

Memorandum
City of Lawrence
Utilities Department

TO: Linda Finger
FROM: Philip Ciesielski
CC: Debbie Van Saun
Roger Coffey
Dave Wagner
Date: June 17, 2005
RE: Mercato Preliminary Plat – Utility Department Review Comments
Regarding Sanitary Sewer

The following comments summarize the results of the Utility Department's review of the Mercato preliminary plat and the issues involving sanitary sewer service for this area.

The preliminary plat covers approximately 123 acres in the Baldwin Creek 2 (BC-2) Drainage Basin. With the exception of the far northwest 18 acres the area is within the City Limits and the Baldwin Creek No. 1 Benefit District. The preliminary plat proposes the construction of a new sanitary sewer lift station located in the northwest corner of the development that would collect flow and then pump it to the existing Lift Station No. 45. Lift Station No. 45's flow is pumped south across 6th Street and flows through the Yankee Tank Drainage Basin to the Four Seasons Holding and Pumping Complex.

Based on the proposed land uses, and the acreage indicated for each use, the Mercato development has the potential to generate sanitary sewer flows for a population equivalent of 2,576 persons. The information used to create the 215 acre Baldwin Creek No. 1 Benefit District and its associated Lift Station No. 45, and data from the *2003 Wastewater Master Plan*, indicate that the entire benefit district and lift station would accommodate a population equivalent of 1,320 persons. The lift station was constructed with a firm capacity of 1.1 million gallons per day (mgd) and has the capacity to serve a population equivalent of 1,600 to 2,200 depending on the peaking factor for the area. As such, the existing Lift Station No. 45 would be overloaded without any additional development in the benefit district's 92 remaining acres. Based on this the proposed development does not comply with the land use and population densities utilized in the creation of the Baldwin Creek No. 1 Benefit District. This is in addition to the fact that the development, while it proposes utilizing facilities designed and constructed for the benefit district, is not entirely contained within the limits of the benefit district.

As noted above the Mercato development has the potential to generate sanitary sewer flows for a population equivalent of 2,576 persons from the BC-2 drainage basin. The *2003 Wastewater Master Plan* anticipates a total population equivalent in the BC-2 drainage basin of 1,003 persons in 2010 and 2,160 persons in 2025. The

anticipated developed acres in the BC-2 drainage basin are 151 in 2010 and 337 in 2025. Note that the proposed Mercato development alone covers 123 acres. The proposed development does not conform to the population and development pattern anticipated in the *2003 Wastewater Master Plan*.

The *2003 Wastewater Master Plan* also took into account the eventual distribution of sanitary sewer flows between the existing Kaw WWTP and the pending Wakarusa WRF. Prior to the construction and start up of a Wakarusa WRF all flows will be directed to the Kaw WWTP. The anticipated distribution of the flow contribution from the BC-2 drainage basin based on population is as follows: 438 to the Wakarusa WRF, and 1611 to the Kaw WWTP. As noted previously the Mercato plat has the potential to generate sanitary sewer flows for a population equivalent of 2,576 persons and indicates its sanitary sewer flows will be accommodated by the existing Lift Station No.45. Flows from this lift station are to be treated by the Wakarusa WRF. The proposed plat does not indicate how or when the flows generated will be appropriately distributed to conform to the *2003 Wastewater Master Plan*.

Given the potential flows from this development there is additional concern regarding the sanitary sewer pipe network and pumping capacities downstream of Lift Station No.45. Should Lift Station No.45 be upgraded to handle the proposed development, the capacity of the downstream pipe network, and the Four Seasons Complex would likely need to be increased.

While this memo was requested to respond directly to the Mercato preliminary plat it is important to note the Oregon Trail development which is platted east of and adjacent to Mercato. Information I have indicates that the Oregon Trail preliminary plat predates the Mercato request. The Oregon Trail development has the potential to generate sanitary sewer flows for a population equivalent of an additional 969 persons in the benefit district. The impact of these two developments, as well the potential development of the remaining 92 acres in the benefit district, must be considered together.

It was requested that the Utility Department not only document its concerns with this development and the ability to provide sanitary sewer service, but also provide direction for the developer in their submission of alternative solutions.

The total development in this benefit district needs to take into account, and comply with, the capacity of the existing lift station and the land use and population figures used to design it. If development beyond the capacity of the existing lift station is allowed the handling of the excess capacity needs to comply with the recommendations of the *2003 Wastewater Master Plan* with regard to its collection and treatment. This would be flow to the north via gravity and then pumping east in the direction of the Kaw WWTP. The developers need to evaluate the requirement for the additional capacity and provide detailed plans and schedules which provide the infrastructure to accommodate the proposed developments and associated sanitary sewer flows.

City of Lawrence
Administrative Policy

SUBJECT Sanitary Sewer Extension Policy	APPLIES TO Utilities, Public Works and Planning Departments	EFFECTIVE DATE 1/12/99
APPROVED BY City Commission	TOTAL PAGES 2	POLICY NUMBER AP-76

1.0 **Purpose**

To establish a procedure for new and existing development and connection to the existing sanitary sewer system. This procedure will be administered by the Utilities, Public Works and Planning Departments. Please note: any reference made herein to the 1995 Wastewater Facility Master Plan shall include any subsequent updates.

2.0 **Policy**

- a. The Black and Veatch 1995 Wastewater Facility Master Plan as adopted by Resolution No. 5761, will be the guide to connection to the existing sanitary sewer system.
- b. Sanitary sewer flow calculations will be submitted with the preliminary plat. These flow calculations will be based on projected land use and the flow characteristics assigned to that use for both this development and the upstream portions of the drainage basin, according to the design criteria provided by Kansas Department of Health and Environment (KDHE).
- c. The KDHE design manual criteria will be used to determine design flow and maximum flow for lateral system improvements.
- d. The downstream characteristic of the system will also be investigated by a licensed engineer, according to KDHE criteria and any deficiencies in the downstream system will be noted. The investigation will be required for the gravity systems as well as for lift stations and their accompanying force mains. The investigation will be made on the downstream system until the proposed design flow is equal to or less than ten percent (10%) of the existing design flow. Results of this investigation will be provided to the City Engineer.
- e. If the downstream system is found deficient by the City Engineer, the following choices may be made by the City Engineer:
 - i. Approve the system enlargement with no conditions.
 - ii. Approve a portion of the system enlargement with or without conditions, based on the projected deficiencies (conditions may include limited building permits, timing of construction, etc.).
 - iii. Deny the system enlargement until downstream deficiencies are corrected.

The developer would have the option of correcting the deficiencies at their cost or waiting until the corrections are scheduled per the City's 1995 Wastewater Facility Master Plan and/or Capital Improvement Program. In either case, the design will be based on the criteria set forth in the 1995 Wastewater Facility Master Plan.

- iv Deny the system enlargement.
- f. If the improvements include a lift station, the City may deny sanitary sewer connections until gravity sewers are installed or until modifications are made to an existing lift station.
- g. Flow investigation will be for entire basin and any proposed discharge received from outside the drainage basin will be a negative considered in the system evaluation.
- h. The City may deny the sanitary sewer system extension for the entire development or allow a portion of the land to be developed.

3.0 Summary

- a. Sanitary sewers in new subdivision or the extension of the existing system will be designed according to KDHE standards. The sizing of the sewer will be governed by the entire tributary area.
- b. Relief lines and lift station modifications will be designed using 1995 Black and Veatch Waste Water Facility Master Plan criteria.
- c. If it is to the best interest of the City, additional capacity may be built into the system initially. If this is done, the developer will be required to pay for the equivalent contribution to the system from the development.
- d. Drainage basin wide sewer system improvements are encouraged so that the cost of the larger lines that would be required at the lower reaches of the basin may be spread over the entire basin. However, if a developer chooses to develop the lower reaches of the basin, and a larger line (greater than 8") is required, the entire cost is the responsibility of the developer.

Lake

- Item 21A A-01-02-05
Annexation of 17.52 acres
- Item 21B Z-01-08-05 Rezone
61.64 acres from A to PCD-2
- Item 21C Z-01-09-05 Rezone
19.89 acres from A to RO-1A
- Item 21D Z-01-10-05 Rezone
29.10 acres from A to RS-2
- Item 21E Z-01-11-05 Rezone
4.21 acres from A to RM-D
- Item 21F Z-01-12-05 Rezone
13.05 acres from A to RM-2
- Item 21G PP-05-10-05
Plat for Mercato

Item 4 PF-08-31-05
Glenwood Addition

Item 19A Z-07-46-05 Rezone
10.3 acres from A to RS-2

Item 19B PP-07-17-05
Doollittle Subdivision

Item PF-08-27-05
Fall Creek Farms 12th Plat

Item 3 FPD-08-11-05
Park West Gardens

Item 1 PF-08-28-05
Stoneridge East

Item 2A PP-08-18-05
Green Tree Subdivision #2

Item 2B PF-08-26-05
Green Tree Subdivision #2

Item 22A Z-08-50-05 Rezone
3.9 acres from PRD-2 to PID-1

Item 22B Z-08-51-05 Rezone
3.9 acres from PRD-2 to M-1

Commissioners, John Haase has asked that staff share this additional information with you regarding concerns he has with the Retail Market Study Analysis prepared by Development Strategies, the city's consultant, of the Mercato Retail Market Study. A series of three emails are included in this communication. The next two are from Kirk McClure in response to questions posed by Commissioner Haase and a response from Bob Lewis with Development Strategies. Paper copies will be mailed to all commissioners today and provided to the applicant's representatives.

Linda

From: John Haase [mailto:jhaase@haaseandlong.com]
Sent: Monday, October 03, 2005 10:37 PM
To: lfinger@ci.lawrence.ks.us
Subject: FW: Retail Square Footage in the City of Lawrence

Linda,

What follows is information I have shared with Kirk McClure asking for his evaluation. Section 3 of the planning commission bylaws provide as follows:

"Request for Additional Information by Commissioners. The ex parte restriction shall not preclude any member of the Commission from requesting additional information from any (applicant, Staff or third party) source to assist in deliberations. However, requests for information from anyone other than staff shall be made in writing and a copy of the request and the response will be forwarded to staff and made part of the public record for that Item."

Upon receipt of a response I will ensure that you receive a copy to be made a part of the public record.
Thanks. JH

Subject: Retail Square Footage in the City of Lawrence

Kirk,

Please find attached information given to the planning commission and some supplementary information. The study from Development Strategies, Inc. is in support of additional retail space in Lawrence. I am assuming you can sort all of this out and provide us with some guidance. This material will be considered at a planning commission meeting on 10/10/05. In addition to the attached material I have the following concern:

The report suggests that, by adding retail space, Lawrence can significantly improve its pull factor with respect to retail trade. In my judgment the report should include some convincing evidence to support this argument. Reilly's Law of Retail Gravitation would suggest that Lawrence is seriously disadvantaged in the competition for retail trade.

This is at the core of a very important discussion the community is about to have. Your input would be deeply appreciated. Please do not hesitate to contact me if any of this material requires clarification. Thanks.

John R. Haase
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Lecompton, Kansas 66050
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Cell: (785) 550-6826
Home Fax: (785) 887-6955

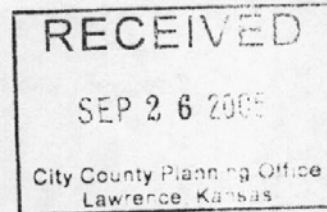
Item 21-B

DEVELOPMENT STRATEGIES®

PLANNING, CONSULTING, ANALYSIS, DESIGN, DEVELOPMENT, REAL ESTATE APPRAISAL

September 23, 2005

Ms. Linda M. Finger
Director
Lawrence/Douglas County Planning Office
6 East Sixth Street
P.O. Box 708
Lawrence, Kansas 66044



RE: Combined Retail Impact Potential of Bauer Farm, Northgate and Mercato Projects

Dear Ms. Finger:

This letter serves as our report on the combined potential impact that the three proposed retail developments, Bauer Farm, Northgate and The Mercato, could have on the city of Lawrence if they are to be built concurrently. Together, they would increase the retail floor area in Lawrence by 750,650 gross square feet, a thirteen percent increase over the existing retail space based on the recently completed database.

The proposed Northgate development would add 269,300 gross square feet of floor area to the city of Lawrence over nine phases, all of which would be in retail space. The proposed Bauer Farm development would add 168,350 gross square feet of floor area to the city of Lawrence in its first three phases, 36 percent of which would be in retail space (61,350 square feet). The Mercato would add 420,000 gross square feet of retail space to the city's current inventory. Separate analyses of these developments (in reports dated August and September 2005) revealed that the Lawrence market has the capacity to absorb each retail development individually given the city's retail buying power and the quantity of retail space that currently exists in the city.

Our analysis of the impact from simultaneous projects reveals that only with moderate to aggressive population growth can all three developments be absorbed by 2010. DSI's research and familiarity with the area support an assertion that the moderate projections are likely; however, we present all the scenarios to provide a full scope of the possibilities.

The recently completed database of retail space inventory concluded that there are nearly 5.8 million square feet of retail space in Lawrence. This total is occupied by a variety of retail and service businesses¹. A synopsis of the database findings can be found at the end of this letter in Table 4. The addition of Bauer Farm, Northgate, and The Mercato would bring the total up to 6.5 million square feet.

The city's population growth projections for 2010 (contained in *Horizon 2020*) suggest that Lawrence will need between 480,000 and 1.2 million more square feet of retail space in the next five years simply to maintain its current ratio of retail space per capita (70.5 square feet). Depending on which projections result, the three developments would either exceed demand by fifty-six percent or satisfy at least sixty-three percent of the need. Table 1 demonstrates that the city would need an additional 921,000 square

¹ Retail is defined using the North American Industrial Classification System (NAICS) to include businesses involved with merchandise trade, dining, or drinking places.

feet of retail space by 2010 under the moderate population projection, and almost 1.2 million square feet under the aggressive projection. The combined retail space of the three proposed projects, 750,650 sq. ft., would not exceed these demand scenarios.

The conservative population projection to 2010, however, would require the addition of just over 480,000 square feet of retail space in the city. Obviously, the square feet of the three projects would greatly exceed this added demand and could lead to markedly increased citywide vacancy rates.

Table 1: Combined Impact Analysis			
	Conservative	Moderate	Aggressive
Population ¹ (2004)	82,120	82,120	82,120
Retail Sq. Ft. ² (2005)	5,792,300	5,792,300	5,792,300
SF Per Capita	70.5	70.5	70.5
Population ³ (2010)	88,961	95,178	99,013
Population Increase/Yr.	1,140	2,176	2,816
Annual Demand for Retail SF	80,421	153,507	198,590
Total Demand by 2010	482,527	921,041	1,191,541
Bauer Farms, Northgate & Mercato ⁴	750,650	750,650	750,650
Percent of Total Demand	156%	82%	63%
Total SF post-development	6,542,950	6,542,950	6,542,950
SF per capita post-development	73.5	68.7	66.1
¹ Source: Survey of Buying Power 2004, Sales and Marketing Management			
² Source: City of Lawrence Retail Database, July 2005			
³ Source: City of Lawrence, Horizon 2020			
⁴ Source: Project site plans			

According to the database, an estimated 4.4 percent of the existing retail space inventory is presently vacant (255,400 s.f.). This low vacancy rate is consistent with our analysis of Lawrence's demand for retail space, which we discussed in detail in the individual reports. Moreover, it is well below the 8.0 percent threshold established in the city's *Horizon 2020 Plan*, further implying that there is room for the city to expand its retail space inventory without risking an undesirable vacancy rate.

If it is hypothetically assumed that the combined 750,650 square feet of retail space from the three developments is 100 percent occupied, with no changes elsewhere in the city, the city-wide vacancy rate would decrease to 3.9 percent, well below the 8.0 percent threshold.

Similarly, if the three developments only attain an average occupancy of 90% but cause additional vacancies elsewhere in the city, the city-wide vacancy will still not exceed 8.0% unless the vacancy rate for the existing inventory increases from 4.4% to greater than 8.0%.

Conversely, if it is assumed that the additional retail space from the three developments remains only half-occupied, without any change elsewhere in the city, the city-wide vacancy rate would increase from 4.4 percent to 9.6 percent, above the acceptable *Horizon 2020* threshold of 8.0 percent.

Table 2: Potential Combined Impact on Vacancy Rate

Combined Occupancy	Vacancy of Current Inventory		
	2.0%	4.4%	8.0%
100% occupied	1.8%	3.9%	7.1%
100% vacant	13.2%	15.4%	18.6%
50% vacant	7.5%	9.6%	12.8%
10% vacant	2.9%	5.0%	8.2%

We would not expect, however, that the three developments would remain semi-vacant, provided that the city achieves its moderate growth projections.² That is because, in our opinion, the Lawrence market has ample capacity to absorb more retail space in order to retain more of its own household buying power which is now being expended in other communities.³

When comparing Lawrence to its peer cities, we conclude that Lawrence could support a much larger retail space inventory even today relative to its own aggregate household income and buying power. The ratio of retail sales to buying power in Lawrence is significantly below that of similar cities, 0.59 versus an average of 0.95; similarly, its retail "pull factor", which measures the ability of the city to retain its own shoppers and to attract out-of-town shoppers, is below that of the average: 0.98 versus 1.15. Indeed, the city could broadly support approximately 650,000 more square feet of retail space *today* just to reach the average pull factor of the other cities—and that is before accounting for future population growth.

Table 3: Pull Factor Analysis

Kansas Retail Sales Per Capita	\$	13,624
Lawrence Retail Sales Per Capita	\$	13,290
Lawrence Pull Factor		0.98
Comparables Average Pull Factor		1.15
Lawrence Retail Sales to Reach Avg. PF	\$	1,286,623,000
Avg. Retail Sales Per SF	\$	200
Supportable Square Feet		6,433,100
Additional Square Feet to Reach Average		640,800

Development Strategies concludes, therefore, that Lawrence is indeed in need of additional retail space. Adding all three developments at once, however, could be more than the city needs or can handle in the short-term. The decision to approve all three projects depends in part on how confident city officials are regarding the population growth in the city. If they are confident that *at least* the moderate scenario will result, then, Lawrence could absorb the three developments concurrently by 2010 without significant negative impacts on existing retailers or the city-wide vacancy rate.

But, to ease the potential effects of a possible short term increase in the vacancy rate, it would be wise to suggest that the developers phase the retail components of each project, particularly Northgate (as is al-

² If the city only achieves the conservative population projections, then demand for retail space is only about 480,000 square feet. If the entire 750,000 square feet is built, supply will exceed demand and we assume that the three developments will average 65% occupancy (480,000 out of the 750,000 square feet). From the table, we infer that the city-wide vacancy will be nearly 8.0%.

³ The conclusions of this letter assume stable population growth and buying power.

Ms. Linda M. Finger
September 23, 2005

Page 4 of 5

ready proposed by the developer) and The Mercato (for which phasing information was not provided by the developer). Additionally, DSI suggests that the types and quality of retailers that may reside in the new developments be evaluated to ensure that they do not cause excessive vacation from the current inventory, which could cause a city-wide vacancy greater than 8.0%.

Respectfully submitted on behalf of
DEVELOPMENT STRATEGIES, INC.

Robert M. Lewis, AICP, CECd
Principal

Naomi B. Shanker
Real Estate Market Analyst

Attachment Page: Selected analytical tables.

APPENDIX – ADDITIONAL TABLES

Table 4: Lawrence Retail Space Square Feet by Classification

	Retail Trade	Dining	Bars	Non-Retail	Vacant	TOTAL
Square Feet	2,887,300	563,800	148,200	1,937,600	255,400	5,792,300
Pct. of Total	49.8%	9.7%	2.6%	33.5%	4.4%	100.0%

Source: Lawrence Database, July 2005.

Table 5: Horizon 2020 Population Projections

	2000	2010	2020	2030
LOW	80,098	88,961	100,076	111,191
MIDDLE	80,098	95,178	110,406	125,635
HIGH	80,098	99,013	122,394	151,296

Source: US Census Bureau and Lawrence/Douglas County Planning Department.

**Population & Households Estimated From Residential Units Permitted & Demolished
City of Lawrence, Kansas - Historical Perspective**

Year	U S Census Estimate as of July 1	U S Census	2.33% Growth (1960-90) Rate	Res. Units Issued Under Bldg Permit	Units Demolished	New Pop w/ vacancy	Total Population Estimate	Percentage Increase	Est. Housing Units (total)	Est. Occupied Units (Households)
1980	52,738	52,738	52,738	479			52,738		20,179	18,818
1981			53,968	295						
1982			55,226	367						
1983			56,514	517						
1984	54,197		57,832	535						
1985			59,180	567						
1986	56,490		60,560	911						
1987			61,972	972						
1988	59,460		63,417	947						
1989			64,896	333						
1990	65,950	65,608	65,608	535	16	1,130			25,894	24,522
1991	66,630		67,138	660	16	1,403	66,738	1.7%	26,413	25,013
1992	67,396		68,703	706	17	1,501	68,141	2.1%	27,057	25,623
1993	68,688		70,305	791	17	1,686	69,642	2.2%	27,746	26,275
1994	69,752		71,945	983	23	2,091	71,328	2.4%	28,520	27,008
1995	71,726		73,622	650	25	1,361	73,419	2.9%	29,480	27,918
1996	73,137		75,339	1,554	17	3,348	74,780	1.9%	30,105	28,509
1997	76,055		77,096	509	23	1,059	78,128	4.5%	31,642	29,965
1998	77,488		78,893	784	25	1,653	79,186	1.4%	32,128	30,425
1999	78,911		80,733	711	22	1,501	80,839	2.1%	32,887	31,144
2000		80,098	82,616	639	15	1,359			32,792	31,435
2001	80,917		84,541	946	21	2,038	81,457	1.7%	33,416	32,013
2002	81,604		86,510	819	8	1,787	83,495	2.5%	34,341	32,899
2003	82,120		88,526	874	11	1,902	85,282	2.1%	35,152	33,676
2004			90,589	635	19	1,357	87,184	2.2%	36,015	34,502
2005			92,699				88,541	1.6%	36,631	35,092

Note: Reporting of some elements began only in 1990.

Data depicted in blue are estimates made by the Planning Department using new housing unit projection techniques.

Data depicted in pink are population projections based in an annual population growth rate of 2.33%.

Data depicted in green is decennial census data.

All estimates are for January 1st.

Population & Households Estimated From Residential Units Permitted & Demolished

City of Lawrence, Kansas – Historical Perspective

October 6, 2005

The planning department has maintained a model for estimating population using building and demolition permit information. It would appear that single-family and multifamily data are represented in the model. It is unclear how vacancy levels are captured and factored into the model.

The model predicted a city population of 82,340 in the year 2000. The decennial census reported 80,098 – a difference of 2,242 or 2.8%. For the year 2003 the model forecast a population of 85,282. The interim census reported 82,120 – a difference of 3,162 or 3.85%.

It seems clear that the planning department model tends to contain a bias for predicting levels in excess of actual population. Building permits over the last 5 years are almost identical to the annual volume of permits issued from 1990 through 1999. From 1990 to 2000 the population increased from 65,608 to 80,098 or 14,490 – an increase equal to a 2% annual growth rate. Assuming there is a tight correlation between building permits and population growth, one could assume that the population in 2010 will be 94,588 ($80,098 + 14,490$), which is a 1.67% per annum growth rate from 2000 to 2010. This is very near the number 95,178, which is the moderate prediction contained in Horizon 2020.

Only two theories support a population of less than 94,000 to 95,000 by the year 2010: (1) there will be a sharp decline in new building permits between now and 2010; and/or the vacancy rate will be significantly higher in 2010 than it was in 2000. Unless the current sanitary sewer crisis impacts building activity over the next five year, it seems unlikely that population will be much less than the moderate forecast contained in Horizon 2020.

	CONSERVATIVE	MODERATE	AGGRESSIVE
Population in 2005	86,288	86,288	86,288
Retail Square Feet in 2005	5,792,300	5,792,300	5,792,300
Square Feet Per Capita	67.13	67.13	67.13
Population in 2010	88,961	95,178	99,013
Population Increase Per Year	535	1,778	2,545
Annual Demand for Retail Square Footage	35,886	119,353	170,840
Total Demand by 2010	179,432	596,764	854,198
Bauer Farms, Northgate, & Mercato	750,650	750,650	750,650
Other Retail Commercial	300,000	300,000	300,000
Total Retail Commercial	1,050,650	1,050,650	1,050,650
Percent of Total Demand	586%	176%	123%
Total Square Feet Post Development	6,842,950	6,842,950	6,842,950
Square Feet Per Capita Post Development	76.92	71.90	69.11

This is a replication of Table 1 of the Development Strategies study. It corrects two flaws in the original study: (1) properly computes square feet per capita in 2005; and (2) includes retail commercial space, in addition to the three named projects, that is likely to be built by 2010. In computing square feet per capital DSI used a 2003 census bureau estimate (82,120) and divided it into the actual commercial retail square footage measured in 2005. There exists a strong argument that the Lawrence population is growing at the moderate rate modeled in Horizon 2020. This being the case, the 2005 population is 86,288. I have estimated that 300,000 square feet of retail commercial will be built in addition to the three named projects. A 200,000 square foot center is planned along K-10 west of O'Connell Road. It seems reasonable to assume that at least 100,000 square feet will be built elsewhere around the city.

Linda Finger

From: Bob Lewis [RML@development-strategies.com]
Sent: Thursday, October 06, 2005 12:59 PM
To: Linda Finger
Subject: RE: Retail Square Footage in the City of Lawrence

Memorandum

To: Linda Finger – City of Lawrence, Kansas
From: Bob Lewis
Copy: Richard Ward, Patrick Shortal, and Naomi Shanker - DSI
Date: October 6, 2005
Re: Response to Issues Raised by John Haase and Kirk McClure

Let me simply respond to Kirk McClure's commentary in the order sent by him.

DSI Findings

It seems to me that it almost goes without saying that population growth, of any positive kind, means more buying power, thus more supportable square feet assuming that the city is in some form of equilibrium at present (more on that later with regard to vacancy rates).

We do conclude that the city could support more retail space IF the city wishes to reach an average pull factor, with that average based on a number of comparable kinds of cities. Granted, Lawrence has to grapple with the Kansas City gravity power, so we leave the ultimate decisions on this growth up to Lawrence officials. But we also think that, on the face of it, Lawrence is under-stored, so to speak, even in light of the KC power.

DSI Report Does Not Model Retail Spending Over Time

Well, yes and no. Certainly, we don't have access to actual retail spending figures for Lawrence itself. Few people do. Our purpose, however, was to use proxy measures (e.g., Survey of Buying Power) using data that is presumed consistently gathered across geographies (that is, across comparable cities). We also looked at Lawrence's trends over the past decade ("over time"). We aren't saying that the Survey of Buying Power is perfectly accurate, but we are saying that any errors in the Lawrence data are consistent with errors in the comparable cities' data. And we assume that trend lines from this data are consistent with whatever the "real" trend lines would be (this is a principle of national GDP measures, too, by the way). So comparisons are reasonable.

Yes, it would be beneficial if city staff could analyze actual retail sales data. I don't know where you get that except from sales tax information from the state. Keep in mind, however, that even that data are frequently inexact because, for instance, there can be varying tax rates for different goods (groceries are sometimes taxed less, etc.--though I can't speak for Kansas). Food stamp usage doesn't typically generate sales tax information, though it becomes income for the grocer. Automobile sales taxes might be sent to residents' cities, not retained in Lawrence. Non-profits may not be paying taxes, etc.

In short, we have found that, without substantial budgets for research, even sales tax data are suspect. But, looked at over time, the trend lines may be accurate, assuming that the same reporting "errors" are consistent over time.

10/6/2005

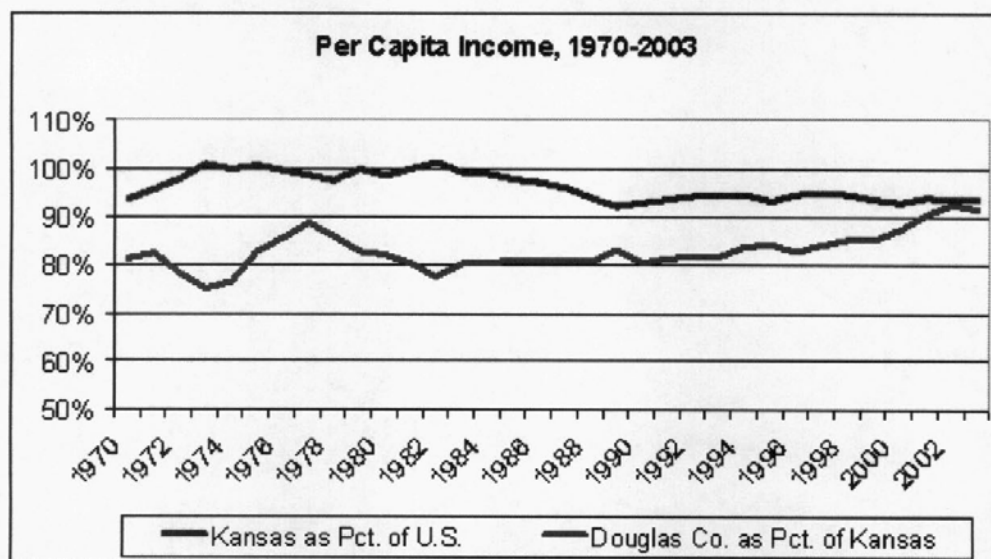
10/6/2005

Thus, I would challenge that such analysis would be any better a measure of demand for retail space than, say, the Survey of Buying Power or the U.S. Department of Labor's Consumer Expenditure Survey.

Regarding the aging population, I don't think it is aging all that quickly in general. Moreover, retail space is, as you know from the inventory, occupied by personal service merchants who tend to be used more by older and more affluent customers; that is, they shift their spending from retail *goods* to retail *services*. Thus, we'd argue for a broader definition of "retail" but, at this time, we all have to use available data (e.g., Survey of Buying Power or sales tax revenues) coupled with known spending patterns by age groups and income groups. In short, the aging population argument is all but moot—although it is less moot for retail goods than for retail services. But we need floor area for both.

Regarding earnings not keeping pace with inflation, the time period described by Mr. McClure is pretty short—2002 to 2004. The entire U.S. economy was sluggish at the same time; lots of places didn't keep pace. Planning for the development and operation of retail space, however, requires long term thinking when, any economist will tell you, real income growth will keep ahead of inflation if the local economy is reasonably strong itself. I'd argue that Lawrence is doing well and should do so well into the future. You shouldn't make retail development decisions based on just 2-3 years of a sluggish national economy.

Moreover, as the chart below shows, Douglas County's income has more or less reached a par with the state of Kansas over the long run, in this case from 1970 to 2003, using data from the U.S. Bureau of Labor Statistics. Income on the graph, by the way, includes more than wages, as referenced by Mr. McClure. The long term trends for Douglas County point toward a stronger economy relative to the state (which is what I would assume in any event owing to the county's increasing interactions with greater Kansas City).



I can't argue with the note that, as Lawrence grows, it gains the capacity to attract more stores. But I can argue that it doesn't necessarily lessen the leakage problem. If Lawrence is leaking a lot of sales today, adding more people means that more stores are needed just to retain the same leakage rate. To stem the leakage, store growth has to exceed population growth. But small cities almost always have to deal with some amount of leakage, so the size of the "gap" becomes the important policy question in Lawrence.

A word regarding "demand" and "spending amounts" is now in order. Knowing the amount of retail sales in Lawrence, as discussed above, is interesting, but doesn't tell us a thing about the *demand* for retail spending created by Lawrence households. If the demand for spending (which is a function of income) cannot be met in Lawrence, then households will shop elsewhere (e.g., KC). So spending amounts only tell us what is being spent in Lawrence at the present time, not what could be captured if more retail space existed in Lawrence. One of our conclusions is that Lawrence is leaking quite a bit of its "spending amounts" to other places. Whether that's a problem for Lawrence is a policy question for the city; we simply point out that Lawrence doesn't seem to be capturing as much of those spending amounts as many of its peers.

DSI Report is Premised Upon Population Growth as a Proxy for Retail Spending

I think Mr. McClure broadly agrees with our use of population growth as an indicator of future growth in retail spending demand, using assumptions as he notes such as some stability in spending ratios, etc. The issue becomes, I think, what that *future population* growth will be. In that regard, DSI was not charged with determining a better set of projections or estimates of Lawrence's population. We simply used what was available from the city's official comprehensive plan. If the city thinks those rates of growth are realistic, who are we to argue, especially when they both seem reasonable and we were not charged with recommending adjustments?

Having said that, there is always room for re-calculation of the projections, as Mr. McClure attempts. But the October 6 analysis of the planning department's model makes clear that *Horizon 2020's* numbers are still within the realm of realistic expectations. Thus, I wouldn't change the population premise of our sales projection analysis.

The DSI Report Could Be Misleading on the Issue of Leakage

Yes, it could. But that's why we used so many comparable cities in our analysis. And Lawrence is way below average in terms of capture rates. So we don't think we are grossly misleading; we are simply pointing out that Lawrence could support more retail space than it has to date. This isn't to say we are recommending such steps but that, if Lawrence wants to add space, the market can absorb it more readily than is, perhaps, generally thought.

Yes, it's possibly true that Lawrence alone cannot support a Dillard's (arguable) or a Nordstrom's (no argument) by itself. Indeed, it can be argued that Johnson County can't support a Nordstrom's by itself; after all, it relies on Douglas County shoppers, too. But the biggest buying power is in Johnson, so such a store will opt for that location, obviously. It is correct to assume that not all buying power (on average) can be retained in Lawrence. We wouldn't argue for that. But we are suggesting that Lawrence can readily retain more than it does now.

Still, let me not leave the impression that we urge more growth just for the sake of growth. Legitimately, as we have stated, Lawrence wants to preserve and enhance the competitive stature of downtown Lawrence and some other established retail locations. Thus, edge retail development should be very carefully scrutinized. And some retailers who would locate on the edge should be lured downtown instead, if possible. But we would also argue that, without some edge growth (and more downtown changes), the growing population and incomes in Lawrence will cause more leakage to Johnson or Wyandotte Counties.

As to vacancy rates, we can't argue that some retail space is sitting vacant. In fact, 4.4 percent, according to the detailed inventory of space conducted by the city itself under guidance of DSI (which is a consistent number with Grubb & Ellis). But all markets have and need vacant space, and we can argue that 4.4 percent is an indicator of a pretty normal and healthy market (perhaps on the tight side, but not much).

Yes, supply follows demand. That's probably one reason why three large retail proposals are pending for the northwest part of Lawrence. I haven't counted them, but there are many new houses out there. And it's an increasingly accessible area (road improvements). Demand is growing; supply wants to follow. That pattern in Lawrence is fully consistent with economic theory. DSI certainly isn't suggesting to Lawrence that more space be built to attract demand. We are saying that a seemingly large amount of unmet demand is already present and that more is coming. It's up to the city to determine if more supply will be allowed to address that demand (thus minimizing and reducing leakage while increasing sales tax revenues).

Note on the Gravity Model

No arguments here, I think. Well stated. Indeed, big city shoppers will tend to shop in even bigger cities for certain goods and services, not the other way around (on a net basis). It is very clear that Chicagoans, for instance, will go to New York much more often than vice versa. St. Louisans go to Chicago, not to Kansas City; the gravity is stronger toward Chicago. And Lawrence will go to Kansas City. This is a well worn theory that stands most of the test of time.

But that doesn't mean that what seems to be equilibrium today has to be that way. Indeed, we would argue that

Lawrence is letting Kansas City attract more than its gravity would naturally command. And with further Lawrence growth, it gains more density and gravity for itself.

Accuracy of Data

While the accuracy of the recent inventory seems to be in order with Mr. McClure, he raises an important question with regard to what we all decided would be called "retail space." In essence, we (DSI and City of Lawrence) defined it as space occupied by retailers and/or space found in typical retail locations regardless of the occupant. If occupied, however, we did not call it "vacant." Instead, we called it occupied by non-retailers. In that sense, the actual retail vacancy rate is higher than 4.4% if we assume that the non-retailers should be excluded from the count (but that their spaces should be retained in the inventory).

Thus, if the inventory process found an office user in a retail location, it was counted as retail space and occupied. Certainly, an abundance of non-retailers in otherwise retail space suggests that there is something wrong with the supply/demand equation if such space is not occupied by a "real" retailer. But I wouldn't yet go so far as to say that office tenants are an indicator of a diminished retail demand.

Indeed, it may simply be that office supply is the problem. Developers haven't yet figured out an affordable way to provide office space for these office users in an environment that exposes them to their clients most efficiently. It may be that many of those office users are in retail spaces on purpose because most of their clientele are retail customers at the same time (e.g., H&R Block offices don't want to be on the 15th floor of a downtown office building when their customers are really "retail" shoppers).

Moreover, some of that retail space may be functionally obsolete for today's retailers. Certainly, downtown has that problem all too often. That's not to criticize downtown, but it is to admit that modern retailing prefers larger floor areas with lots of nearby parking (etc.) which is inconsistent with most downtown buildings. Likewise for many suburban settings. How many strip centers are effectively obsolete these days—or dominated by non-retail tenants? Instead, the retailing industry seeks high traffic, highly accessible locations with acres of parking (even if not used most of the time, or even shared with adjacent users). Some retail centers, therefore, become effectively obsolete for various market reasons; they may also have bays that are too small, or may lack either a major anchor or the space to support one of today's major anchors).

Yes, adding more retail space will exacerbate the problem of too much space, but proposals for large retail centers provide clear evidence that the retail sector is changing and that older retail locations/buildings need to either adapt to new expectations or to different types of development (conversion to housing or to an office park). Indeed, this is a long time competitive problem for downtown, as you well know.

What's a solution? One is to prevent more retail development until the existing space is better occupied by real retailers. This is unrealistic. Retail developers will simply get the message to stay away from Lawrence while the functionally obsolete spaces go increasingly vacant or under-occupied. The Lawrence inventory will then not be refreshed and even local shoppers will do more of their shopping in more up-to-date locations. So Lawrence needs to adapt to these changes by accommodating new retail developments (which make shopping more convenient for the local market) while helping existing centers either adapt to different retail niches or change land uses altogether.

Robert M. Lewis, AICP, CEC

Principal and President

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Linda Finger

From: John Haase [jhaase@haaseandlong.com]
Sent: Thursday, October 06, 2005 9:25 AM
To: Linda Finger
Subject: RE: Retail Square Footage in the City of Lawrence

From: McClure, Kirk [mailto:mcclure@ku.edu]
Sent: Wednesday, October 05, 2005 4:23 PM
To: John Haase
Subject: RE: Retail Square Footage in the City of Lawrence

John,

Thanks for sending this information. I am always happy to assist.

DSI Findings

DSI finds that Lawrence could absorb additional retail space if the City's population growth is moderate (2.5% growth per year) or aggressive (3.2% growth per year)

DSI finds that "the city could broadly support approximately 650,000 more square feet of retail space today just to reach the average pull factor of other cities. . ."

DSI Report Does Not Model Retail Spending Over Time

The DSI report does not have access to retail spending figures. These data are available only to City staff. Rather than assume that population is a good proxy for retail demand, it would be helpful for the planning staff to look at actual retail spending data to show the trends in this figure. This is a much better measure of demand for retail space.

Three trends suggest that retail spending may not be growing at the same rate as population growth.

First, the population is aging. As individuals age, they tend to spend a smaller percentage of their income on retail goods and services.

Second, earnings in Lawrence have not kept pace with inflation. (Kansas wages rose by 6.2% from 2002 to 2004 while inflation rose by 5.0%. In Lawrence, wages rose by only 3.9%. Thus, there was a decline in the standard of living of Lawrence workers.) As the real buying power of workers' incomes decline, this is likely to reduce retail spending. Individuals can only slowly reduce their housing and transportation consumption as incomes decline; they can easily reduce their retail spending.

Third, as Lawrence grows, it gains the capacity to attract stores that it could not previously support (e.g.: Best Buy). This should lessen the leakage problem over time.

Following spending amounts rather than population counts will correct for these issues.

DSI Report is Premised Upon Population Growth as a Proxy for Retail Spending

In the absence of good retail spending data, it is commonplace to use a population count as a proxy for retail demand in a market analysis. As long as the income growth and the propensity to spend income on retail goods are stable, this is not a bad approach. The accuracy of the market analysis will then depend upon the quality of the population projections and the assumptions of income growth and spending.

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DSI Assumes Very Strong Population Growth

The DSI seems to have adopted extremely aggressive population growth figures.

Below is a quick list of growth rates for comparison:

<i>Source</i>	<i>Annual Rate</i>	<i>Note</i>
Census	2.0%	Census growth rate during the 1990s
Census	0.6%	Projected growth rate of Lawrence 2000 to 2004
DSI	1.3%	Conservative growth rate 2004 to 2010
	2.5%	Moderate growth rate 2004 to 2010
	3.2%	Aggressive growth rate 2004 to 2010

Even DSI's conservative growth rate is well above the current projection by the Census Bureau. DSI's moderate and aggressive growth rates are whole multiples of the Census Bureau's projected growth rates.

DSI's moderate and aggressive growth rates assume that the rate of growth in Lawrence during 2004 to 2010 will exceed the City's growth rate during the 1990s. There appears to be no reason to believe that Lawrence will grow faster in the next few years than it has in the past. There is evidence that it may grow at a slower rate. Rental vacancies are high, home sales are slowing, and school enrollments are down. These all suggest that population projections should be prepared assuming slower, not faster growth.

The projections can be recast with growth rates of:

<i>Alternative</i>	<i>Growth Rate</i>	<i>Note</i>	<i>Retail Space 2010</i>
Conservative	0.6%	Suggested by the Census Bureau	208,732
Moderate	1.3%	Midpoint	463,671
Aggressive	2.0%	The rate experience in the 1990s	729,893

Under either the conservative or the moderate projections, the 750,650 in the subject properties would take the community into an overbuilt condition. Even the aggressive projection does not generate quite enough demand for the space.

Conclusion: DSI's projections are premised on population projections that are overly optimistic, leading to incorrect conclusions.

The DSI Report Could Be Misleading on the Issue of Leakage

DSI's statements on the leakage of retail spending to other communities could be misleading. If the spending by Lawrence residents in other jurisdictions suddenly came back to Lawrence, this spending could support more space. However, in the Lawrence market, retail space is sitting vacant. Thus, spending is not being driven out of town by a lack of retail space; the spending is leaving because some retail options are only located in larger cities. The Oak Park Mall serves as an example. The Dillard's and Nordstrom's stores require a very large pool of high-income shoppers to support these stores. If built in Lawrence they would fail for a lack of sufficient high-income shoppers. Without these stores, some high-income shoppers leave Lawrence to spend their dollars at the Oak Park Mall.

In an ideal setting, Lawrence would capture all of the retail spending of its residents. However, there will be leakage in both directions. (Basketball fans will come to Lawrence in spite of UMKC games; shoppers in Lawrence will travel to the Oak Park Mall in spite of Weavers and Talbot's.)

Local government can address issues of preventable leakage (encouraging the development of stores that can be supported locally, e.g.: Home Depot and Best Buy). We cannot alter the market-driven thresholds for stores than cannot now be supported in Lawrence (Dillard's and Nordstrom's). The DSI report seems to suggest that more space will reduce leakage. Read this way would be a big mistake.

Economics tells us that supply follows demand; not the other way around. If we build space, it will not cause more spending; it will only create more vacancy elsewhere in the community. "Build it, and they will come." It's great in baseball movies, but it is dangerous thinking in real estate economics.

Note on the Gravity Model

The Gravity Model is valid in that it suggests that each market base will support space in proportion to its scale. Scale may be measured in retail spending, but this is often proxied by population counts. The gravity model assumes that a consumer will travel to a shopping alternative based upon the pull of competing centers. This means that a larger population base will have more pull than a small population base as the larger can support both more square feet of space and a broader range of types of space.

The model works well for general goods such as groceries. People will travel a little further to a larger supermarket given its pull.

Where the gravity model breaks down is that any market, such as the market for retail space, becomes a set of submarkets. People will travel to other markets for specialized goods (Kansas Citians travel to Lawrence for the Etc. Shop, and Lawrencians travel to Kansas City for the Plaza).

Accuracy of the Data

Stock of Space. The accuracy of the inventory data may be called into question. The report indicates that the total stock contains about 5.8 million square feet of space. This appears to be a good approximation. A late 1990s study found 4.5 million square feet of space using a restrictive definition of retail. Thus, a gross total of 5.8 million seems reasonable.

Vacancy Rate. The report uses a vacancy rate of 4.4 percent, or 255,400 square feet. This number may assume that retail space leased for office use is no longer retail space. This issue becomes tricky in that some space has been converted out of retail use. For example, the Riverfront Mall (150,000 square feet) can no longer be easily thought of as retail space. However, the I-70 Business Park (formerly the Tanger Mall at 95,000 square feet), much of the Southern Hills Mall and the anchor store in the 10 Marketplace Center remain retail space. They are simply occupied by offices at the present. This stock of retail space now in office usage should probably be thought of as vacant retail space.

These retail centers have been leased for office use because of the low demand for retail space. To a retail property owner, leasing retail space for office uses is a last resort. Retail leases provide a higher return, but an office lease is preferred to vacancy. These office leases are further indications that the demand for additional retail space is very soft. Adding more retail space to the stock will only exacerbate this problem.

Expansion of the Stock. The DSI report assumes that the only expansion of the stock of retail space will be in the three subject properties. This seems highly unlikely. First, the City has partnered with private developers to redevelop the 900 block of New Hampshire Street downtown. This downtown project is in direct competition with the subject properties for scarce retail leases. This competition could threaten the downtown project and endanger the capacity of the City to repay the debt on the parking garage built as part of the redevelopment plan. Second, as new subdivisions are developed over the next 5 years, neighborhood shopping centers will be proposed to serve these developments.

Analysis of the City's capacity to absorb more retail space should recognize that retail growth may occur elsewhere.

I hope that this is helpful.

Feel free to contact me if you want to discuss this further.

All the best,

Kirk

10/6/2005

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From: John Haase [mailto:jhaase@haaseandlong.com]
Sent: Monday, October 03, 2005 8:51 PM
To: mcclure@falcon.cc.ukans.edu; McClure, Kirk; melin@sunflower.com
Cc: melin@sunflower.com; Burress, David A
Subject: Retail Square Footage in the City of Lawrence

Kirk,
Please find attached information given to the planning commission and some supplementary information. The study from Development Strategies, Inc. is in support of additional retail space in Lawrence. I am assuming you can sort all of this out and provide us with some guidance. This material will be considered at a planning commission meeting on 10/10/05. In addition to the attached material I have the following concern:
The report suggests that, by adding retail space, Lawrence can significantly improve its pull factor with respect to retail trade. In my judgment the report should include some convincing evidence to support this argument. Reilly's Law of Retail Gravitation would suggest that Lawrence is seriously disadvantaged in the competition for retail trade.

This is at the core of a very important discussion the community is about to have. Your input would be deeply appreciated. Please do not hesitate to contact me if any of this material requires clarification. Thanks.

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10/6/2005