Memorandum
City of Lawrence
City Manager's Office

TO: Thomas M. Markus, City Manager
CC: Diane Stoddard, Assistant City Manager
Casey Toomay, Assistant City Manager
Scott McCullough, Planning and Development Services Director
FROM: Britt Crum-Cano, Economic Development Coordinator
DATE: January 26, 2017
RE: 2016 Residential Lot Inventory

This report is an update on the status of available lots for new residential construction as of December 31, 2016 based on market demand, supply, and inventory. Data focuses on building permits issued in 2016 as well as lots platted for single-family, residential construction from 2006-2016 (i.e. newer subdivisions). A map of residential lots platted from 2006 through 2016 is included at the end of this report. Additional maps showing building permits issued over the past five and ten years are also provided.

Overview

Lot Supply

Total supply of residential lots decreased by ten percent in 2016, dropping from 1,093 lots in 2015 to 984 total lots in 2016.

Total Residential Lot Inventory by Year (includes lots with and without infrastructure)				% Change		
Year	Lots in Newer Subdivisions	Lots in Older Subdivisions	Total	New Sub	Older Sub	Total
2016	345	639	984	-25%	1%	-10%
2015	463	630	1,093	-1%	18%	9%
2014	469	532	1,001	-7%	0%	-4%
2013	504	534	1,038	-31%	1%	-18%
2012	732	527	1,259			

Supply of development-ready lots (i.e. lots with infrastructure in place) increased by six percent over 2015, rising from 838 to 890.

Development Ready Residential Lot Inventory by Year (lots with infrastructure)				% Change		
Year	Lots in Newer Subdivisions	Lots in Older Subdivisions	Total	New Sub	Older Sub	Total
2016	345	545	890	5%	7%	6%
2015	329	509	838	-30%	24%	-5%
2014	469	409	878	14%	0%	7%
2013	413	411	824	-2%	1%	0%
2012	423	405	828			

Demand

2016 saw a drop in demand for single family and duplex housing compared to the banner 2015 year.[1] There were 137 permits pulled for single family homes (a 15% decrease from 2015) and 34 permits pulled for 68 duplex units (a 56% decrease from 2015).

Build Permits by Year					% Change			
Year	Single Family	Duplex	Apartment	Total	SF	DP	APT	Total
2016	137	34	74	245	-15%	-56%	957%	0%
2015	161	78	7	246	59%	420%	17%	102%
2014	101	15	6	122	-35%	50%	-74%	-35%
2013	155	10	23	188	26%	233%	5%	27%
2012	123	3	22	148				

Apartments took a substantial jump in demand compared to the previous year. In 2016, 74 permits were issued for 1,205 apartment units as compared to seven permits pulled in 2015 for 467 apartment units (a 957% increase in permits from 2015).

[1] 2015 saw the highest demand for single family building permits (161 permits) since before the recession, when 166 permits were pulled in 2007.

Annual Inventory

Given the reduced market demand in 2016 (137 permits/year), total annual inventory of single family lots increased 6% compared to the previous year, rising from 6.8 years in 2015 to 7.2 years in 2016. However, annual inventory in new subdivisions decreased approximately 11% compared to the previous year, dropping from 2.8 years in 2015 to 2.5 years in 2016. The opposite was true for supply in older subdivisions which increased 18%, going from 4 years in 2015 to 4.7 years in 2016.

Annual Inventory by Year (Given annual market demand. Includes lots with and without infrastructure.)					% Change		
Year	**Annual SF Permits**	**Newer Subdivisions** (Years)	**Older Subdivisions** (Years)	**Total** (Years)	New Sub	Older Sub	Total
2016	137	2.5	4.7	7.2	-11%	18%	6%
2015	161	2.8	4.0	6.8	-47%	-54%	-51%
2014	101	5.3	8.7	14.0	-35%	-31%	-33%
2013	155	8.1	12.7	20.8	-40%	-41%	-40%
2012	123	13.4	21.4	34.8			

Using historical permit data, the City is showing 7.6 years of annual residential lot inventory based on 5 year demand (130 permits/year) and 7.2 years of annual inventory based on 10 year demand (135 permits/year).

Supply of Residential Lots

At the end of 2016, 345 undeveloped lots (0 without infrastructure and 345 with infrastructure) were available for residential construction in newer subdivisions.

Table 1: Residential Lots as of December 31, 2016[2]

Newer Subdivisions *(Lots Platted After January 1, 2006)*			
	# Lots	**% of Total**	**Average Lot Size (ac)**
Undeveloped Lots: Without Infrastructure	0	0%	n/a
Undeveloped Lots: With Infrastructure	345	100%	0.28
Total	**345**	**100%**	**0.28**

Not restricting data based on date platted, there are a total of 984 platted, undeveloped residential lots available throughout the City (345 lots located in newer subdivisions and 639 lots located in older subdivisions).

Table 2: Total Residential Lot Supply[3]

Total Residential Lot Supply *(As of December 31, 2016)*			
	Newer Subdivisions *(platted after 1-1-2006)*	**Older Subdivisions**	**Total**
Undeveloped Lots: Without Infrastructure	0	94	94
Undeveloped Lots: With Infrastructure (Development-Ready)	345	545	890
Total	**345**	**639**	**984**

[2] Source: City of Lawrence, Kansas, GIS Department
[3] Source: City of Lawrence, Kansas, GIS Department

Demand for New Residential Construction

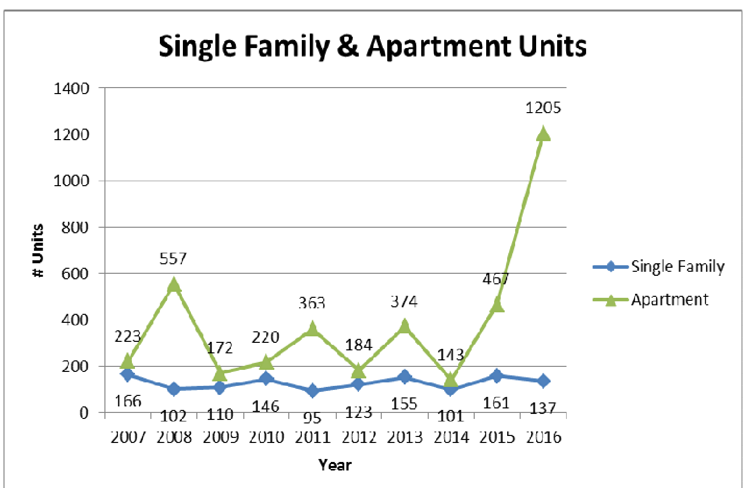
There were 245 residential building permits issued in 2016 for a total of 1,410 units of new residential housing. Of the permits issued, there were 137 issued for single family homes, 34 for duplex structures, and 74 for apartment buildings.

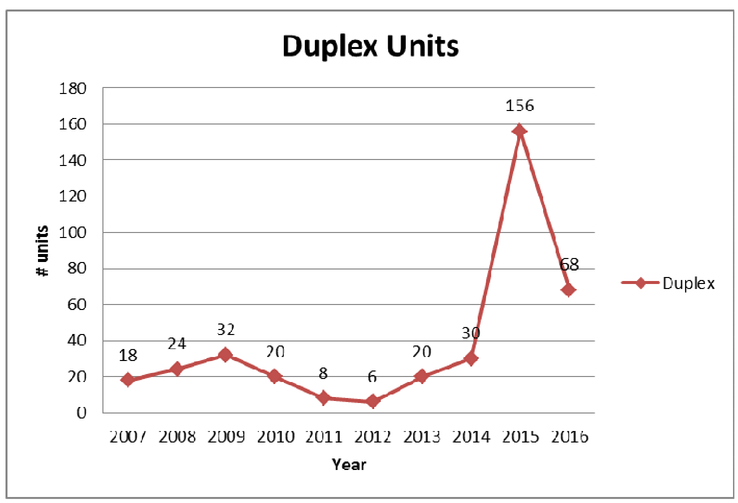
Table 3: New Residential Building Permits & Units[4]

	2010		2011		2012		2013		2014		2015		2016	
New Residential	**Permits**	**Units**	**Permits**	**Units**	**Permits**	**Units**	**Permits**	**Units**	**Permits**	**Units**	**Permits**	**Units**	**Permits**	**Units**
Single Family	146	146	95	95	123	123	155	155	101	101	161	161	137	137
Duplex	10	20	4	8	3	6	10	20	15	30	78	156	34	68
Apartment	6	220	19	363	22	184	23	374	6	143	7	467	74	1,205
Total	**162**	**386**	**118**	**466**	**148**	**313**	**188**	**549**	**122**	**274**	**246**	**784**	**245**	**1410**

The number of single family residential units was down 15% from the previous year, dropping to 137 units in 2016 as compared to 161 units in 2015. Apartment units increased dramatically, going from 467 units in 2015 to 1,205 units in 2016 (158% increase from the previous year). The number of duplex units dropped from 156 units in 2015 to 68 units in 2016, a 56% decrease from the previous year.

Historical Comparison: Demand for New Residential Units





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[4] Source: City of Lawrence, Development Services, Valuation of Building Permits `

Estimated Inventory of Residential Building Lots

The inventory of available lots can be estimated by comparing both the supply of, and demand for, lots for new residential construction.

Demand: Annual demand can be estimated using the number of building permits issued for new residential construction throughout the year. Since the majority of new residential permits are issued for single family homes, this analysis utilizes the number of single family building permits issued to represent demand for residential lots.

Supply: The number of undeveloped, platted lots for new residential construction is utilized to represent the current supply of available lots.

Using 2016 data to represent current market conditions, the total residential lot inventory will last approximately 7.2 years. Lots in newer subdivisions are estimated to last approximately 2.5 years.

Table 4: Estimated Inventory Based on Current Market Demand
(137 permits/year)

Estimated Lot Inventory In Years *(Available Residential Lots as of December 31, 2016)*			
	Stock in Newer Subdivisions	**Stock in Older Subdivisions**	**Total Stock**
Undeveloped Lots: Without Infrastructure	0.0	0.7	0.7
Undeveloped Lots: With Infrastructure (Development-Ready)	2.5	4.0	6.5
Total	**2.5**	**4.7**	**7.2**

Since residential real estate market demand can vary from year to year, the below shows inventory in light of historical trends in market demand. When examining historical demand data over the past five years, the average number of single family building permits issued per year was 130, representing approximately 7.6 years of residential building lot inventory given the current supply of undeveloped lots. Lots in newer subdivisions are estimated to last approximately 2.7 years.

Table 5: Estimated Inventory based on 5-Year Market Average
(130 permits/year)

Estimated Lot Inventory In Years *(Available Residential Lots as of December 31, 2016)*			
	Stock in Newer Subdivisions	**Stock in Older Subdivisions**	**Total Stock**
Undeveloped Lots: Without Infrastructure	0.0	0.7	0.7
Undeveloped Lots: With Infrastructure (Development-Ready)	2.7	4.2	6.9
Total	**2.7**	**4.9**	**7.6**

When examining historical demand data over the past ten years, the average number of single family building permits issued per year was 135, representing 7.2 years of residential building lot inventory given the current supply of undeveloped lots. Lots in newer subdivisions are estimated to last approximately 2.5 years.

Table 6: Estimated Inventory based on 10-Year Market Average
(135 permits/year)

Estimated Lot Inventory In Years *(Available Residential Lots as of December 31, 2016)*			
	Stock in Newer Subdivisions	**Stock in Older Subdivisions**	**Total Stock**
Undeveloped Lots: Without Infrastructure	0.0	0.7	0.7
Undeveloped Lots: With Infrastructure (Development-Ready)	2.5	4.0	6.5
Total	**2.5**	**4.7**	**7.2**

Conclusion

Analysis shows that 2016 demand for new, single family homes dropped approximately 15% from the previous year, going from 161 permits in 2015 down to 137 permits in 2016. Demand for duplex units also decreased, dropping by over 56% from 78 permits in 2015 to 34 permits in 2016. Apartment housing increased substantially from 7 permits in 2015 to 74 permits in 2016, a 957% increase.

Building Permits: 2015-2016			
	2015	**2016**	**% Change**
Single Family	161	137	-14.9%
Duplex	78	34	-56.4%
Apartments	7	74	957.1%
Total	**246**	**245**	**-0.4%**

Total residential lot supply decreased by ten percent from 2015. The largest absorption of lots was in newer subdivisions, with supply dropping 25% from the previous year. Supply of lots in older subdivisions increased by one percent compared to 2015.

The supply of development-ready, residential lots increased 6.2% with the drop in demand for single family housing seen in 2016. As compared to the previous year, there were 16 additional lots available in newer subdivisions (5% increase) and 36 additional lots available in older subdivisions (7% increase) for single family development.

Development-Ready Lots: 2015-2016			
	2015	**2016**	**% Change**
Newer Subdivisions	329	345	4.9%
Older Subdivisions	509	545	7.1%
Total	**838**	**890**	6.2%

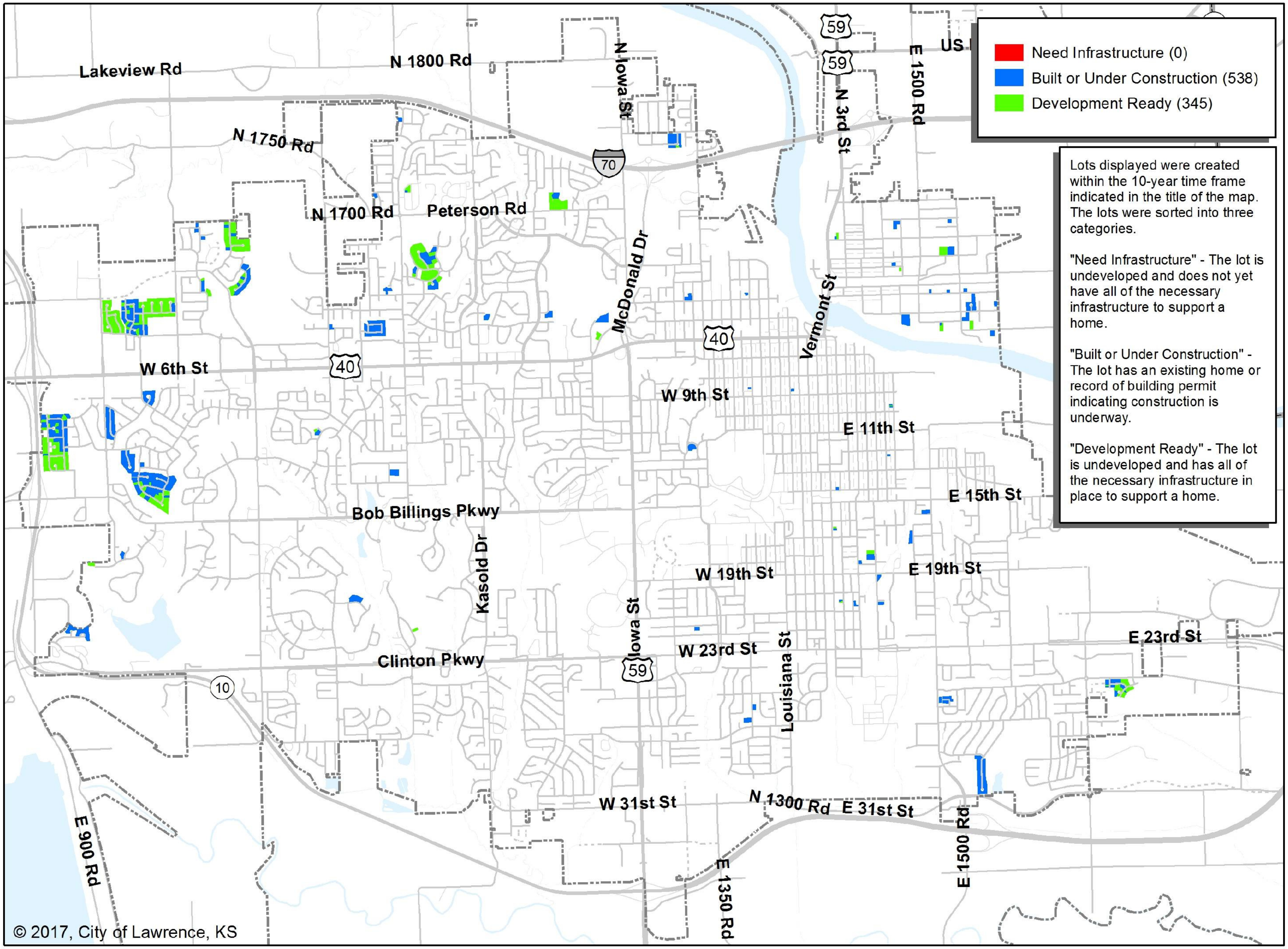
Adjusting for market demand (137 building permits issued in 2016), annual inventory of single-family lots increased by six percent (6.8 years in 2015 to 7.2 years in 2016).

Estimated Lot Inventory in Years: 2015-2016			
	2015	**2016**	**% Change**
Newer Subdivisions	2.8	2.5	-10.7%
Older Subdivisions	4	4.7	17.5%
Total	**6.8**	**7.2**	**5.9%**

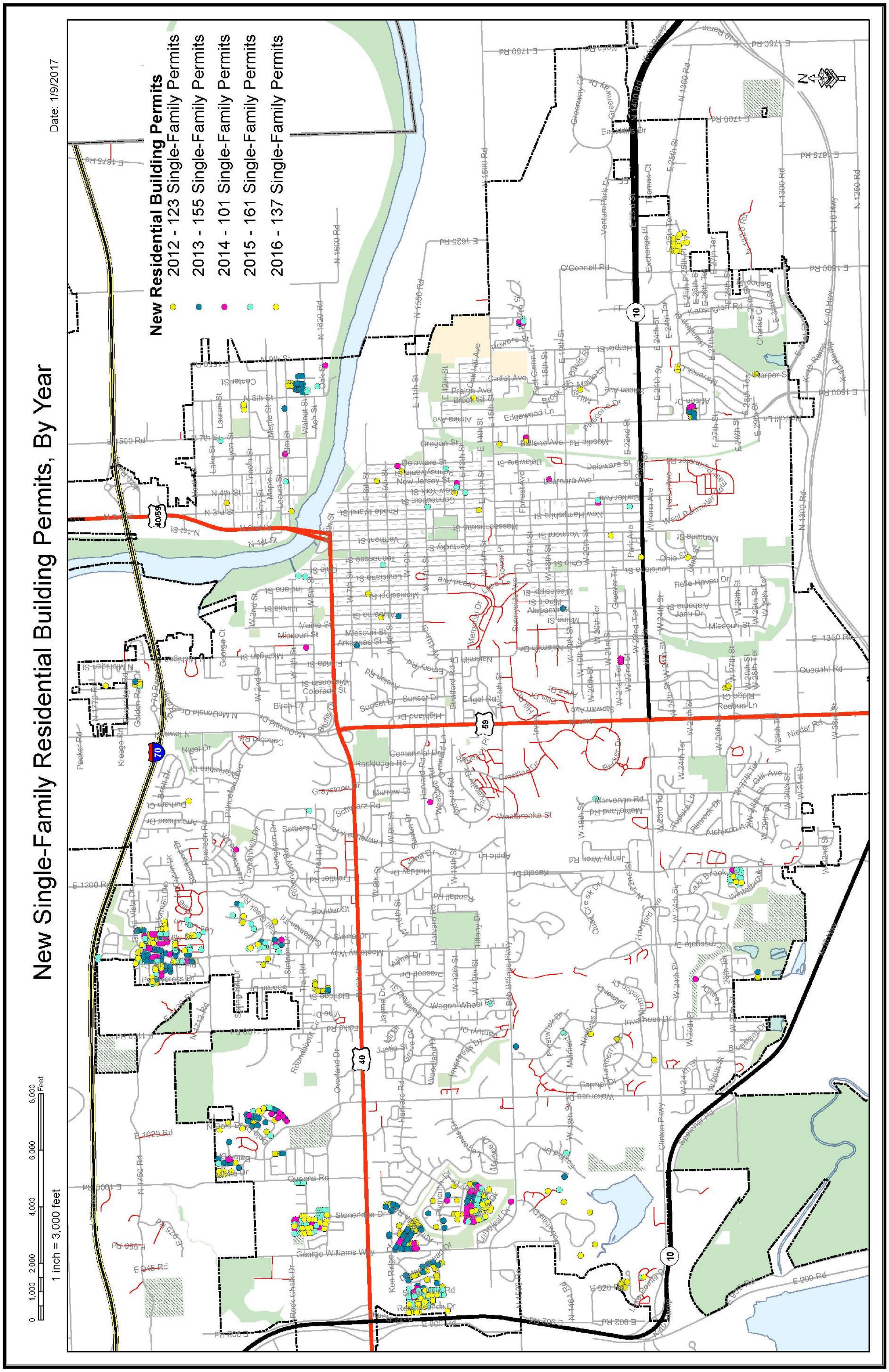
When averaging demand over the past five years (130 building permits per year), total lot inventory was at 7.6 years at the end of 2016. When averaging demand over the past 10 years (135 building permits per year), annual lot inventory was at 7.2 years at the end of 2016.

APPENDIX

Lawrence Single Family Residential Lot Inventory 2006-2016



5-Year Map: Building Permits by Year



10-Year Map: Building Permits by Year