,325	582,651	242,771	267,048
Total	152		1,778 units	498 - 597,000 sf	331 - 722,000 sf						

Carrboro



Site	Gross Acreage	Buildable Acreage	Development Program			Residential Units @ 25 units/ Acre	Residential Units @ 15 units/ Acre	Office SF@ FAR 1.2	Retail SF @ FAR 1.2	Office SF @ FAR 1.0	Retail SF @ FAR .55
			Residential	Office	Retail						
18	91.0	87.8	50%	20%	30%		659	917,896	1,376,844	764,914	631,054
19	38.0	36.9	50%	20%	30%	461		385,767	578,651	321,473	265,215
20	17.0	12.7	75%	13%	13%	238		82,872	82,872	69,060	37,983
Total	146		1,358 units	1.2 - 1.4 million sf	.9 - 2.0 million sf						

Sites 1- 4

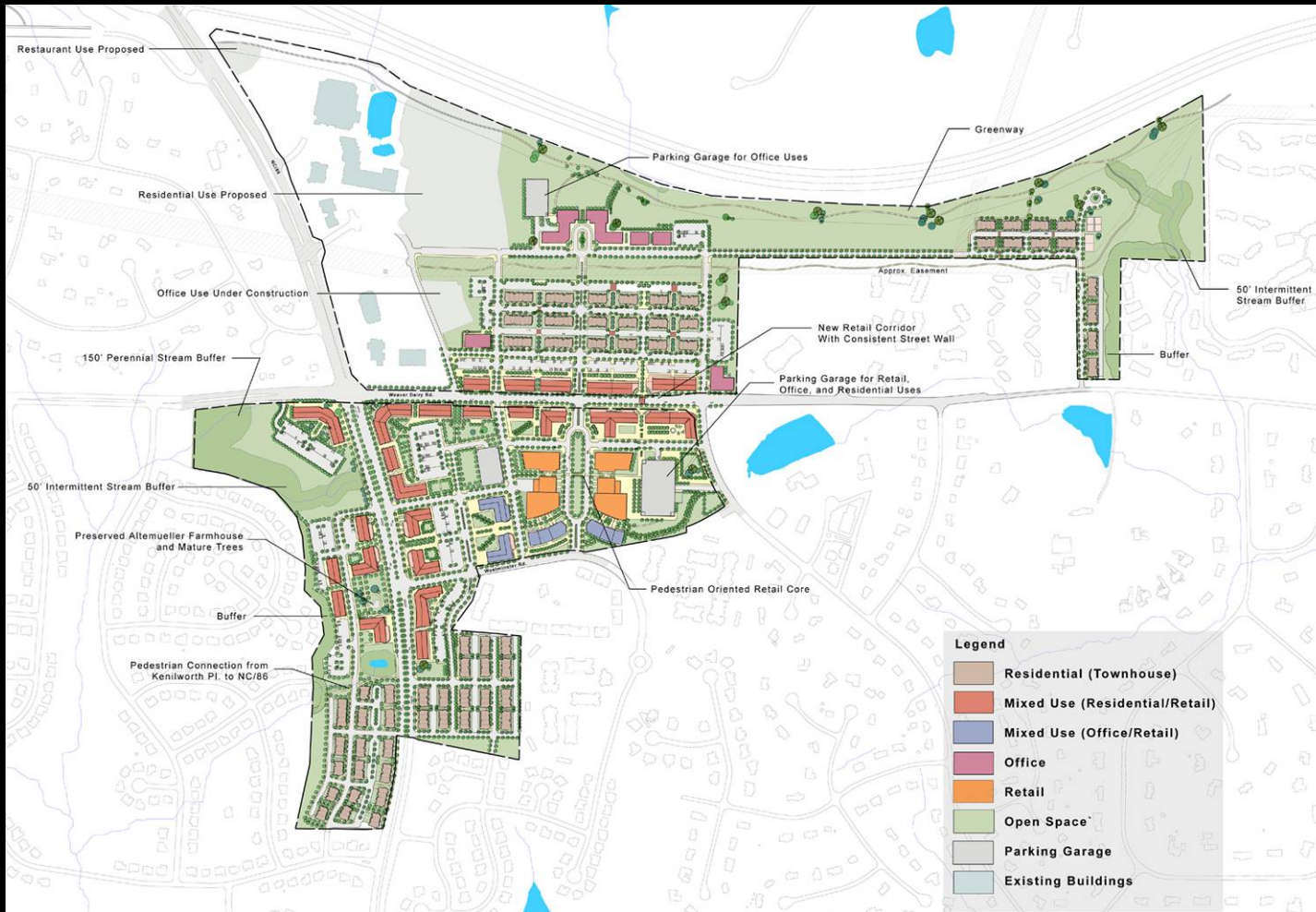


Site 1



Gross	Net	Residential	Office	Retail
127 ac.	77.82 ac.	1,061 units	120,000 sf	127,000 sf

Sites 2 & 3



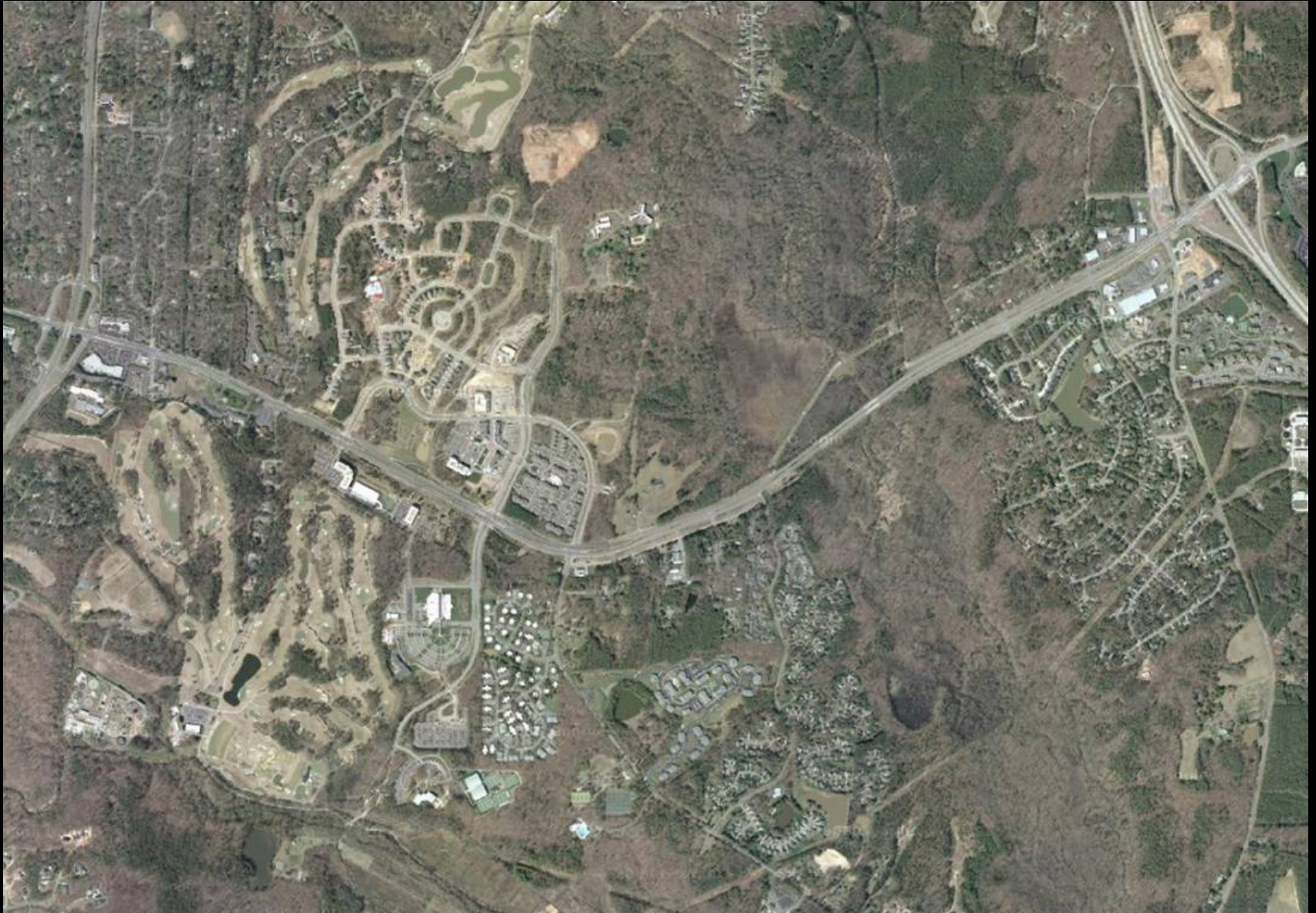
	Gross	Net	Residential	Office	Retail
Site 2	100 ac.	55.4 ac.	359 units	200,000 sf	73,000 sf
Site 3	69 ac.	60 ac.	758 units	60,000 sf	417,000 sf

Site 4



Gross	Net	Residential	Office	Retail
66.5 ac.	39.6 ac.	204 units		8,000 sf

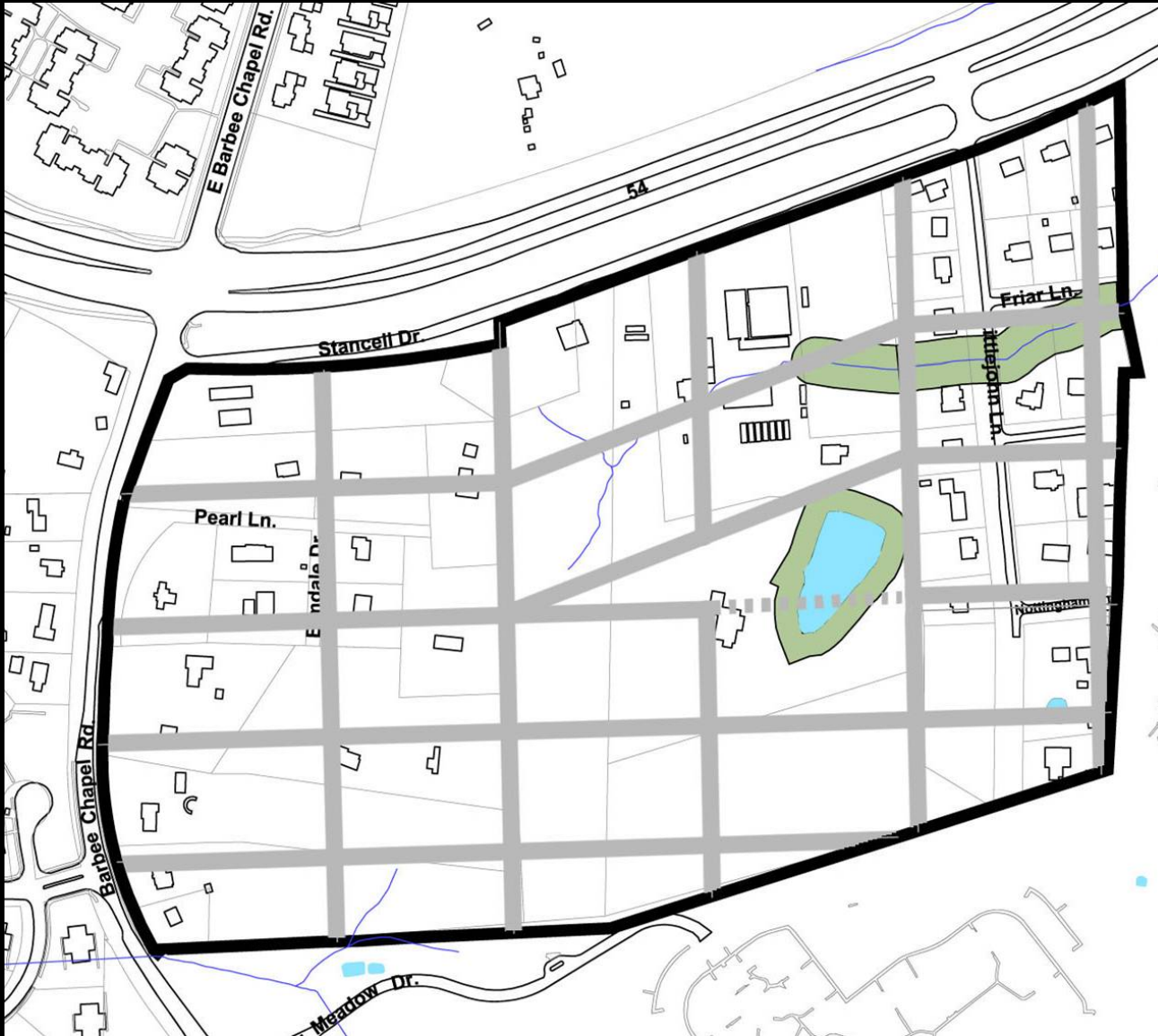
Site 17: Woodmont



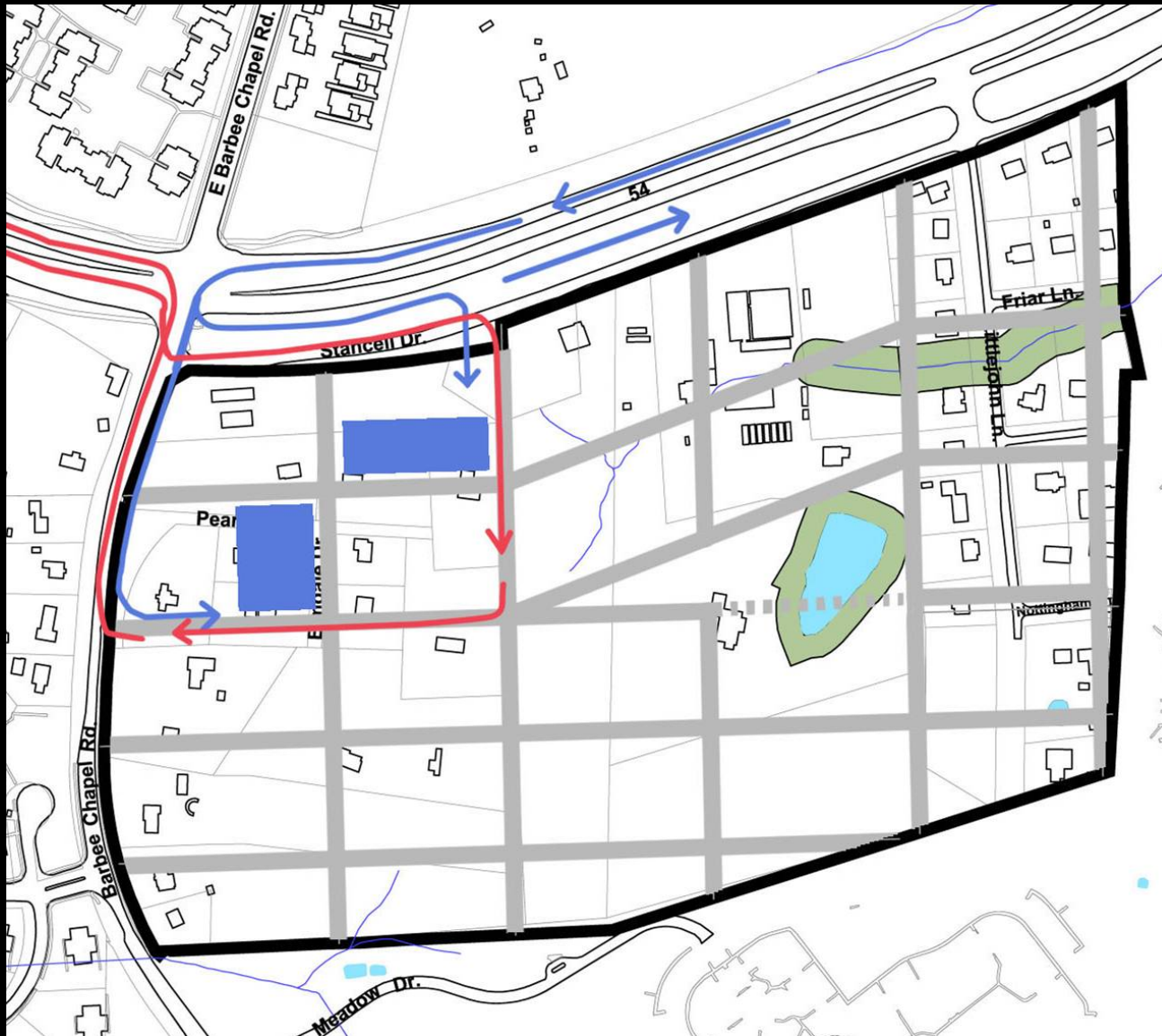
Site 17: Woodmont



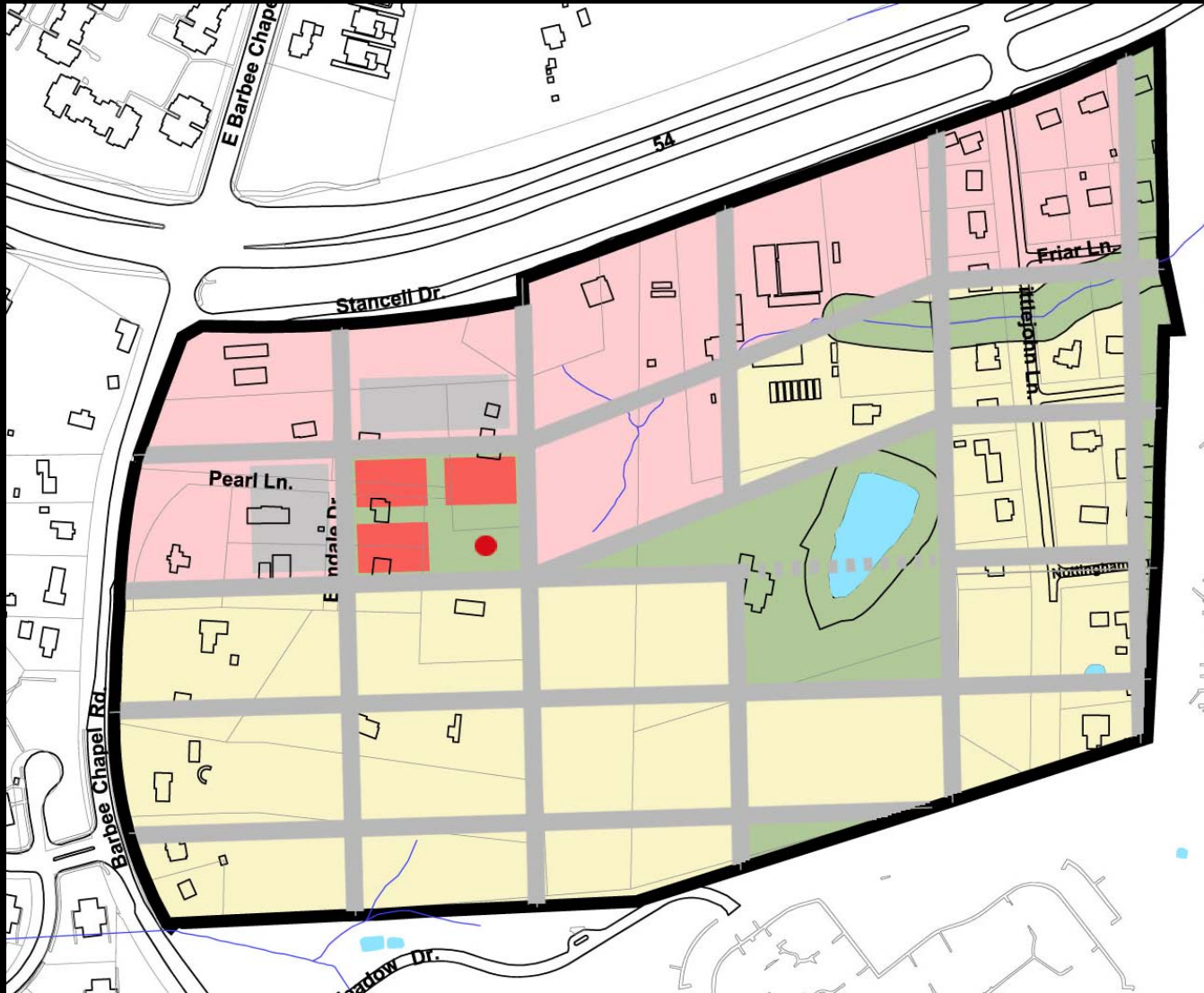
Site 17: Woodmont



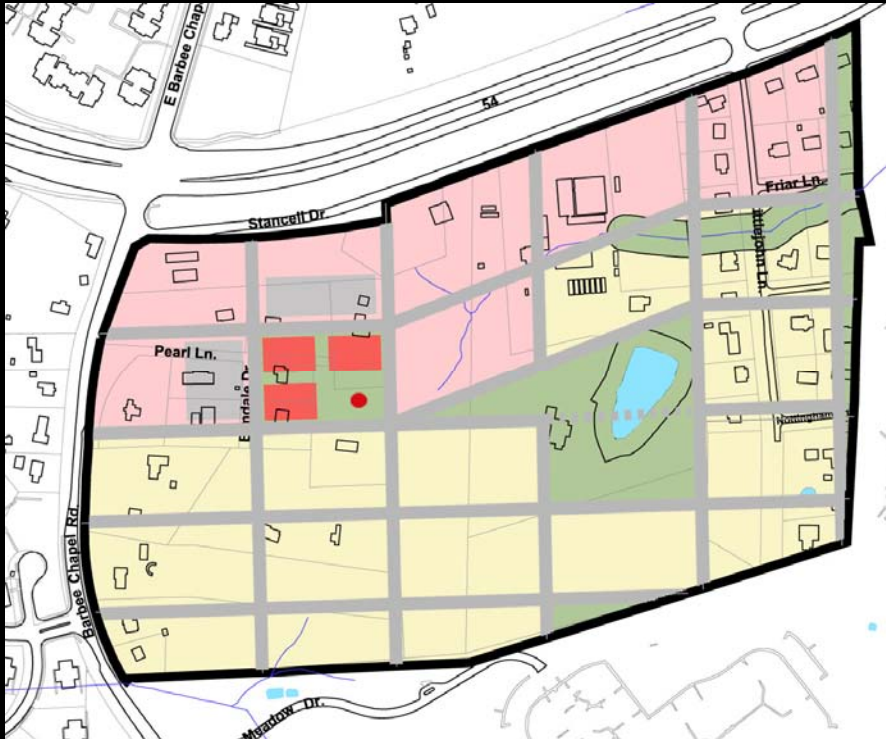
Site 17: Woodmont



Site 17: Woodmont



Design Guidelines



- Buildings at street edge
- Active street frontages
- Parking behind buildings
- Street grid
- Small blocks
- Transit near center of site
- Useable, purposeful open space
- Retail between park & ride and transit center

Site 10: 15/501 Gateway



Site 10: 15/501 Gateway



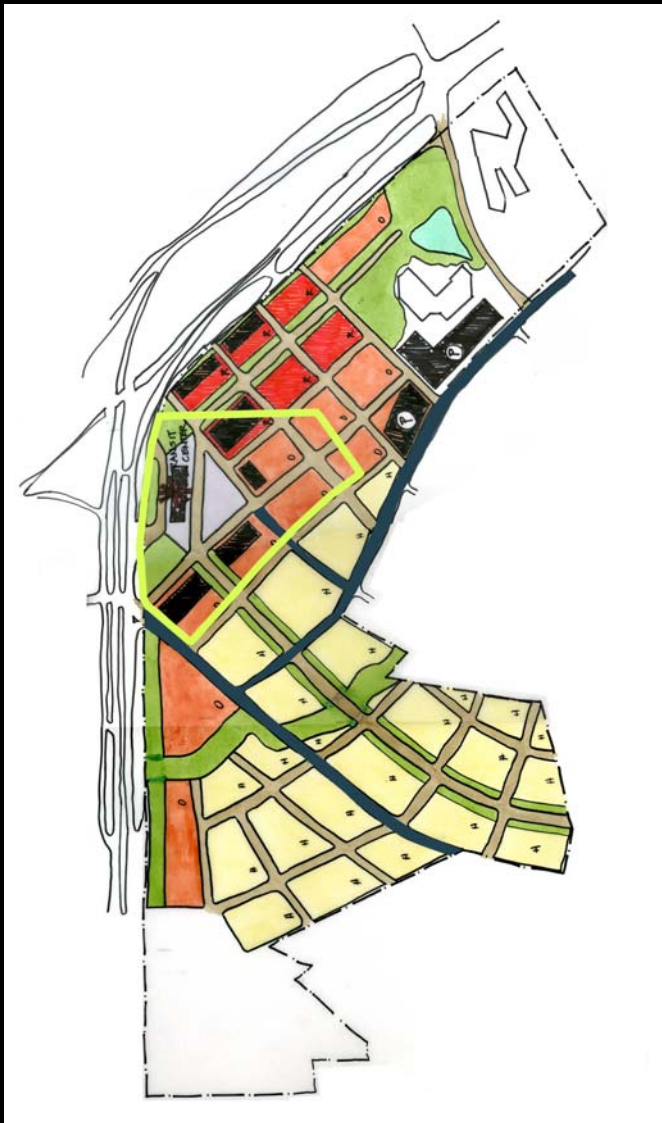
Site 11: Rams Plaza



Site 11: Rams Plaza



Site 11: Rams Plaza



Financing Options

- Transit Impact Fees
- Value Capture Techniques
 - Transit Improvement District
 - Tax Increment Financing

Transit Impact Fees

- In use since 1920's
- Premise: The cost of infrastructure projects needed to support growth is financed with impact fees based on some measurement of a development's impact on future needs.

Transit Impact Fees: Precedents

- San Francisco
- Broward County, FL
- Teton County, WY
- Durham, NC (for nine uses, but not transit)

Transit Impact Fees: Rational Nexus

Jurisdiction meets “rational nexus” test if:

- Shows how development created the need for the infrastructure
- Identifies cost of providing infrastructure
- Bases fee amount on extent to which development benefits from infrastructure

Transit Impact Fees: Fee Calculations

Teton

- Defined desired service and number of people served in 2005.
- $\text{Cost of desired service} / \text{number of people served} = \text{cost per person.}$
- $\text{Fee} = \text{Persons/unit or employees/sf of development} \times \text{cost per person.}$

San Francisco

- Defined constant relationship between the number of Muni revenue service hours provided divided by the number of trips generated by non-residential uses.
- $\text{Cost of service over 45 years} / \text{divided by sf of development} = \text{cost per sf}$
- $\text{Fee} = \text{sf of new development} \times \text{cost per sf}$

Transit Impact Fees: Lessons Learned from Broward County

- Calculate cost over adequate time period
- Carefully define service

Transit Impact Fees: Other Issues

- Must recalculate fees periodically to keep up to date
- Must spend money collected within reasonable time period (5-10 years) or refund

Value Capture

Attempts to capture some of the increase in value due to the improvement which benefits the properties impacted.

Two Issues:

1. Does the increase in value go to the local jurisdiction or to the transit agency?
2. Since the most support you'll get for a project comes from those who stand to make the most profit from it, how much of the increased value can you take before you lose the interest of your development partners?

Assessment Districts

- Assessment districts are special property taxing districts where the cost of infrastructure is paid for by properties that are deemed to benefit from the infrastructure.

Assessment Districts: Examples

- WMATA Red Line
- Los Angeles
- Santa Clara County
- Contra Costa County
- Portland

Tax Increment Financing

- Technique in which bonds are issued to finance public infrastructure improvements, and repaid with dedicated revenues from the increment in property taxes as a result of such improvements.

Tax Increment Financing: Precedents

- **Chicago:** 129 TIF districts cover 30 percent of city land.
- **Arlington Heights IL:** Used 2 TIF districts to rebuild its downtown with very high residential densities around the commuter rail station, funding infrastructure and providing gap financing as an incentive to developers.
- **Portland, OR:** Used TIFs to fund MAX Yellow Line and Portland Streetcar

Other Options

- Grant density bonuses to developers who contribute to rail implementation.
- Assess property values over time and tax windfall changes at a higher marginal rate to fund infrastructure and put redevelopment pressure on underused properties.