Appendix H

Urban Decay Analysis

Riverbank Crossroads West Specific Plan Urban Decay Analysis

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APPLIED DEVELOPMENT ECONOMICS

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1. PROJECT DESCRIPTION AND MARKET SETTING

This report summarizes the potential economic impacts and potential for urban decay effects that would result from full implementation of the Crossroads West Specific Plan (CWSP). In particular, this study focuses on the potential effects from the retail commercial development component of the CWSP.

1.1 PROJECT DESCRIPTION

The Specific Plan proposes multiple uses and designates land uses for a total of 380.8 acres, with most of the land area designated for housing. The total amount of projected housing ranges from 1,514 to 2,852 dwelling units.

The proposed commercial development will be built as part of two mixed use areas ("MU-1" and "MU-2"). These mixed use districts will include a built-out retail commercial square footage ranging from 387,000 to 577,000 SF.

The MU-1 area includes a total of 54.5 acres, with a minimum of 39 acres for retail commercial uses. With the proposed floor area ratio (maximum of 0.30 FAR), the proposed retail commercial area will range from 360,000 to 550,000 SF. The MU-1 area could also include housing, with up to 350 dwelling units. The MU-2 area includes 5.0 acres, with land set aside for 27,000 SF of retail commercial uses and between 25 and 50 dwelling units.

The CWSP area is bordered by Claribel Road to the south and Oakdale Road to the east. The MU-1 area retail commercial uses would be at the northwest corner of Claribel and Oakdale roads.

The existing Crossroads of Riverbank shopping center is directly across the street from the designated MU-1 area. That existing 528,000 SF center was built between 2005 and 2008, with additional pads built between 2013 and 2017.. Major tenants at the Crossroads of Riverbank center include a discount department store, home improvement center, electronics/appliances store, supermarket, clothing stores, restaurants, and other specialty retail stores.

POTENTIAL PROJECT RETAIL SALES

Because the tenant mix for the commercial developments is not known at this point, the analysis is based entirely on a more generic and aggregated summation of the retail market. In order to calculate potential retail sales, the analysis used an aggregated national benchmark for retail tenant productivity from CoStar showing an average of $330 in annual sales per square foot.[1]

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[1] CoStar Group; "RETAIL OUTLOOK: Shopping Center Owners Brace for More Downsizing as Space Rationalization Still in Early Stages"; January 4, 2017.

Using this benchmark, the projected retail sales for the CWSP retail commercial developments range from $127.7 million to $190.4 million.[2] The actual retail sales for the completed development will depend on the retail tenant mix, and whether any portion of the development will incorporate other types of uses, such as professional offices and other services. With more building area going to non-retail uses, the expected retail sales would be less. In addition, the national benchmark might differ considerably from the sales per square foot that stores located in Stanislaus County and the Central Valley region can attract.

Table 1-1: Crossroads West Retail Commercial Area and Projected Sales

	Low	High
Retail Area (SF)	387,000	577,000
Sales Per SF	$330	$330
Projected Sales	$127,710,000	$190,410,000

Source: ADE, Inc.; data from CoStar, and DeNovo Planning Group.

1.2 RETAIL LEAKAGE ANALYSIS

An analysis of the proposed project's impacts depends significantly on the market demand for its uses. Whether the market has enough excess consumer spending that a project can absorb, or if its market viability depends on taking sales away from existing local stores, are vital issues to consider

It is important to note that the retail analysis measures the proposed project's impacts based on existing market conditions, using retail sales and household figures for 2016. The analysis in this section does not take into account future population growth, which adds market area spending, and reduces the sales that could potentially be taken away from existing stores. Discussion of future growth can be found in Chapter 2, which discusses mitigations from future growth.

Accordingly, the information below only estimates the amount of new sales that CWSP retail commercial uses would potentially attract to Riverbank, and the sales that will be taken from existing stores, based solely on existing conditions. This represents the most extreme hypothetical case, and does not account for the more likely scenarios in which any retail commercial development would phase in alongside new housing development and other regional household growth.

REGIONAL TRADE AREA

Figure 1 shows the regional market trade area in which the proposed shopping center is located (see below). The primary market area within the regional market trade area is the City of Riverbank. The secondary market comprises the cities, unincorporated places, and census block groups outside of the City of Riverbank and within the indicated boundary.

The northern and southern boundaries of the regional market trade area were delineated with the cities of Escalon and Valley Home, to the north, and Modesto, to the south. Census block groups

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[2] The $330 per SF benchmark represents a national average for publicly traded retail tenants across multiple retail categories, as observed by CoStar Group. Actual retailer productivity will vary considerably by store category and individual retail tenants.

around Escalon and Valley Home are included in the market area on the theory that residents in these places who are employed in Modesto (and points south of Modesto) will commute along roads that bring them close to Riverbank. One very large Stanislaus County Census block group (block group 2 of Census tract 1.01) near unincorporated Valley Home contributes to the non-uniform shape of the regional market trade area. Salida and Ripon to the west of Riverbank are not included in the trade area on the assumption that residents there have an abundance of easily-accessible regional shopping destination to choose from, in Manteca to the north or the various Modesto destinations along Highway 99. For the same reason, cities, unincorporated areas, and census block groups west and south of Modesto are also excluded from the regional market trade area. Waterford and Hickman to the southeast of the project area are included given the roads connecting these places with Oakdale, which allows Riverbank to compete for traffic on the Oakdale-to-Waterford-Hickman corridor.[3]

Figure 1: Crossroads West Regional Market Trade Area
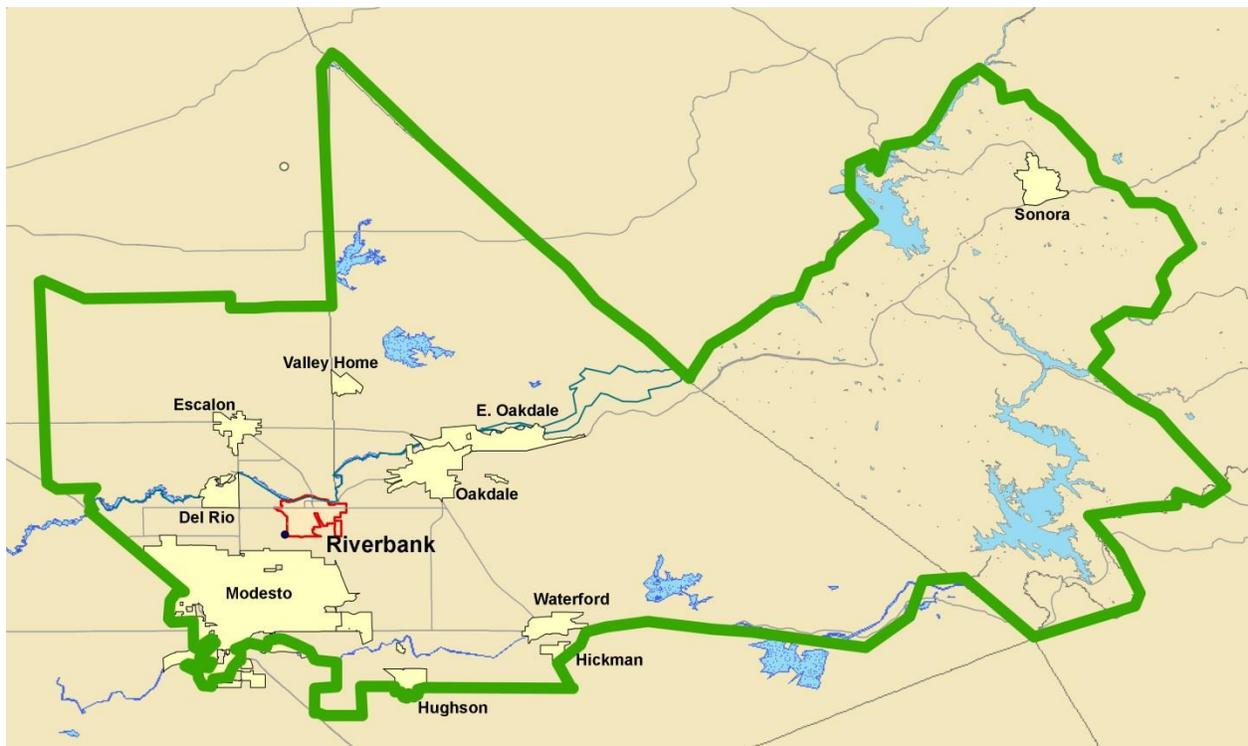
HOUSEHOLD DEMOGRAPHICS – PRIMARY AND SECONDARY MARKET AREAS

According to the most current demographic data from the US Census American Community Survey (ACS), there are 7,041 households in the City of Riverbank (Table 1) with an average household income of around $69,800.

**Table 1-2: Primary Market Area Households by Income Group:
Total Households and Weighted Household Capture**

| | Primary Market Area: Riverbank | | | | | |
| | All Households | | | Households After Market Share/Gravity Model | | |
	All	Home-owners	Renters	All	Home-owners	Renters
Total	7,041	4,848	2,193	2,888	1,989	899
Less than $10,000	228	79	149	93	32	61
$10,000 to $14,999	305	119	186	125	49	76
$15,000 to $19,999	331	130	201	135	53	82
$20,000 to $24,999	342	173	169	140	71	69
$25,000 to $29,999	273	138	135	112	57	55
$30,000 to $34,999	439	222	217	180	91	89
$35,000 to $39,999	438	272	166	180	112	68
$40,000 to $44,999	261	162	99	107	66	41
$45,000 to $49,999	332	206	126	137	85	52
$50,000 to $59,999	570	432	138	234	177	57
$60,000 to $74,999	1,018	771	247	417	316	101
$75,000 to $99,999	960	836	124	394	343	51
$100,000 to $124,999	811	661	150	333	271	62
$125,000 to $149,999	241	197	44	99	81	18
$150,000 to $199,999	321	294	27	132	121	11
$200,000 or more	171	156	15	70	64	6
Avg. Income	$69,814	$80,080	$47,120	$69,812	$80,080	$47,094

Source: ADE, Inc.; data from US Census ACS 5-Year 2011-2015 Sample

Riverbank has a total of 7,041 households. Of the 7,041 households, we estimate that 2,888 Riverbank households (capture rate of about 41 percent) would potentially support the CWSP retail commercial uses. Potential spending is based on the 41 percent capture rate, rather than the total of 7,041 households.

The estimated number of households in Riverbank (and the surrounding secondary market) expected to shop frequently is based on data presented by the City of Riverbank, using data collected from the existing Crossroads retail center. The data on current Crossroads center shoppers found that about 28 percent of all sales generated by stores at the Crossroads center come from shoppers who reside in Riverbank. The analysis applied the 28 percent factor against expected sales generated by the proposed CWSP to obtain a discrete amount of future sales attributable to Riverbank households alone. This estimate was further compared to the future sales amount against total retail sales generated by all households in Riverbank. Thus, if 28 percent of Crossroad's sales come from

Riverbank, this then means that 41 percent of Riverbank households will shop regularly at the new center.

In addition to Riverbank-related sales data, the City of Riverbankalso shared that apporximately 39 percent of sales come from residents of Modesto, particularly the northern, northeast, and eastern portions of Modesto. In addition, about 33 percent of shoppers come from an expansive area that includes Escalon to the north, Oakdale and East Oakdale to the northeast, and the areas east of Riverbank that stretch from the far east foothills of Stanislaus County to the unincorporated areas in Tuolumne County up to (and including) the Town of Sonora. The analysis determined that if 39 percent of store sales come from shoppers in northern, northeast, and eastern Modesto, this means almost 13 percent of the households in these parts of Modesto will shop regularly at Crossroads West. Similarly, the 33 percent Escalon-to-Oakdale-to-Sonora sales figure means that 17 percent of households in this broad area would expect to shop regularly at Crossroads West. ADE applied the 13 percent and 17 percent secondary market household spending capture rates to the cities and these capture rates correspond to, as well as to the block groups immediately surrounding these cities and towns that are also in the secondary markets.

In total, there are currently 116,950 households in the secondary market area, with an average household income of $71,267. Of the total of 116,950 households in the secondary market area, we estimate that 14,179 households will shop regularly at the Crossroads project (capture rate of 12 percent), with an average household income of over $73,100.

**Table 1-3: Secondary Market Area Households by Income Group:
Total Households and Weighted Household Capture**

	Secondary Market Area					
	All Households			Households After Market Share\Gravity Model		
	All	Home-owners	Renters	All	Home-owners	Renters
Total:	116,950	69,515	47,435	14,179	9,275	4,905
Less than $10,000	6,952	2,195	4,757	723	312	411
$10,000 to $14,999	7,396	2,302	5,094	695	220	474
$15,000 to $19,999	6,344	2,304	4,041	681	292	389
$20,000 to $24,999	5,631	2,485	3,146	636	315	321
$25,000 to $29,999	6,477	2,693	3,784	747	342	405
$30,000 to $34,999	6,635	2,733	3,902	792	345	447
$35,000 to $39,999	5,692	2,966	2,726	671	386	285
$40,000 to $44,999	6,007	3,130	2,877	656	375	281
$45,000 to $49,999	4,814	2,527	2,286	518	291	227
$50,000 to $59,999	9,758	6,358	3,400	1,156	790	366
$60,000 to $74,999	11,463	7,508	3,956	1,410	992	417
$75,000 to $99,999	14,356	10,568	3,788	1,925	1,551	373
$100,000 to $124,999	8,786	7,290	1,496	1,359	1,141	218
$125,000 to $149,999	6,058	5,022	1,036	777	641	137
$150,000 to $199,999	5,691	5,089	602	804	719	86
$200,000 or more	4,891	4,345	546	629	563	66
Avg. Income	$71,267	$87,563	$47,387	$73,110	$87,191	$46,482

Source: ADE, Inc.; data from US Census ACS 5-Year 2011-2015 Sample

Altogether, the equivalent of 17,067 households make up the primary and secondary market support for the CWSP retail commercial uses (Table 1-4). The retail spending equivalent of 14,179 households will come from the secondary market.

**Table 1-4: Estimated Household Spending Support for CWSP:
Primary and Secondary Markets Under Existing Conditions**

	Households After Gravity Model		
	All	**Primary**	**Secondary**
Total	17,067	2,888	14,179
Less than $10,000	816	93	723
$10,000 to $14,999	820	125	695
$15,000 to $19,999	816	135	681
$20,000 to $24,999	776	140	636
$25,000 to $29,999	859	112	747
$30,000 to $34,999	972	180	792
$35,000 to $39,999	851	180	671
$40,000 to $44,999	763	107	656
$45,000 to $49,999	655	137	518
$50,000 to $59,999	1,390	234	1,156
$60,000 to $74,999	1,827	417	1,410
$75,000 to $99,999	2,319	394	1,925
$100,000 to $124,999	1,692	333	1,359
$125,000 to $149,999	876	99	777
$150,000 to $199,999	936	132	804
$200,000 or more	699	70	629

Source: ADE, Inc.; data from US Census ACS 5-Year Sample 2011-2015

HOUSEHOLD SPENDING

Household spending represents the demand side of the retail leakage calculation. The local retail demand for Riverbank includes household spending from Riverbank households, as well as secondary market area shoppers coming to Riverbank from surrounding communities such as Oakdale, Escalon, and north Modesto.

The household spending calculation comes from ADE's retail demand model, which estimates merchandise line spending as a percentage of household income, and distributes the merchandise line spending into demand by store type for over 50 different retail categories. Because the potential retail tenants for the CWSP retail commercial uses are unknown, the retail demand was estimated at a more aggregated level. In addition, household spending patterns vary by income group, so the retail demand model calculates the household spending separately for each of the income groups shown in Tables 1-2 to 1-4, and then combines them into a composite household spending total for Riverbank and for the secondary market area.

Because the level of household spending support included in the demand calculation is weighted using a gravity model, the analysis accounts for a portion of retail spending by Riverbank households leaving the city. For Riverbank, the model calculates that about 41 percent of the household retail spending can be captured by Riverbank stores.

The results from retail demand model indicate- that Riverbank households can support approximately $54.9 million of overall retail spending in Riverbank. In addition, Riverbank can attract approximately $271.9 million in spending from outside of the city. Combined, the total household retail demand for Riverbank is about $326.8 million (Table 1-5).

The largest retail spending categories are general merchandise, grocery stores, restaurants, vehicle dealerships, and gasoline service stations.

Table 1-5: Riverbank and Secondary Market Household Retail Spending Under Existing Conditions

Retail Group	Riverbank Weighted Household Spending	Secondary Area Weighted Household Spending	Total Market Area Household Spending
Total (Existing Conditions)	**$54,923,744**	**$271,888,562**	**$326,812,306**
Apparel Store Group	**$2,753,869**	**$13,798,693**	**$16,552,562**
General Merchandise Group	**$9,885,276**	**$48,763,835**	**$58,649,111**
Specialty Retail Group	**$2,651,361**	**$13,102,409**	**$15,753,771**
Food, Eating, and Drinking Group	**$19,262,534**	**$94,851,104**	**$114,113,638**
Grocery and Specialty Food Stores	$8,898,384	$43,657,783	$52,556,168
Liquor Stores	$416,764	$2,063,190	$2,479,954
Restaurants and Other Eating Places	$9,947,386	$49,130,130	$59,077,516
Building Materials and Homefurnishings Group	**$3,712,247**	**$18,351,678**	**$22,063,925**
Furniture, Appliances, Electronics	$1,951,513	$9,668,029	$11,619,542
Building Materials and Home Improvement	$1,760,734	$8,683,648	$10,444,382
Automotive Group	**$16,658,456**	**$83,020,844**	**$99,679,300**
New and Used Vehicles	$9,734,459	$48,843,002	$58,577,461
Gasoline Service Stations	$6,591,033	$32,536,308	$39,127,342
Auto Parts and Accessories	$332,963	$1,641,534	$1,974,497

Source: ADE, Inc.; retail demand model derived from US Economic Census and Bureau of Labor Statistics Consumer Expenditure Survey data.
Notes: Household spending totals are weighted based on gravity modeling, and represent household demand targeted to Riverbank.

RETAIL SALES AND LEAKAGE

Based on sales tax data provided by the City of Riverbank, retail stores and restaurants in Riverbank generated total sales of about $307.8 million in 2016. This includes an estimate of both taxable and non-taxable items. Compared to the supportable market area household demand of $326.8 million, this means that Riverbank retailers have a net leakage of only about $19.0 million in unmet demand (Table 1-6). On balance, Riverbank's retail market is performing about as expected, with significant capture from surrounding communities. The actual leakage varies by individual store type. However, the overall net leakage serves as the best indicator for potential economic impacts at this time, given the lack of details about the tenant mix for future Crossroads West commercial uses.

Table 1-6: Riverbank Market Area Net Retail Leakage

Total Market Area Household Spending	Riverbank Retail Sales	Net Leakage
$326,812,306	$307,789,323	$19,022,984

Source: ADE, Inc.; data from California Board of Equalization and MuniServices; retail demand model derived from US Economic Census and Bureau of Labor Statistics Consumer Expenditure Survey data.
Notes: Household spending totals are weighted based on gravity modeling, and represent household demand targeted to Riverbank. Riverbank retail sales are derived from taxable sales data, and include an adjustment to account for nontaxable item sales.

As shown in Table 1-7, the largest sources of retail sales in Riverbank are general merchandise, grocery stores, restaurants, building materials/home improvement, and gas stations. Even though Riverbank's retail supply and demand are roughly balanced when looking at the overall market, there are numerous imbalances between supply and demand when drilling down into the categorical details.

Table 1-7: Riverbank Market Area Sales Leakage and Net Capture of Regional Sales by Retail Group

Retail Group	Total Market Area Household Spending	Riverbank Retail Sales	Sales Leakages	Net Capture of Regional Sales
Apparel Store Group	**$16,552,562**	**$5,020,076**	**$11,532,486**	**$0**
General Merchandise Group	**$58,649,111**	**$67,484,897**	**$0**	**$8,835,786**
Specialty Retail Group	**$15,753,771**	**$22,581,193**	**$0**	**$6,827,422**
Food, Eating, and Drinking Group	**$114,113,638**	**$90,432,514**	**$23,681,123**	**$0**
Grocery and Specialty Food Stores	$52,556,168	$48,325,977	$4,230,190	$0
Liquor Stores	$2,479,954	$3,140,479	$0	$660,525
Restaurants and Other Eating Places	$59,077,516	$38,966,058	$20,111,458	$0
Building Materials and Homefurnishings Group	**$22,063,925**	**$80,221,506**	**$0**	**$58,157,581**
Furniture, Appliances, Electronics	$11,619,542	$22,016,802	$0	$10,397,259
Building Materials and Home Improvement	$10,444,382	$58,204,704	$0	$47,760,322
Automotive Group	**$99,679,300**	**$42,049,136**	**$57,630,163**	**$0**
New and Used Vehicles	$58,577,461	$4,696,070	$53,881,391	$0
Gasoline Service Stations	$39,127,342	$29,892,110	$9,235,231	$0
Auto Parts and Accessories	$1,974,497	$7,460,956	$0	$5,486,459

Source: ADE, Inc.; data from California Board of Equalization and MuniServices; retail demand model derived from US Economic Census and Bureau of Labor Statistics Consumer Expenditure Survey data.
Notes: Household spending totals are weighted based on gravity modeling, and represent household demand targeted to Riverbank. Riverbank retail sales are derived from taxable sales data, and include an adjustment to account for nontaxable item sales.

NET CAPTURE OF REGIONAL SALES

Riverbank has a net capture of regional sales in some key retail categories. This results when the store sales exceed the expected household demand. The largest net capture in Riverbank occurred in the building materials and home furnishings store group. With furniture/appliance/electronics stores and home improvement and building materials stores, the store sales are often skewed higher in areas with a lot of new residential development activity, which would describe Riverbank. In addition, the large net capture of regional sales in the building materials and home improvement category could reflect high demand from business-to-business and contractor sales, which is also typical in areas with high rates of residential development growth.

Other store categories with net capture of regional sales include general merchandise stores, specialty retail, liquor stores, and auto parts stores.

In general, Riverbank's largest existing sources of retail leakage come from restaurants, vehicle dealerships and apparel stores. In particular, Riverbank's lack of new car dealerships is by far the city's largest source of unmet consumer demand. Apparel stores also have a comparatively large unmet demand, when comparing those sales with the unmet demand as a ratio.

The unmet demand for restaurants in Riverbank could reflect higher capture rates in the surrounding communities by local restaurants operating out in the secondary market area. It could also reflect restaurant segments that are not currently served in Riverbank.

1.3 PROJECTED MARKET AREA GROWTH

The Crossroads West Specific Plan area would require a number of years to develop and would occur within a context of growth within the market area. Based on Regional Housing Needs Allocations (RHNAs) for each jurisdiction as well as the Stanislaus County Council of Governments long term projections, the market area is anticipated to grow by about 10,000 dwelling units between 2014 and 2023 (Table 1-8) and by more than 40,000 units by 2050 (Table 1-9). For perspective, the CWSP retail center would require household demand equivalent to 5,700-9,000 units, although as discussed above, the project would capture only a share of household spending so the actual growth in the market area would need to be higher to achieve total market support for the project.

Table 1-8: 2014-2023 RHNA Housing Projections by Jurisdiction

Jurisdiction	Housing Units
Riverbank	1,280
Modesto	6,361
Escalon	425
Oakdale	1,247
Waterford	525
Hughson	218
Total	10,056

Source: City of Riverbank Housing Element

The upper part of Table 1-9 shows the actual housing unit projections promulgated by StanCOG, which use a 2015 base year. The second section of the table shows the incremental growth from 2017, based on DOF housing counts for each jurisdiction. The third section of the table separates Riverbank (the primary market area) from the other jurisdictions in the secondary market area. Riverbank is projected to increase nearly 4,000 housing units by 2050, of which the CWSP units themselves would comprise 38 to 72 percent.

The secondary market area is projected to add more than 38,000 new dwelling units by 2050. The last section of Table 1-9 shows the annualized growth rates that would be achieved based on the StanCOG projections. The first period covers 2015 to 2020, consistent with the upper part of the table. For all jurisdictions, the growth rates are higher in the early years and decline gradually farther out in time. (These projections assume a steady economy, while in reality economic fluctuations can be expected).

Over the entire projection period, however, the rates average about one percent per year. In general, household retail spending would also grow at this rate, although an increasing share of that spending may occur on the internet.

Table 1-9: Housing Unit Projections

Jurisdiction	2015	2020	2025	2030	2035	2040	2045	2050
Housing Unit Projections								
Riverbank	7,421	8,028	8,633	9,228	9,759	10,290	10,782	11,265
Modesto	76,542	81,252	85,954	90,566	94,693	98,811	102,629	106,380
Escalon	2,697	2,808	2,910	3,009	3,126	3,263	3,392	3,529
Oakdale	8,203	8,856	9,507	10,146	10,717	11,287	11,816	12,336
East Oakdale	1,158	1,218	1,277	1,336	1,388	1,440	1,489	1,536
Waterford	2,748	2,946	3,144	3,337	3,511	3,684	3,844	4,002
Hughson	2,348	2,555	2,762	2,965	3,147	3,328	3,497	3,662
Incremental Growth from 2017								
	2017	**2020**	**2025**	**2030**	**2035**	**2040**	**2045**	**2050**
Riverbank	7,287	741	605	595	531	531	492	483
Modesto	75,816	5,436	4,702	4,612	4,127	4,118	3,818	3,751
Escalon	2,646	162	102	99	117	137	129	137
Oakdale	8,185	671	651	639	571	570	529	520
East Oakdale	1,182	36	59	59	52	52	49	47
Waterford	2,666	280	198	193	174	173	160	158
Hughson	2,398	157	207	203	182	181	169	165
Cumulative Growth by Market Area Segment								
	2017	**2020**	**2025**	**2030**	**2035**	**2040**	**2045**	**2050**
Primary Market Area		741	1,346	1,941	2,472	3,003	3,495	3,978
Secondary Market Area		6,742	12,661	18,466	23,689	28,920	33,774	38,552
Cumulative Total Market		7,483	14,007	20,407	26,161	31,923	37,269	42,530
Projected Annual Growth Rates								
		2020	**2025**	**2030**	**2035**	**2040**	**2045**	**2050**
Riverbank		1.6%	1.5%	1.3%	1.1%	1.1%	0.9%	0.9%
Modesto		1.2%	1.1%	1.1%	0.9%	0.9%	0.8%	0.7%
Escalon		0.8%	0.7%	0.7%	0.8%	0.9%	0.8%	0.8%
Oakdale		1.5%	1.4%	1.3%	1.1%	1.0%	0.9%	0.9%
East Oakdale		1.0%	1.0%	0.9%	0.8%	0.7%	0.7%	0.6%
Waterford		1.4%	1.3%	1.2%	1.0%	1.0%	0.9%	0.8%
Hughson		1.7%	1.6%	1.4%	1.2%	1.1%	1.0%	0.9%
Average for Secondary		1.2%	1.2%	1.1%	0.9%	0.9%	0.8%	0.7%

Source: ADE, based on StanCOG 2016 Growth Forecast, downloaded from:
http://www.stancog.org/pdf/2016ForecastSummary.pdf

2.   MARKET ABSORPTION OF THE PROJECT

2.1 PROJECT BUILDOUT

Depending on the size of the retail center built at Crossroads West, total sales could equal between $127.7 million and $190.4 million. As discussed in the previous chapter, Riverbank currently experiences about $19.0 million in net sales leakage, which could potentially be captured by the proposed project, leaving a range of $108.7 million to $171.4 million to be attracted from existing retail centers in the market area or from future growth. In the Riverbank market area, each household is estimated to spend $19,000 per year on retail goods. At this rate, the project would need future growth of approximately 5,700 to 9,000 new housing units to avoid attracting sales from existing customers of other retail centers in the market area.

Table 2-1: Market Growth Needed to Support Crossroads West Retail Uses

	Low	High
Projected Sales	$127,710,000	$190,410,000
Retail Leakage	$19,022,984	$19,022,984
Market Growth Needed	$108,687,016	$171,387,016
Equivalent Housing Units	5,700	9,000

Source: ADE, Inc.; data from California Board of Equalization and MuniServices; retail demand model derived from US Economic Census and Bureau of Labor Statistics Consumer Expenditure Survey data.
Notes: Household spending totals are weighted based on gravity modeling, and represent household demand targeted to Riverbank. Riverbank retail sales are derived from taxable sales data, and include an adjustment to account for nontaxable item sales.

The potential for the project to create urban decay impacts on other retail centers in the market area will depend on when it is built and at what size. As growth occurs in the market area over time, it will tend to lessen the potential for impacts from the Crossroads West project. In the discussion below, we analyze the potential sales capture of the project from existing retail centers under various growth scenarios including today's market, the market at two stages in the development of the onsite residential units in the proposed project. In addition, because the actual retail store tenants that would comprise the CWSP retail commercial uses are not known, the impact analysis looks only at the market as a whole, rather than examining potential impacts by individual store type.

2.2 POTENTIAL IMPACTS UNDER EXISTING CONDITIONS

The relatively small unmet retail demand for the Riverbank market area means that if the proposed development is built in today's market, about $108.7 million to $171.4 million in sales could be attracted away from existing retail centers (Table 2-1). While the retail center is not proposed to develop immediately, it is important to evaluate the potential impacts as a baseline for the analysis.

GEOGRAPHIC DISTRIBUTION OF IMPACTS UNDER EXISTING CONDITIONS

The gravity model for distribution of impacts and survey data of Crossroads retail shoppers found that about 28.0 percent of the potential impacts from future Crossroads West commercial uses would affect Riverbank retail stores. Assuming no mitigations, the worst case scenario would range from $30.4 million to $48.0 million in sales reductions for Riverbank businesses (Table 2-2). The gravity model and survey data also found that about 36.6 percent of the impacts would affect stores located in Modesto, resulting in sales reductions of $42.1 million to $66.4 million. The geographic distribution of these potential impacts by shopping area within Modesto is shown in Table 2-2. A more detailed description of these shopping areas can be found in the Urban Decay discussion in Chapter 3.

Table 2-2: Geographic Distribution of Potential Economic Impacts by Crossroads West Retail Uses Under Existing Conditions

Community and Shopping Area	Distance (Miles)	Impact Distribution	Existing Conditions Impacts (Low)	Existing Conditions Impacts (High)
Riverbank	2.1	28.0%	$30,432,365	$47,988,365
Escalon	6.0	7.9%	$8,619,961	$13,592,695
Oakdale	6.4	24.2%	$26,354,962	$41,558,766
East Oakdale	7.8	0.8%	$829,945	$1,308,728
Modesto: McHenry	7.5	5.1%	$5,525,866	$8,713,661
Modesto: Super Walmart/Target	5.9	18.9%	$20,491,775	$32,313,189
Modesto: Downtown	9.5	1.7%	$1,817,814	$2,866,485
Modesto: Hwy. 99 Costco-Target-Vintage	10.4	11.0%	$11,904,328	$18,771,767
Modesto: Hwy. 99 Walmart/Kohls	13.9	2.2%	$2,396,824	$3,779,517
Waterford	13.4	0.2%	$176,203	$277,852
Hughson	14.1	0.1%	$75,126	$118,465

Source: ADE, Inc.; data from California Board of Equalization and MuniServices; retail demand model derived from US Economic Census and Bureau of Labor Statistics Consumer Expenditure Survey data.
Notes: Household spending totals are weighted based on gravity modeling, and represent household demand targeted to Riverbank. Economic impacts are distributed geographically using gravity modeling, based on patterns of retail employment by block group. Sales data for the Empire and Valley Home CDPs was not available, so those impacts were excluded. The impact distribution for those CDPs was less than 0.1%.

The potential for store closures resulting from these economic impacts would depend on the extent to which these economic effects are dispersed across store categories and individual businesses, and whether they are geographically concentrated. The impacts in Riverbank under existing conditions would result in reductions of existing sales of between 9.9 and 15.6 percent (Table 2-3). Household growth in Riverbank over the next 10 to 12 years is projected to average 1.3 percent to 1.6 percent per year, meaning that it would take 7 to 12 years for existing retail businesses to absorb this magnitude of sales loss.

In neighboring Oakdale, the business impacts would potentially result in existing sales reductions of 7.1 to 11.2 percent. With household growth projected to average 1.3 to 1.5 percent per year, this means that it would take between five and nine years for businesses to absorb the potential sales losses.

By comparison, the economic impacts in the other surrounding communities result in a lower sales reduction as a percentage of existing retail sales. While the projected economic impact on Modesto businesses is higher than the impact on Riverbank businesses, the impact as a percentage of sales is considerably lower because the shopping areas in Modesto generate much higher sales and the possible retail sales locations are distributed throughout the community.[4] Modesto is projected to grow slightly more than one percent per year over the next 15 years. The Super Walmart/Target center would require about five to eight years to recoups sales losses from the proposed project if it were built immediately. The McHenry retail corridor would require three to five years to fully recover, while other parts of the secondary market area would only need a couple years to gain back lost sales. As noted before, any actual business impacts will greatly depend on the tenant mix and scale of development for the Crossroads West retail commercial uses.

Table 2-3: Geographic Distribution of Potential Economic Impacts as Percentage of Existing Retail Sales under Existing Conditions

Community and Shopping Area	Existing Sales*	Impact as Percent of Sales (Low)	Impact as Percent of Sales (High)
Riverbank	$307,789,323	9.9%	15.6%
Escalon	$127,314,000	6.8%	10.7%
Oakdale	$371,321,000	7.1%	11.2%
East Oakdale	$27,837,000	3.0%	4.7%
Modesto: McHenry	$184,530,000	3.0%	4.7%
Modesto: Super Walmart/Target	$404,076,000	5.1%	8.0%
Modesto: Downtown	$126,068,000	1.4%	2.3%
Modesto: Hwy. 99 Costco-Target-Vintage	$791,948,000	1.5%	2.4%
Modesto: Hwy. 99 Walmart/Kohls	$334,221,000	0.7%	1.1%
Waterford	$70,527,000	0.2%	0.4%
Hughson	$157,815,000	0.0%	0.1%

Source: ADE, Inc.; data from California Board of Equalization and MuniServices, and Salesgenie/InfoUSA; retail demand model derived from US Economic Census and Bureau of Labor Statistics Consumer Expenditure Survey data.
Notes: The existing retail sales for Riverbank are based on sales tax data provided by the City. For other communities, the existing sales are based on data from Salesgenie/InfoUSA.

2.3 POTENTIAL IMPACTS UNDER SPECIFIC PLAN BUILDOUT

The existing conditions scenario represents a worst case scenario that estimates the impacts of the CWSP retail commercial uses without any of the additional residential growth proposed in the CWSP. This section estimates the retail impacts that would potentially occur with full build out of the CWSP residential uses.

ADDITIONAL HOUSEHOLD DEMAND AT CWSP BUILDOUT

Build out of the CWSP land uses would include between 1,514 and 2,852 new dwelling units. Table 2-4 shows that the weighted new market demand that these dwelling units would potentially bring into Riverbank represents the equivalent of 619 to 1,169 new households. The analysis assumes that the

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[4] The retail sales data for communities outside of Riverbank comes from Salesgenie/InfoUSA. This database uses credit reports to develop sales information. It should be noted that the sales data for many of these businesses are broad estimates.

average household income and the income distribution of the new households would be equivalent to the existing conditions.

Table 2-4: Estimated Household Spending Support for CWSP: Riverbank under CWSP Build out

	Additional Riverbank Households After CWSP Build out (Weighted by Gravity Model)	
	Low Growth	High Growth
Total	**619**	**1,169**
Less than $10,000	20	38
$10,000 to $14,999	27	51
$15,000 to $19,999	29	55
$20,000 to $24,999	30	57
$25,000 to $29,999	24	45
$30,000 to $34,999	38	73
$35,000 to $39,999	38	73
$40,000 to $44,999	23	43
$45,000 to $49,999	29	55
$50,000 to $59,999	50	95
$60,000 to $74,999	89	169
$75,000 to $99,999	84	160
$100,000 to $124,999	72	135
$125,000 to $149,999	22	40
$150,000 to $199,999	28	53
$200,000 or more	15	28

Source: ADE, Inc.; data from US Census ACS 5-Year Sample 2011-2015
Notes: Growth based on Crossroads West Specific Plan housing uses at build out. Household counts weighted based on gravity modeling.

POTENTIAL SALES ATTRACTION FROM EXISTING RETAIL CENTERS

Because the CWSP includes variations in both the number of housing units and the designated retail commercial square footage, the potential impacts under build out, separate scenarios were calculated for low impacts and high impacts. The low impact scenario assumes the highest number of built housing units (2,852 units), and the lowest retail commercial square footage (387,000 SF). The high impact scenario assumes the low number of built housing units (1,514 units), and the highest retail commercial square footage (577,000 SF).

At build out, the potential retail demand from Riverbank households could increase from $54.9 million to between $67.1 million and $77.2 million (Table 2-5). This has the effect of increasing the retail leakage to $30.8 million to $41.3 million. The leakage represents unmet demand. Assuming projected sales of $127.7 million to $190.4 million, the potential sales attraction away from existing stores ranges from $86.4 million to $159.6 million at CWSP build out. This build out scenario does not assume any change to the secondary market area housing spending. However, as discussed below, growth in the market area will reduce the potential for business disruption by the project.

As with the existing conditions scenario, the actual retail impacts will depend on the composition of the retail tenants, as well as how the retail commercial project phasing coincides with housing

development within the CWSP area, as well as additional units within the secondary market area. This is discussed further below in the section addressing impacts over time.

Table 2-5: Potential Sales Capture from Existing Retail Centers by Crossroads West Retail Uses Under CWSP Build out (Low and High Impact Scenarios)

	Low Impact	High Impact
Projected Sales	$127,710,000	$190,410,000
Retail Leakage	$41,302,651	$30,836,327
Potential Impacts	$86,407,349	$159,573,673

Source: ADE, Inc.; data from California Board of Equalization and MuniServices; retail demand model derived from US Economic Census and Bureau of Labor Statistics Consumer Expenditure Survey data.
Notes: Household spending totals are weighted based on gravity modeling, and represent household demand targeted to Riverbank. Riverbank retail sales are derived from taxable sales data, and include an adjustment to account for nontaxable item sales.

GEOGRAPHIC DISTRIBUTION OF IMPACTS UNDER CWSP BUILDOUT

Using the same distribution of impact assumptions, the future Crossroads West commercial uses would potentially result in $24.2 million to $44.7 million in sales reductions for Riverbank businesses (Table 2-6). The gravity model also found that impacts on stores located in Modesto would result in sales reductions of $33.5 million to $61.9 million. The geographic distribution of these potential impacts by shopping area within Modesto and other surrounding areas is shown in Table 2-6.

Table 2-6: Geographic Distribution of Potential Economic Impacts by Crossroads West Retail Uses Under CWSP Build Out (Low and High Impact Scenarios)

Community and Shopping Area	Distance (Miles)	Impact Distribution	CWSP Build out Impacts (Low)	CWSP Build out Impacts (High)
Riverbank	2.1	28.0%	$24,194,058	$44,680,628
Escalon	6.0	7.9%	$6,852,962	$12,655,779
Oakdale	6.4	24.2%	$20,952,479	$38,694,208
East Oakdale	7.8	0.8%	$659,815	$1,218,520
Modesto: McHenry	7.5	5.1%	$4,393,123	$8,113,046
Modesto: Super Walmart/Target	5.9	18.9%	$16,291,182	$30,085,910
Modesto: Downtown	9.5	1.7%	$1,445,182	$2,668,905
Modesto: Hwy. 99 Costco-Target-Vintage	10.4	11.0%	$9,464,069	$17,477,869
Modesto: Hwy. 99 Walmart/Kohls	13.9	2.2%	$1,905,501	$3,519,003
Waterford	13.4	0.2%	$140,083	$258,701
Hughson	14.1	0.1%	$59,726	$110,299

Source: ADE, Inc.; data from California Board of Equalization and MuniServices; retail demand model derived from US Economic Census and Bureau of Labor Statistics Consumer Expenditure Survey data.
Notes: Household spending totals are weighted based on gravity modeling, and represent household demand targeted to Riverbank. Economic impacts are distributed geographically using gravity modeling, based on patterns of retail employment by block group. Sales data for the Empire and Valley Home CDPs was not available, so those impacts were excluded. The impact distribution for those CDPs was less than 0.1%.

The additional housing under the CWSP build out scenario reduces the potential for store closures resulting from these economic impacts. As with the existing conditions scenario, actual store closures would depend how sales impacts are distributed by store categories and individual businesses. The impacts in Riverbank under build out conditions would potentially reduce existing sales by 7.9 and 14.5 percent (Table 2-7). The reductions in potential impacts also considerably reduce the effect on Modesto businesses as a percentage of sales.

Table 2-7: Geographic Distribution of Potential Economic Impacts as Percentage of Existing Retail Sales under CWSP Buildout

Community and Shopping Area	Existing Sales*	Impact as Percent of Sales (Low Impact)	Impact as Percent of Sales (High Impact)
Riverbank	$307,789,323	7.9%	14.5%
Escalon	$127,314,000	5.4%	9.9%
Oakdale	$371,321,000	5.6%	10.4%
East Oakdale	$27,837,000	2.4%	4.4%
Modesto: McHenry	$184,530,000	2.4%	4.4%
Modesto: Super Walmart/Target	$404,076,000	4.0%	7.4%
Modesto: Downtown	$126,068,000	1.1%	2.1%
Modesto: Hwy. 99 Costco-Target-Vintage	$791,948,000	1.2%	2.2%
Modesto: Hwy. 99 Walmart/Kohls	$334,221,000	0.6%	1.1%
Waterford	$70,527,000	0.2%	0.4%
Hughson	$157,815,000	0.0%	0.1%

Source: ADE, Inc.; data from California Board of Equalization and MuniServices, and Salesgenie/InfoUSA; retail demand model derived from US Economic Census and Bureau of Labor Statistics Consumer Expenditure Survey data.
Notes: The existing retail sales for Riverbank are based on sales tax data provided by the City. For other communities, the existing sales are based on data from Salesgenie/InfoUSA.

IMPACTS OVER TIME

Based on the growth rates shown in Table 1-9 above, the lower level of residential development in the CWSP (1,514 DU) would take ten years to develop. If the project represents all the residential development in the City during that time, then the potential loss of sales for existing Riverbank businesses would be $24.2 million, as shown in Table 2-6. However, if other housing development also occurs, then the impacts would be lessened due to the additional growth in household retail demand.

During this time, the secondary market area household spending would also have grown by more than 10 percent, more than enough to eliminate competitive impacts from the proposed project retail center.

For the higher level of residential development in the CWSP (2,852 DU), the absorption period is likely to be at least 22 years, based on Table 1-9. In this scenario, if the larger potential retail center in the project (577,000 sq. ft.) is phased in over a five to ten year period after residential development has commenced, then growth in the secondary market area would be able to maintain pace with market absorption and reduce the likelihood of significant sales losses from the CWSP center.

2.4 FUTURE GROWTH UNDER GENERAL PLAN BUILDOUT

Based on the regional growth projections, the maximum retail center at Crossroads West could be fully absorbed within a decade in most of the competing retail shopping areas in and around Riverbank. While existing Riverbank stores in the interim show the highest levels of potential sales reductions, it should be noted that the configuration of the Crossroads West retail center will likely follow the existing Crossroads retail center as a regionally oriented center. Aside from the existing Crossroads retail center, there are no other commercial centers in Riverbank with a similar configuration.

There is sufficient development potential in Riverbank to fully support the project at full build out of the General Plan, which would include development of about 10,700 additional housing units, including those in the CWSP. If residential development in Riverbank proceeds faster than is currently projected by StanCOG, then it is more likely the City could sustain full build out of the maximum retail center of CWSP without incurring impacts to existing retail centers, which are measurable.

3. URBAN DECAY POTENTIAL

This section of the report examines the way in which the proposed project impacts various store groups and their respective retail establishments that are operating in Riverbank and the surrounding areas. The analysis examines the general impacts that could result in competing retail commercial areas. The urban decay potential at this juncture cannot be defined down to specific store categories, because the retail commercial portion of the CWSP remains broadly defined and without a proposed timeline.

In the present context, issues of building vacancies, loss of necessary commercial facilities, and high turnover rates are all potential results of the kind of commercial transitions and changes in retail mix that the proposed project could create. Urban decay generally results when these types of economic conditions contribute to the physical deterioration of buildings and districts, and create a causal chain effect that leads to a general decline in an area. The following discussion evaluates the potential for the proposed project to create urban decay based on the market analysis in the previous sections of the report and site visit observations of competing retail centers in Riverbank and the surrounding communities.

3.1 BACKGROUND

Under CEQA, an EIR should only consider direct and indirect physical effects of projects. Section 15064(d) of the CEQA Guidelines states that, "In evaluating the significance of the environmental effect of a project, the Lead Agency shall consider direct physical changes in the environment which is caused by and immediately related to the project." Section 15064(d)(3) further states that, "An indirect physical impact is to be considered only if that change is a reasonably foreseeable impact which may be caused by the project. A change which is speculative or unlikely to occur is not reasonably foreseeable." In addition, CEQA requires that a determination that a project may have a significant environmental effect must be based on substantial evidence (CEQA Guidelines §15064(f)).

On the secondary socioeconomic effects of projects, Section 15131(a) of the CEQA Guidelines indicates that, "Economic and social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes." In other words, economic and social changes are not, in themselves, considered under CEQA to be significant effects on the environment.

Since only physical effects are to be considered under CEQA, economic and social changes resulting from a project may be considered if they in turn produce changes in the physical environment. To fully satisfy the requirements of an EIR, an economic analysis must start with the economic impacts. The analysis would then follow the causal chain to assess the likelihood of new retail space causing

long-term vacancies in existing retail space and ultimately leading to urban decay and physical deterioration of existing retail centers and nodes.

3.2 URBAN DECAL POTENTIAL: COMPETITIVE SHOPPING AREAS IN REGIONAL MARKET TRADE AREA

This section summarizes the state of shopping areas that would potentially compete with the Crossroads West retail commercial centers. These competing centers comprised the type of retail that is typically the object of urban decay analyses (i.e., foot-traffic generating retail that tends to anchor shopping areas, such as supermarkets and general merchandise stores). The analysis examined seven areas in Modesto, two in Riverbank, and areas in Oakdale and Escalon; and for each of them, summarized the potential for urban decay.

MODESTO: MCHENRY AVENUE (BETWEEN PELANDALE AND BRIGGSMORE)

Within the McHenry Avenue shopping area between Pelandale and Briggsmore Avenues, there are two sub-areas with foot-traffic generating uses. The sub-area on McHenry Avenue between Pelandale and Standiford includes a Super Walmart, a shopping center called the Promenade Shopping Center, Target, and another shopping center anchored by Marshalls. All of these stores and shopping centers are in fairly good shape, in terms of their respective built environments. A video of the Promenade center (http://bit.ly/2hKcjma) illustrates the breadth of parking, easy access to and from the street, pleasant visual-appeal of these shopping centers and stores, all of which contribute to a shopping sub-area that appears to be performing well.

To underscore how well, the Promenade still has a Barnes & Noble book store, many of which across North America have shuttered in recent years. A prominent corner space (1,980 square feet) is vacant at the Promenade. But, given how well-maintained this center is and the presence of traffic-generating uses such as Barnes & Noble, Ross, and Starbucks, there is no reason to believe that the space will remain vacant indefinitely.

Figure 3-1: McHenry Ave. (Pelandale to Briggsmore)

Across from the Promenade Shopping Center is the Target Store on the west side of McHenry and a shopping center called Marshalls Plaza (68,000 sq. ft.), on the southeast side of the McHenry/Standiford intersection. The built environment of this center is also well-maintained: the Marshalls Plaza has plenty of parking, easy-access to either Standiford or McHenry, much foliage and mini-green areas in the parking lot, and is visually-pleasing in terms of design and paint. Currently there are five vacancies at the Plaza for a total of 9,000 available square feet.

Figure 3-2: Marshall Plaza (photo: Premax brochure)

The second sub-area within the McHenry Avenue from Pelandale to Briggsmore stretches from Woodrow Avenue to Briggsmore Avenue. Northgate Village is the first shopping center if one is driving southward on McHenry toward Briggsmore. While this center has five vacancies (7,400 square feet), this shopping center primarily has local-serving uses, such as dental and other health offices, beauty salons, and banks. Realtors tout its proximity to Target, Ross, Marshalls and Barnes and Noble to the immediate north, and Hobby Lobby to the south. There is also a Footlocker and a Play It Again Sam across the street from Hobby Lobby.

The shopping center south of Hobby Lobby at 2401 McHenry Avenue will soon have one major vacancy. The 30,800 square foot Furniture Outlet will soon close, leaving the 66,200 square foot center almost half empty. Other occupants include Party City, Goodwill, a 99 Cent Store, and Dollar Tree. While 2401 McHenry appears to be occupied by lower-rent uses, the sub-area itself is not lower-rent, as the next block to the south of 2401 McHenry is a well-maintained shopping center anchored by Safeway and Burlington Coat Factory, as indicated in a video (http://bit.ly/2wvtL1l). Like other centers on McHenry, 2401 McHenry has ample parking and a built environment that is relatively

well-maintained, meaning that even as it weathers its current vacancies and struggles with lower-rent uses, center owners have still been able to maintain the facilities.

Figure 3-3: McHenry (Briggsmore to Needham)

Based on the site visit and data gathered from local realtors, we believe that impacts stemming from the Crossroads project in Riverbank will not trigger urban decay in the part of McHenry Avenue shopping area between Pelandale and Standiford. The sub-area between Pelandale and Standiford has centers that are well-designed and well-maintained, and are on highly-traversed roads, a point noted by commercial realtors in seeking to fill current vacancies on McHenry as retailers desire proximity to high-traffic streets. In addition, the second sub-area stretching from Standiford and McHenry to Briggsmore and McHenry similarly will not experience urban decay as a result of impacts stemming from the Crossroads project. While Furniture Outlet will soon close resulting in a shopping center becoming half vacant, its proximity to McHenry and foot-traffic generating stores such as Safeway, Target and Hobby Lobby suggest this should be re-tenanted within a reasonable time-frame, given the projected growth in the area discussed in the previously chapter. Indeed, commercial realtors tout the availability of the Furniture Outlet site as a "rare" large-foot print site of interest to prospective tenants, meaning sites like this do not occur frequently on McHenry given the positive attributes of this street to retailers. Since Crossroads West retail commercial uses do not yet have a construction timeline, this project cannot be deemed to have caused the closure of Furniture Outlet and directly contributed to the triggering (if any) of urban decay there.

MODESTO: MCHENRY AVENUE (BETWEEN BRIGGSMORE AND NEEDHAM)

The primary commercial spots in the McHenry Avenue corridor stretching from Briggsmore to Needham are at the southeast and southwest corners of the McHenry and Briggsmore intersection. In a good sign for the commercial prospects of the area, Sprouts Farmers Market operates in McHenry Village near McHenry and Briggsmore. Sprouts typically locates in areas with relatively high disposable income. See's Candy also operates at the same center as Sprouts. Beyond the Briggsmore-McHenry intersection travelling south on McHenry, a number of thrift and antique stores operate in this portion of McHenry Avenue, as do a number of auto-related uses (see green squares in Figure 3-3). Traffic-generating uses in the area include Walgreen, CVS, Rite Aid and Sprouts. Other than these stores, this part of McHenry Avenue does not have as much foot-traffic generating uses as the portion of McHenry between Pelandale and Briggsmore.

We believe that impacts stemming from the Crossroads project will not trigger urban decay in this portion of McHenry Avenue. Anchored by Sprouts Farmers Market, McHenry Village is a well-planned shopping center whose built environment is relatively well-maintained and aesthetically-pleasing, and includes shaded walkways that encourage a pedestrian-friendly shopping environment. Further underscoring the well-planned, pedestrian-friendly nature of the center, almost all storefronts at McHenry Village have an abundance of clear windows that invite shoppers to come into the store, a particularly attractive feature in this setting. McHenry Village is a unique shopping center in that judging by the stores operating there (Sprouts, See's Candies, two quality jewelry stores, a number of boutique apparel stores, etc.) it is an upscale center filled mostly with non-chain tenants and restaurants. The upscale, local-serving niche this shopping center occupies has already proven successful in allowing it to compete well against the regional shopping centers along Highway 99, and Target and Super Wal-Mart at the northern end of McHenry.

There is also a Rite Aid anchored shopping center (Village West) on the southwest corner of Briggsmore and McHenry, as well as a stand-alone Walgreen's on McHenry that is three-quarters of a mile south of the Briggsmore-McHenry intersection. Given the abundance of pharmacies in close proximity to each other (CVS, Rite Aid, and Walgreen's), this area would have a stronger market concentration than a pharmacy at the proposed Crossroads project in Riverbank and would be unlikely to experience significant competitive impacts. If one of the pharmacies did close, the strength of market growth in this area would likely lead to a relatively quick re-tenanting, which would avoid triggering urban decay.

Aside from traffic-generating uses at McHenry Village and Village West (as well as the stand-alone Walgreen's project), which are typically the object of urban decay analyses, most other retailers along this portion of McHenry are either auto-related retailers or shops selling used\antique goods. These retailers do not fit the criteria established in the *Gilroy* urban decay case that "upheld an urban decay analysis which focused solely on 'major buildings' and 'major stores' in 'commercial areas.'"[5]

DOWNTOWN MODESTO

While downtown Modesto has approximately 114 establishments, there is only one major, traffic-generating retail use, a Smart & Final store, with the remainder of the business as restaurants, drinking places, and specialty retail establishments. Given the breadth of grocery and general merchandise stores already on McHenry Avenue and the distance from Downtown to the Crossroads West site, it is unlikely that a new food store/general merchandise store at the proposed shopping center in Riverbank will cause the shuttering of the Smart & Final in downtown Modesto. In any case, urban decay would only occur if the building could not be released within a reasonable time. With the strong draw for arts and cultural activities Downtown with the Gallo Center and the State Theater, as well as the projected future growth in Modesto, this is unlikely. As for the rest of the downtown area, almost all other retailers are not 'major retailers' within the meaning of the Gilroy court decision that established types of retail that need to be analyzed with respect to urban decay studies.

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[5](Citizens for a Better Delano vs. City of Delano \ City of McFarland vs. City of Delano (California Superior Court, Kern County, 2010), page 4

MODESTO (99 CORRIDOR): COSTCO, TARGET, BEST BUY, AND VINTAGE FAIR MALL

Retailers along Highway 99 from Pelandale Avenue to Standiford Avenue draw customers from throughout Stanislaus County, as well as from San Joaquin County (Figure 3-4). This stretch of Highway 99 boasts major retailers, from large-format general merchandise stores such as Costco and Target, to specialty retail shops such as Pier 1 Imports and Cost Plus. Electronics stores such as Apple and Best Buy also attract shoppers from throughout the region, as do quality retail establishment such as Macy's and Coach. The retail centers along Highway 99 are also are highly visible and easily accessible from Highway 99.

Figure 3-4: 99 Corridor: Costco, Best Buy, Target, and Vintage Faire Mall
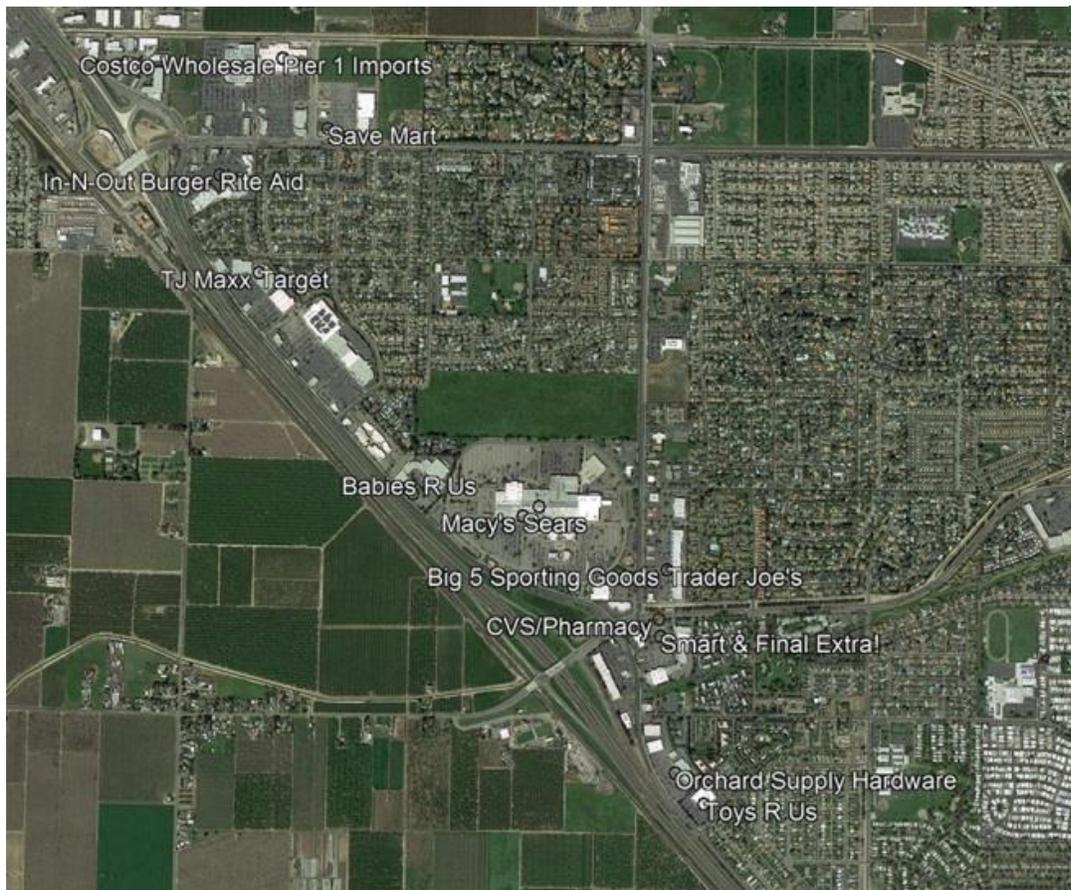
Retailers in this corridor are known for their differentiated goods, which vary significantly from one retailer to the next (e.g., branded items), are new to consumers (e.g., electronic goods), or specialty items (e.g., fine handbags or jewelry).[6] Retailers here also sell comparison and common good items. While this corridor is known as Stanislaus County's center of differentiated goods, retailers here are not immune from the larger changes underway in the retail. While Macy's and Sears' national

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[6] Hodson, Perrigo, and Hardman, "2017 Retail Trends" (Price Waterhouse and Coopers)(http://bit.ly/2vkgFoU)

headquarters did not place their Modesto stores on their respective closure lists, the possibility is still worrisome. Aside from these broader challenges, the built environments of shopping areas along this corridor are well-maintained, and have amenities needed to compete over the long haul (parking and proximity and access to major roads).

The stretch of retail along Highway 99 between Pelandale and Standiford provides a diversity of retail stores and products and in a well-designed, aesthetically-pleasing built environment that shield it from the potential for urban due to impacts stemming from the Crossroads project. Decisions made in corporate headquarters of chains such as Sears, Macy's, and JC Penney in response to changing ways consumers make their retail purchases will have a greater role in whether these stores remain at this part of Highway 99 than impacts stemming from Crossroads West many miles away in Riverbank. Thus, it is not expectedthat the Crossroads project in Riverbank will cause stores along this route to close, and in such a way as to result in urban decay.

MODESTO (99 CORRIDOR): KOHLS, WALMART, GROCERY OUTLET

The shops in this area tend to sell comparison and common good items, unlike the wealth of differentiated products sold at retailers on the other part of the Modesto 99 retail corridor. Walmart and Kohls at the Central Valley Plaza, and Grocery Outlet and Sears Outlet at the Briggsmore Plaza, are key retailers here. Stores here are relatively well-maintained, and have ample parking and easy access to the freeway (see Figures 3-5 to 3-8). However, Town and Country Square behind the Starbucks suggests that while re-tenanting has occurred, a few of the new tenants at this location are atypical for a shopping center close to a highway. As indicated in Figure 3-9, Town and Country has a shooting range, a bible store, and an auto insurance store (other than AAA), indicating that owners have had to reach beyond conventional retail businesses to fill their spaces. It is important to note that Town and Country Square is not programmed for traffic generating retail uses that are typically the object of urban decay analyses. Owners of the Briggsmore Plaza also went outside of conventional retail businesses to finding tenants to occupy prime spots, with a gym occupying a space vacated due to the demise of Sports Authority. Another shopping center in this area - Sills Plaza - is anchored by Food Maxx, Office Depot, and CVS. In addition, Central Valley Plaza, Briggsmore Plaza and Town and Country shopping centers are highly visible and easily accessible from Highway 99.

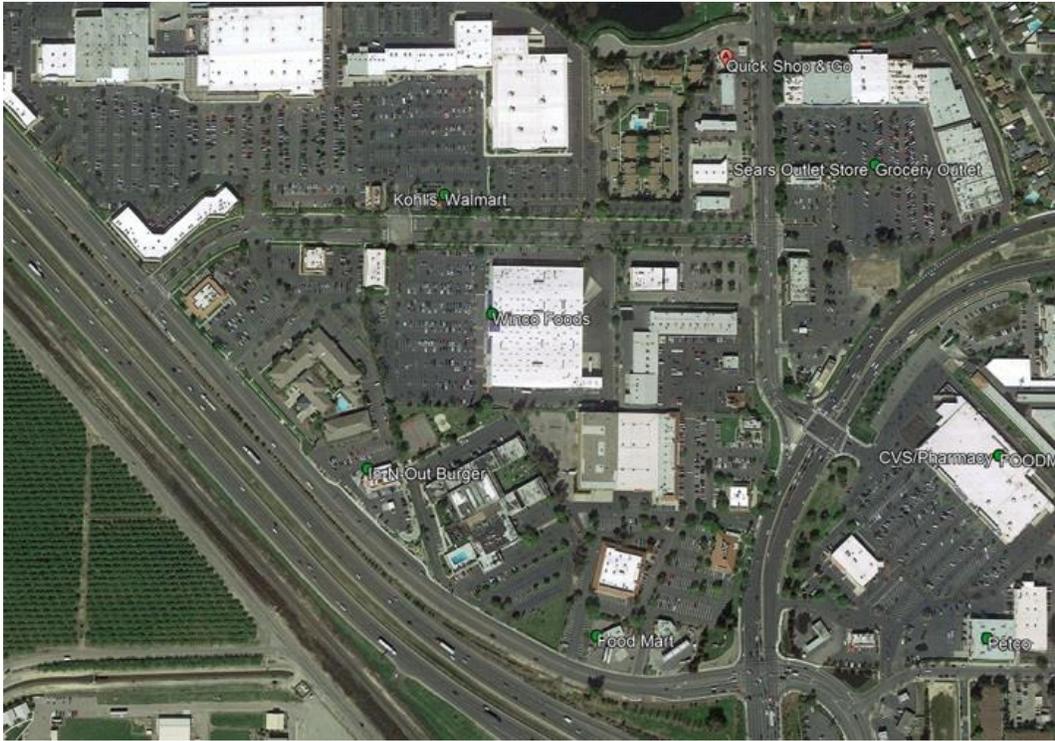**Figure 3-5: Modesto Along 99 Between Standiford and Briggsmore**

Figure 3-6: Walmart at Central Valley Plaza

Figure 3-7: Grocery Outlet at Briggsmore Plaza

Figure 3-8: Sears Outlet at Briggsmore Plaza

Figure 3-9: Tenants at Town and Country Square

While the Crossroads West retail commercial uses might impact Central Valley Plaza, Briggsmore Plaza, Town and Country, and Sills Plaza, the review of the built environment (pleasant design, well-maintained buildings, plentiful parking, easy access to roads with high traffic volume) and recent re-tenanting activity indicates that impacts stemming from Crossroads will not result in urban decay.

MODESTO: OAKDALE ROAD CORRIDOR SOUTH TO BRIGGSMORE

Approximately two miles to the east of the McHenry and Briggsmore intersection is a shopping area near the intersection of Oakdale and Briggsmore. The area has two small shopping centers, called the Oakmoor Plaza and Orchard Plaza. Foot-traffic generating uses such as Big Lots anchor Oakmoor, while Orchard Supply Hardware and Office Max anchor Orchard Plaza. Directly across the street from each other, both centers are relatively new and exhibit very well-maintained built environments, in terms of new and well-designed retail buildings, ample parking, and ample foliage to provide shading and minimize the drab visual aesthetic resulting from concrete surface parking. The centers are easily accessible from Oakdale Road. Other than Big Lots, Orchard Supply Hardware, and Office Max, the other retail shops are primarily local-serving, personal service types of uses, such as athletic club, hair and nail salons, and insurance and banking, suggesting that these centers exist to serve local needs of households in the relatively new R-1 and R-2 zoned neighborhoods immediately surrounding these centers. Orchard Plaza's Office Max is also well-positioned to provide for the office supply needs of both Sutter Central Valley Hospital and Sutter Health Memorial Medical Center, as well as the number of physicians and dental offices surrounding these medical centers.

In addition to fulfilling demand stemming from nearby residents and professional offices, the broader retail market (in terms of supply of competing stores) surrounding Oakmoor Plaza and Orchard Plaza has further truncated the market areas for these two centers. The existing Crossroads Shopping Center in Riverbank already has a Staples and Home Depot. Similarly, the wide array of general merchandise stores on McHenry Avenue (Super Wal-Mart, Target, Dollar Tree, 99 Cents), as well as the Target and Kohl's in Riverbank, have truncated the market area for Oakmoor's Big Lots. In other words, while uses such as Big Lots, Orchard Supply Hardware and Office Max occupy a community-serving niche, their market areas extend away from the proposed project rather than toward it. Unlike the other shopping areas examined in the urban decay analysis, the Oakdale and Briggsmore area is unlikely to compete with the proposed project and therefore would not be subject to urban decay impacts from the proposed project.

MODESTO: COFFEE ROAD SOUTH TO FLOYD

There is a shopping area in Modesto at the intersection of Coffee Road and Floyd. However, as this center does not have foot-traffic generating uses typically associated with urban decay analyses (general merchandise stores, building materials and hardware stores, supermarkets), it is not included in the list of shopping areas to be analyzed for purposes of the urban decay analysis.

RIVERBANK: OAKDALE & PATTERSON ROADS AND DOWNTOWN

There is a relatively new shopping center at the Oakdale and Patterson Road intersection that is anchored by CVS and Dollar Tree (Figure 3-10). This center is well-maintained, and includes plentiful parking. Across the street is another shopping center anchored by O'Brien's supermarket. While this center is well-maintained and has plentiful parking, tenants occupying this center include a lot of non-retail uses such as nail salons, mail drop services, and travel agents.

Figure 3-10: Key Traffic-Generating Retail At Various Shopping Areas

Riverbank's historic downtown has attracted significant place-making public investment in the form of mini pocket-parks, and street and sidewalk beautification projects. However, the presence of the vacant and boarded-up Del Rio Restaurant signals that much work still needs to be done (Figures 3-11 and 3-12). The retail area between Third and Fourth streets along Atchison Avenue also shows signs of blight. Yet, two key traffic-generating grocery stores (Fair Deal Market and Garcia's Market) in the downtown still operate in spite of competition from the Target store at Claribel and Oakdale and the CVS store at Oakdale and Patterson. Outward signs indicate that they are performing relatively well. These stores' primary customers are Spanish-speaking. While the periphery of the downtown shopping area along Atchison shows some blighted conditions, the linked video shows that downtown core is relatively well-maintained, has plentiful parking, and has an aesthetically-pleasing built-environment as a result of public and private investments (http://bit.ly/2vnzlnM).

Whether the proposed Crossroads project will lead to closing of key stores, such as O'Briens market, that in turn, results in urban decay is speculative. The relatively new CVS/Dollar Tree project indicates that private investors still see the location at Oakdale and Patterson as a place to invest. The recent addition of an IMAX movie theater to the nearby Galaxy movie theater further underscores the resilience of this part of Riverbank in the face of competition, starting with the existing Crossroads at Riverbank development. The continued success of Garcia's Market and the Fair Deal Market illustrates that Riverbank's historic downtown is somewhat shielded by major changes in Riverbank's retail landscape, although Atchison Road shows that signs of decline that pre-date the CWSP, as well as the Crossroads at Riverbank center. However, it is important to note that the sales absorption analysis in the previous chapter indicates that sales losses by existing retail centers in Riverbank could range from7.9 to 14.5 percent (Table 2-7 above), even after the residential portion of the CWSP is built. While Riverbank is projected to grow at more than one percent per year over the next ten to fifteen years, it would nonetheless require a number of years for Riverbank retailers to absorb this potential sales loss from the proposed project unless substantial additional residential development occurs. It is not likely that existing retailers in downtown would be affected but it may impact the ability of the City to stimulate new retail development downtown. In addition, the newer retail at Oakdale and Patterson Roads may be affected, depending on the mix of retail at CWSP.

Figure 3-11: Del Rio Building (Atchison and 3rd Street)

Figure 3-12: Vacant, Boarded Up Building (Atchison and 4th)

RIVERBANK: OAKDALE AND CLARIBEL ROADS (CROSSROADS AT RIVERBANK CENTER)

The Crossroads at Riverbank shopping center at the northeast corner of Oakdale and Claribel roads in Riverbank was built in 2005 and recently expanded. The center has several businesses that draw customers from beyond Riverbank. The center is anchored by Target, and includes other major retailers such as Best Buy, Kohls and Home Depot. A Savemart supermarket is also at this site. The breadth of retail and other amenities, and the newness of the built environment, suggest that Crossroads West is in a position to compete with the Crossroads at Riverbank center. While the CWSP retail commercial uses may impact Crossroads at Riverbank center, it is not expected that the project will cause stores to close, or lead to prolonged vacancies in such a way that results in urban decay.

OAKDALE: DOWNTOWN

Oakdale's major shopping area is on Route 108 (F Street) in the direction of the Oakdale-East Oakdale border, at Route 108 and Maag Street. There are three shopping centers there. One is anchored by Raley's and includes a Big 5 Sporting Goods store. Another is anchored by Kmart and includes a Dollar Tree. The third shopping center is anchored by Savemart and includes a Rite Aid. While the Kmart remains open, over the past year this national chain has been shuttering stores across the United States. The Raley's center opened in 2008, and the center with Savemart and Rite Aid has recently completed substantial renovation. There is also a relatively new Dollar General Store on the western portion of Route 108 that, while a stand-alone pad, is contiguous to a strip shopping center called Randy Plaza. Randy Plaza shows signs of aging, is tenanted largely with local-serving uses, and, given its mid-block location, is somewhat difficult for shoppers to leave to get onto the heavily-trafficked Route 108.

Decisions made in corporate headquarters of chains such as Sears/K-Mart in response to changing ways consumers make their retail purchases will have a greater role in whether this store remains in Oakdale than impacts stemming from a project such as the Crossroads West many miles away in Riverbank, though most decision-makers certainly will be influenced by store-by-store performance. While the Oakdale K-Mart location was not included in the latest round of store closures by Sears Holdings (which owns K-Mart), the parent company has shrunk from over 3,000 stores in 2006 to around 1,000 stores in 2017, with nearly 100 stores slated for closure in 2017.[7]

The Crossroads project is estimated to have a sales impact in Oakdale of between 5.6 and 10.4 percent, while the Oakdale household retail demand is growing at 1.5 percent per year. So these sales losses, if they occur, would be recouped in about four to seven years.. At this point it is speculative to say that Crossroads project will cause the K-Mart to shutter (and shutter in a fashion that leads to urban decay) in the near future, largely due to the close proximity of two successful general merchandise stores (Dollar General and Dollar Tree) in direct competition with K-Mart. The Dollar General down the street from K-Mart is a relatively new store, and its opening is part of a larger

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[7] Holland, John; "Sears and Kmart Announce More Store Closures as Parent Company Continues to Struggle"; Modesto Bee, January 4, 2018; http://www.modbee.com/latest-news/article193101174.html.

corporate strategy at grabbing additional share of both value-oriented and brand-conscious shopper.[89] The K-Mart location already competes with the Target store in the existing Crossroads shopping center.

In addition, while the project might impact Savemart or Raley's, it is worth noting that whether these stores survive might have less to do with the Crossroads project and more with the fact that Savemart and Raley's are directly across the street from each other. Given the recent substantial investment made in Savemart and the relative newness of Raley's, owners of these projects more than likely believe that Oakdale and the immediate surroundings is big enough for both of the stores.

Figure 3-13: Oakdale Retail Area (F Street and Maag Street)
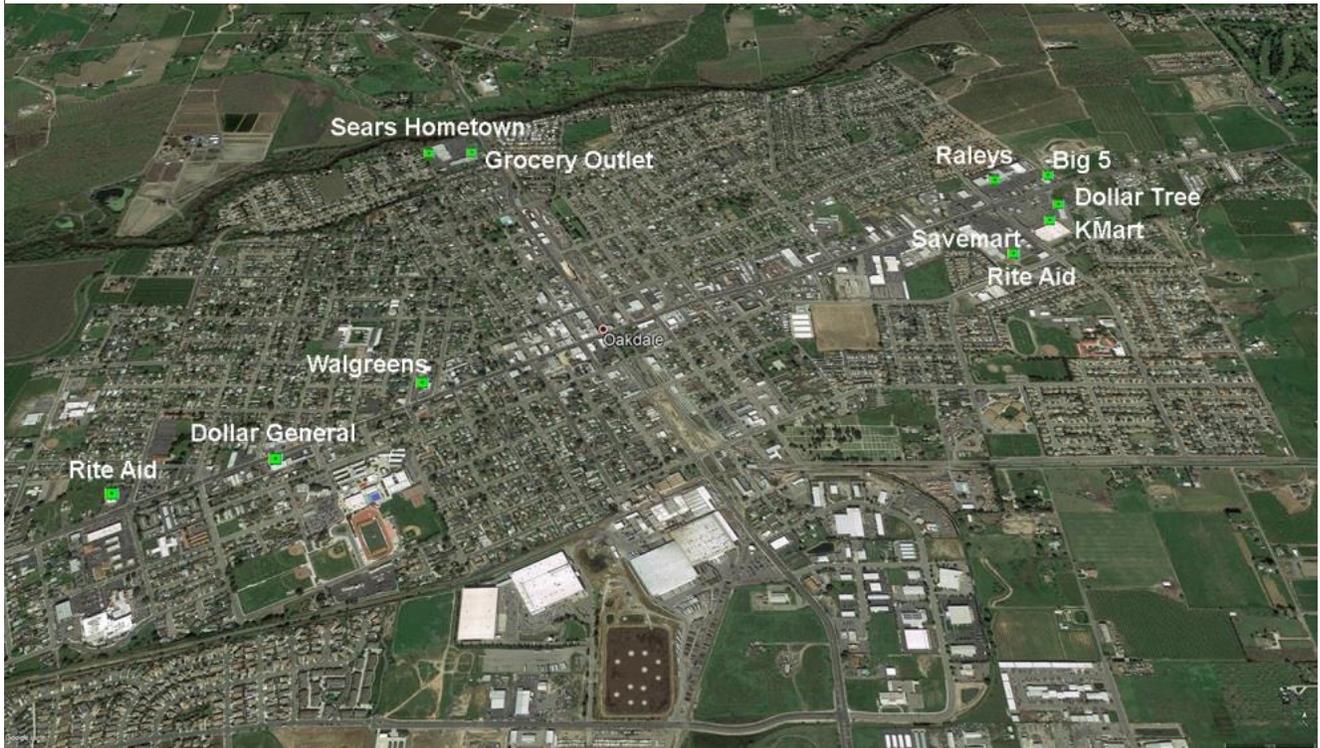
ESCALON: DOWNTOWN AND OUTSKIRTS

The City of Escalon has a limited number of stores that are typically the object of urban decay analyses (Figure 3-14). There is a relatively new, well-designed shopping center anchored by a grocery store called Mar-Val's Main Street Market (Figure 3-15). Immediately next to this small shopping center is a stand-alone Dollar General. One block away from Dollar General is another discount retailer (Dollar Tree), which is also on a stand-alone pad. On the outskirts of the downtown, there is a Rite Aid. All stores and centers are in generally good shape identified in Figure 3-14, in

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[8] Bhattarai, Abha; "More People Are Buying Food at Dollar General, Helping Boost the Company's Sales"; Wall Street Journal; December 7, 2017; http://archive.is/TFxuI.
[9] Nassauer, Sarah; "How Dollar General Became Rural America's Store Choice"; Wall Street Journal; December 8, 2017; http://archive.is/PvglL.

terms of their respective built environment (building design, building upkeep, availability of parking). While stores might be impacted by the proposed Crossroads project, there is no reason to believe impacts will lead to any closures, or closures of a nature that result in urban decay.

Figure 3-14: Foot-Traffic Generating Retail in Escalon

Figure 3-15: Mar Val Main Street Market (Escalon, CA)

3.3 URBAN DECAY CONCLUSIONS

Based on the economic impact analysis and site visits to competing retail commercial sites, there appears to be no evidence that implementation of the Crossroads West Specific Plan will result in urban decay in retail centers outside of Riverbank, and only a limited possibility of such impacts within Riverbank if the phasing of the project is properly managed. This conclusion is based on the general descriptions of the land uses as they currently exist, prior to development proposals and more finalized distribution of businesses and square footage. As the project phasing, proposed business uses, and site configurations become more concrete, a more targeted assessment of business impacts can be developed.

The analysis found that at the current general level, without other mitigations, full build out of the CWSP land uses will result in sales reductions for other businesses. However, even if the sales reductions result in business closures, vacancies do not by themselves result in urban decay. The key issue is whether the market area is dynamic and growing sufficiently to stimulate demand for the vacant spaces from other businesses.

In addition, the site visits found that competing business centers in the surrounding communities are generally in good physical condition, and have visibility and access that is superior in many cases to the Crossroads site itself, which lessens the likelihood of prolonged vacancies leading to urban decay conditions.

It should also be noted that if the Crossroads West retail center attracts a similar mix of businesses and building configurations as the existing Crossroads center, it will likely function as a regionally-oriented retail center, which would limit the impacts on more locally-focused retail centers. The existing Crossroads center draws its customers from across a large geographic area, with the largest proportion of customers coming from the northern and eastern parts of Modesto. Those areas also happened to have the largest concentration of direct regional competition. Because the projected impacts represent a comparatively small percentage of sales, the likelihood of urban decay from regionally-oriented competition from Riverbank is low.

METHODOLOGY

RETAIL DEMAND MODEL

In order to estimate household demand, the analysis used ADE's proprietary retail demand model. This model estimates spending based on the differential demand characteristics by merchandise line for households of different groupings. The retail model makes merchandise line calculations for over 40 different groupings and 9 different income groupings. The merchandise line calculations are then distributed into demand for over 50 different retail store categories.

On average, the relationship between household income and retail spending is not linear. Using the income group differentiation ensures that the model does not underestimate retail demand by lower income households, or overestimate retail demand by higher income households.

The retail demand model uses the Bureau of Labor Statistics Consumer Expenditure Survey and the IPUMS raw datasets from 2015 to derive the merchandise line spending by income group. The distributions by retail store type are derived from the 2012 Economic Census Source of Sales data for retail trade and for hospitality sectors.

HOUSEHOLD CAPTURE RATES BASED ON SALES INFORMATION PROVIDED BY PROJECT PROPONENT

While the market shed from which the proposed Crossroads project will draw customers covers a wide area, in calculating household demand from the trade area's secondary market, ADE does not assume that 100 hundred percent of primary and\or secondary market household spending will occur in Riverbank. Household demand from the primary and secondary markets is based on a combination of information. First, the City of Riverbank shared with ADE information on where shoppers at the current Crossroads Shopping Center tend to come from. Shoppers typically come from three general areas: 1) Riverbank; 2) North Modesto/Northeast Modesto/East Modesto; and 3) Escalon/Oakdale/East Oakdale/unincorporated eastern Stanislaus County foothills (including areas around and including the Town of Sonora in Tuolumne County). According to the City of Riverbank, approxiamtely 28 percent of sales generated at the current Crossroads Shopping Center come from Riverbank, with about 39 percent coming from the Modesto area. Thirty-three percent of sales come from the Escalon /Oakdale/Foothills area.

ADE converted the sales information by location into spending capture rates by location. Thus, if 28 percent of Crossroads' sales come from Riverbank, this then means that 41 percent of Riverbank households shop regularly at this center. Similarly, if 39 percent of sales come from Modesto, particularly North Modesto/Northeast Modesto/East Modesto, then this means that almost 13 percent of the households in these parts of Modesto shop regularly at Crossroads. The 33 percent Escalon/Oakdale/Foothills sales distribution means that 17 percent of households in this broad area shop regularly at Crossroads. ADE applied these household spending capture rates to the cities and towns these capture rates correspond to, as well as to the block groups immediately surrounding

these cities and towns. For areas outside of the three defined areas, ADE applies household spending capture rates based on the Huff Gravity Model, which is described below.

$30,988,565
$159,421,435

HOUSEHOLD CAPTURE RATES BASED ON HUFF GRAVITY MODEL

Gravity-models are accepted in the planning field, not just in retail analysis but also traffic modeling and planning. "The Huff model is widely regarded as the industry standard for determining the probability of a retail location to attract customers."[10]   The following summary of the Huff Model is found on the website of the geographic information systems (GIS) data and tool vendor, ESRI:

- The Huff Model is a spatial interaction model that calculates gravity-based probabilities of consumers at each origin location patronizing each store in the store dataset. From these probabilities, sales potential can be calculated for each origin location based on disposable income, population, or other variables. The probability values at each origin location can optionally be used to generate probability surfaces and market areas for each store in the study area.

- ... To account for differences in the attractiveness of a store relative to other stores, a measure of store utility such as sales volume, number of products in inventory, square footage of sales floor, store parcel size, or gross leasable area is used in conjunction with the distance measure. Potential store locations can also be input into the model to determine new sales potential as well as the probabilities of consumers patronizing the new store instead of other stores.[11]

The Gravity Model "rests on the assumption that group behavior is predictable on the basis of mathematical probability because the idiosyncrasies of any one individual or small group tend to be canceled out."[12]   The underlying principle is analogous to Isaac Newton's theory of gravitational attraction in that "interaction between two areas of population is a direct function of the size of the masses and an inverse function of the distance between them"[13] Below is one expression of the Huff Gravity Model equation.

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[10] Anderson, Volker and Phillips "Converse's Breaking-Point Model Revised" (02/19/09)
(http://www.aabri.com/manuscripts/09219.pdf)

[11]https://www.arcgis.com/home/item.html?id=f4769668fc3f486a992955ce55caca18

[12]Huff, D.L. (1962) "A Probabilistic Analysis of Consumer Spatial Behavior" in W.S. Decker (Ed.), Emerging concepts in Marketing, Chicago: American Marketing Association.

[13] Mason, J. Barry (1975), "Retail Market Area Shape and Structure: Problems and Prospects", in Schlinger, Mary Jane (Ed.), Advances in Consumer Research Volume 02,: Association for Consumer Research, pages 173 – 186.

$$\text{probability formula} = P_{1,2,3,n} = \frac{(a_{weight1}/d^2_{1})}{\text{divided by}}$$
$$\text{sum}(a_{weight1,2,3,n}/d^2_{1,2,3,n})$$

$a_{weight1} =$ aggregate retail jobs of place "a_1"	$d_1 =$ distance between place "a_1" and Rvrbnk
$a_{weight2} =$ aggregate retail jobs of place "a_2"	$d_2 =$ distance between place "a_2" and Rvrbnk
$a_{weight3} =$ aggregate retail jobs of place "a_3"	$d_3 =$ distance between place "a_3" and Rvrbnk
$a_{weightn} =$ aggregate retail jobs of place "a_n"	$d_n =$ distance between place "a_n" and Rvrbnk

Thus, the Huff Gravity Model is a tool by which analysts can answer the following question in a quantitative manner: what is the probability that a household in, say Waterford, will shop at the Crossroads project given the amount of retail at the proposed site and the distance of that site from Waterford, and further given other shopping areas within the regional market trade area and the distance of each of these other areas to Waterford? All things being equal, households will tend to shop at stores and shopping areas that are closest to them, unless shopping areas further away provide a selection of stores and goods not available nearby. Thus, ADE performed over 40 separate gravity model calculations for various cities, unincorporated areas and census block groups in the regional trade area, with each individual calculation determining the likelihood that a household will shop in 16 different shopping areas, including the Crossroads West.

Figure A-1: Percentage of Households In Regional Market Trade Area Who Will Shop Regularly At Crossroads
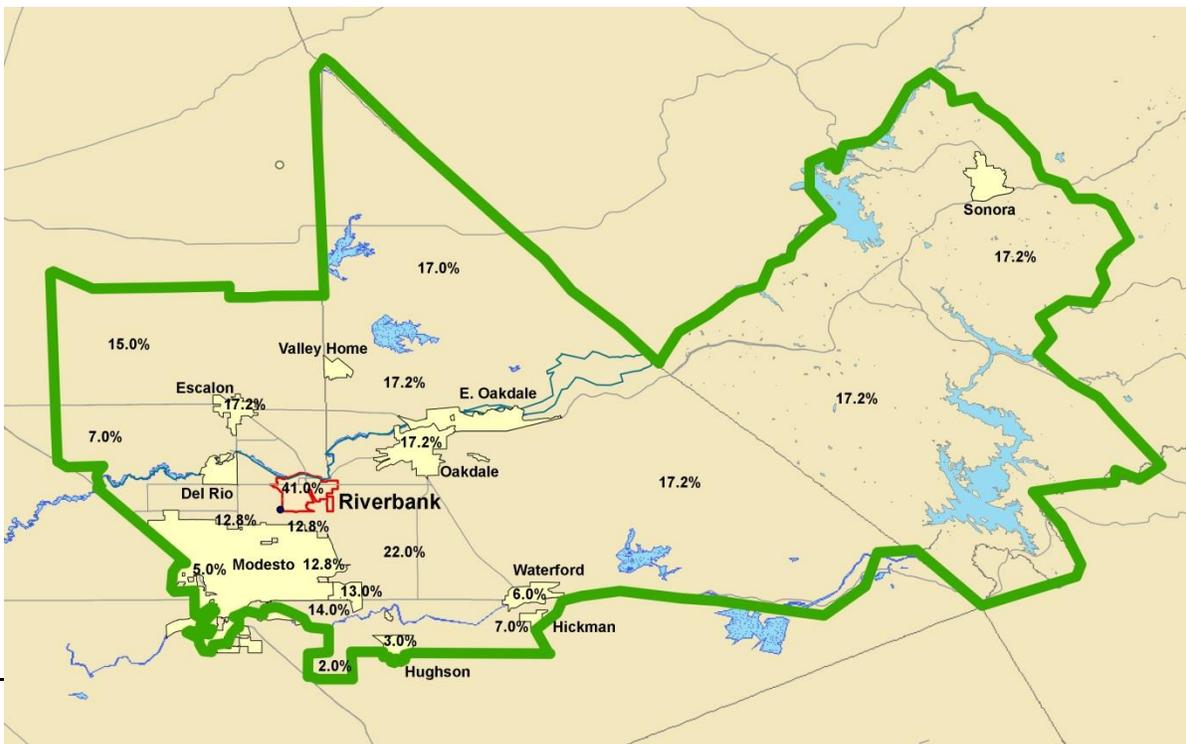
DISTRIBUTION OF IMPACTS BASED ON CROSSROADS MARKET SHARE AND HUFF GRAVITY MODEL

In addition to using the gravity model and actual Crossroads Shopping Center market share data to determine from where households will come, we used these inputs to distribute impacts stemming from the project. According to the data provided by the City of Riverbank, approximately 28 percent of sales generated by the current Crossroads project come from Riverbank. Thus, if the future project generates $86.4 million in sales, then it is estimated that 28 percent of would also come from Riverbank, resulting in an aggregate impact to current Riverbank stores of an estimated $24.2 million, since $24.2 million is 28 percent of $86.4 million.

In the case of impacts to Modesto retailers, the information provided by the City of Riverbank had already indicated that 39 percent of current sales come from North Modesto, Northeast Modesto, and East Modesto. As there are a number of Modesto-based shopping centers that will compete with the future Crossroads project for household spending from North Modesto, Northeast Modesto, and east Modesto households, we distributed the 39 percent impact across the various Modesto shopping centers by combining the overall 39 percent impact figure provided by the City of Riverbank with the shopping center-specific gravity model impact calculation.

For example, using the City of Riverbank estimate of 39 percent rate, if the future shopping center at a minimum generates $86.4 million in annual sales, then this means $33.5 million will comes from households in North Modesto, Northeast Modesto, and East Modesto. In turn, the $33.5 million represents an impact to current Modesto shopping centers, an amount that is then distributed across the various Modesto shopping centers via the gravity model percentages. As a result, of the $33.5 million in Modesto impacts, we estimate that the largest impact at $16.3 million would come at the expense of the Modesto shopping district on McHenry anchored by Super Walmart and Target (sales of $404,076,000) or a 3 to 4 percent impact within this shopping center. The Walmart/Kohls project on Highway 99 would be subject to an estimated $1.9 million in impacts and a 0.6 percent impact on current sales estimates of $334,331,000, which is less than the impact to the Super Walmart-Target district on McHenry because it is further away from the future Crossroads project.