


METROPOLITAN BAKERSFIELD TRANSIT CENTER STUDY

Final Report

August 2015

Kern Council of Governments

HDR CDM Smith

Achnowledgements

TBD

Table of Contents

List of Figures

List of Tables

List of Appendices

1

EXECUTIVE SUMMARY

BACKGROUND AND PURPOSE

The purpose of the Metropolitan Bakersfield Transit Center Study is to identify locations for transit centers in Bakersfield due to anticipated growth and higher demand for transit service as well to identify the need for connectivity of various existing and future transit service connections. As a means to update the Transit Center Plans from the 2009 Metropolitan Bakersfield Transit System Long-Range Plan (LRTP), Kern Council of Governments (Kern COG) is partnering with Golden Empire Transit (GET), the City of Bakersfield, the County of Kern, and various stakeholders to determine how best to meet the public transit needs of the residents of Metropolitan Bakersfield over the next twenty years.

To ensure consistency throughout Metropolitan Bakersfield and Kern County, this study includes a thorough review of existing planning documents at the City and Regional level of how they relate to the Bakersfield Transit Center Study. In addition, the Study also addresses transit related policies and strategies of the Sustainable Community Strategy and Regional Transportation Plan (SCS/RTP).

PUBLIC OUTREACH

As part of the planning process the study included various outreach efforts for community support and understanding of the project. These efforts included two public workshops intended to engage stakeholders and members of the public with open discussions of transit centers, their role within Metropolitan Bakersfield, and potential site locations. In addition, online surveys were conducted to further capture the community's input and feedback.

SUITABLE TRANSIT CENTER SITE LOCATIONS

Through a culmination of existing planning documents, existing demographics, projected population and employment, and public input, a total of eight primary and five secondary site locations were identified.

Proposed transit center locations were based on several factors including the plans and goals outlined in the Bakersfield Transit System Long-Range Plan (LRTP), the City of Bakersfield Bicycle Transportation Plan, California High Speed Rail Station Area Plans, existing and planned transit routes, land uses and demographics of surrounding potential sites, first and last mile connections, potential for TOD, population and employment growth trends, and public outreach. These sites (shown in **Figure 1**) include:

- Bakersfield College;
- Downtown Transit Center;
- Southwest Transit Center;
- California State University Bakersfield;
- Amtrak Station;
- California High Speed Rail Station (with HSR);
- Niles and Mt. Vernon Avenue;
- Panama Lane and Hwy 99;
- Mt. Vernon Avenue and Hwy 178; and
- F Street and Golden State Avenue.

Throughout the outreach process, which included general public outreach and meetings with stakeholders and steering committee members, additional secondary sites were identified. These locations were not included as recommended sites due to their limited use patterns, population, employment, or other transit dependent factors, reducing the site's ability to support a transit center or TOD site. However, should any of these factors unexpectedly increase; these sites have the potential to become ideal locations for a transit center or TOD site. These sites (shown in **Figure 2**) include:

- Santa Fe Way and 7th Standard Road;
- China Grade Loop at Airport Drive;
- China Grade Loop at North Chester Avenue;
- Morning Drive and Highway 178; and
- California Avenue and Highway 99.

Figure 1 Proposed Site Locations

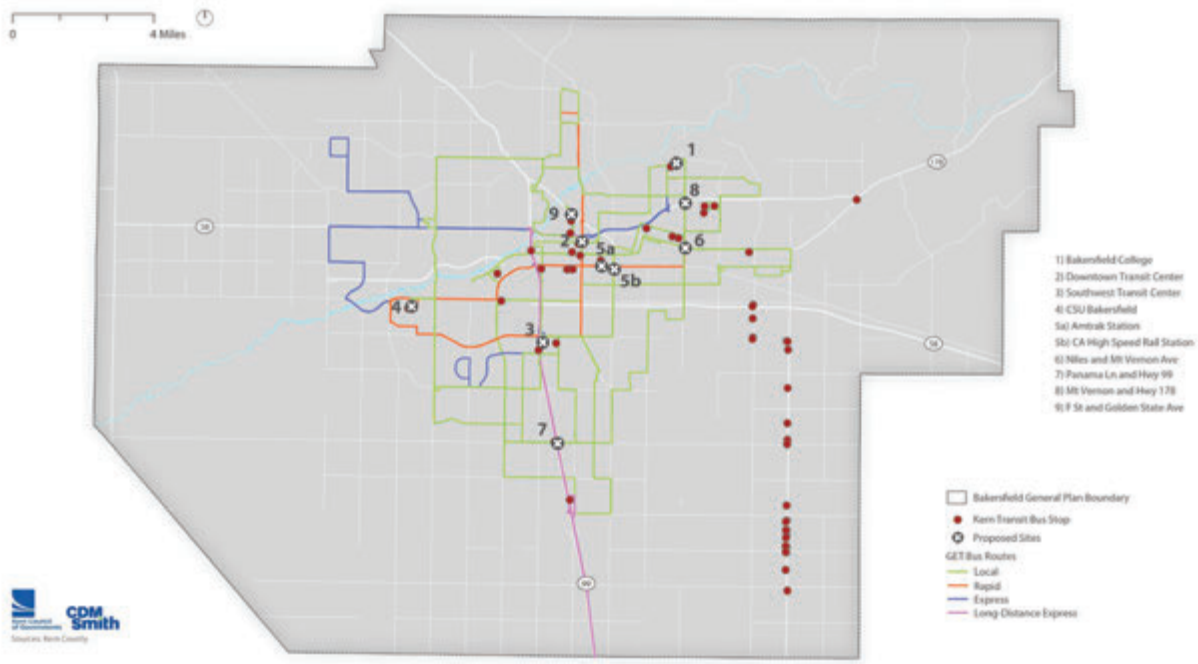
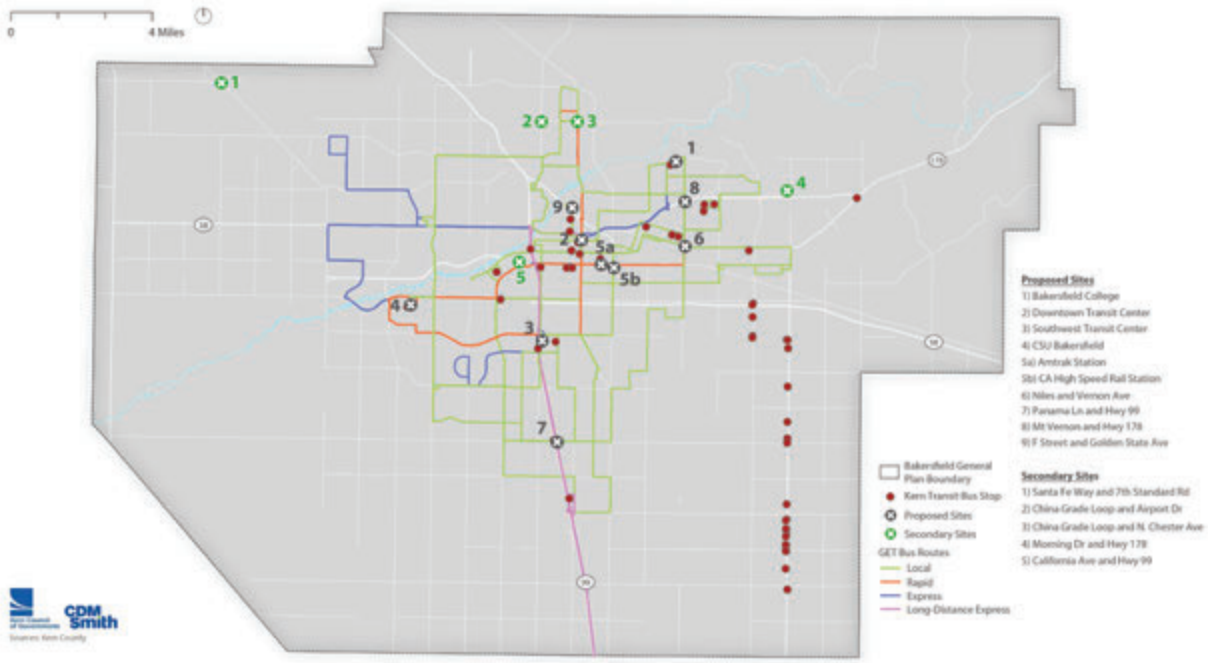


Figure 2 Secondary Site Locations



MARKET STUDY ASSESSMENT

A Market Study Assessment was conducted for the Bakersfield Transit Center Study to assess the TOD potential of the potential primary site locations. The objective of the study was to optimize the future location of the Transit Center by identifying areas within Kern County where land use and demographic characteristics would be supportive of transit ridership. This study included a zoning analysis, TOD market feasibility analysis, and a projected market demand analysis

Overall, the eight potential transit center site locations were ranked according to the TOD potential ranging from "Very Low" to "High" (see **Table 1**) based on a cumulative assessment of the criteria used throughout the TOD Market Study Assessment, including:

- Opportunities and constraints observed in the distribution and types of zoned uses;
- Implied allowable development densities associated with each zoning and use classification;
- Existing street block characteristics/level of walkability;
- Other relevant physical site conditions;
- Near-term market feasibility; and
- Projected market demand for residential, retail, and office uses.

Table 1 Zoning Potential for TOD

TOD Potential	Site(s)
High	Downtown Transit Center
Medium-High	Amtrak Station
Medium	Southwest Transit Center CSU-Bakersfield
Medium-Low	Bakersfield College Niles/Vernon Avenue
Low	Mt Vernon Ave/Highway 178
Very Low	Panama Lane/Highway 99

EVALUATION CRITERIA

As part of the Bakersfield Transit Center Study an assessment was conducted using criteria to evaluate the elements needed for a successful transit center and/or TOD project. A total of nine distinct criteria was used for the eight potential transit center site locations. These criteria were broken into four categories including station location, station design, nonmotorized access, and Transit Oriented Development potential. The results from the transit center and TOD evaluation are shown below in **Table 2** for each criteria. Among the eight transit center sites, the two sites located in the Downtown area (Downtown Transit Center and Amtrak Station) and the two colleges (Bakersfield College and CSU Bakersfield) were awarded the highest overall scores; all other sites received scores under 30.

Table 2 Evaluation Criteria Matrix

Evaluation Criterion		Transit Center Site Location							
		Bakersfield College	Downtown Transit Center	Southwest Transit Center	CSU Bakersfield	Amtrak Station	Niles and Mt. Vernon	Panama Lane and Hwy 99	Mt. Vernon and Hwy 178
Station Location Criteria									
1	**Potential to attract transit dependent riders**	2	3	3	2	3	4	3	3
2	**Access to GET and Kern Transit Buses**	4	5	3	3	4	4	4	3
3	**Access to statewide transit**	4	5	3	3	5	4	3	3
Subtotal		10	13	9	8	12	12	10	9
Station Design Criteria									
4	**Lighting, Aesthetics and Safety**	2	4	4	3	5	3	1	4
5	**Parking**	5	1	5	5	3	1	5	4
Subtotal		7	5	9	8	8	4	6	8
Nonmotorized Access Criteria									
6	**Pedestrian access and circulation**	3	5	1	5	5	3	1	2
7	**Bicycle access and circulation**	4	4	2	5	5	3	3	3
8	**Multimodal access and circulation**	4	2	1	5	5	3	4	3
Subtotal		11	11	4	15	15	9	8	8
Transit Center Total Score		28	29	22	31	35	25	24	25
Transit Oriented Development (TOD) Potential									
9	**Market feasibility**	3	3	3	3	3	1	5	1
Subtotal		3	3	3	3	3	1	5	1
Total		**31**	**32**	**25**	**34**	**38**	**26**	**29**	**26**

RECOMMENDATIONS

Through an iterative process including coordination with key stakeholders and members of the general public, a total of eight potential transit site locations were identified. These identified sites were based on several factors including existing planning documents, existing and planned transit routes, land uses and demographics of surrounding areas, and population and employment growth projections. Based on these factors, the eight transit site locations were selected for their ability to support a transit center. In addition, secondary sites were identified which currently do not exhibit optimum features to support a transit center, however, they are worth additional research should changes occur to affect the site's ability to effectively support a transit center.

Among the eight potential transit site locations identified, several would be suitable for short-term (2020) implementation while others would be more suitable for the long term horizon year of 2040.

Short-Term

The following sites are recommended for short-term implementation. These recommendations are based on being an existing location, already identified as a potential transit center in the Bakersfield LRTP, minimal improvements are needed for implementation, or high demographic growth in 2020 is anticipated. Although some of these sites were identified in the Bakersfield LRTP to be phased out in the interim years, these sites should be revisited for improvements and potential for TOD in the long-term.

- Bakersfield College
- Downtown Transit Center
- California State University Bakersfield
- Amtrak Station
- Southwest Transit Center

Long-Term

The following sites are recommended for long-term implementation. These recommendations are based on their need for major or significant changes to occur such as land use designations, property acquisitions, or growth not occurring until 2035 or 2040. These sites would require more detailed studies evaluating the policy, funding, and/or infrastructure needs.

- Panama Lane and Highway 99
- Mt. Vernon Avenue and Highway 178
- Niles and Mt. Vernon Avenue

2

INTRODUCTION

The purpose of the Metropolitan Bakersfield Transit Center Study is to identify locations for transit centers in Bakersfield due to anticipated growth and higher demand for transit service as well to identify the need for connectivity of various existing and future transit service connections. As a means to update the Transit Center Plans from the 2009 Metropolitan Bakersfield Transit System Long-Range Plan (LRTP), Kern Council of Governments (Kern COG) is partnering with Golden Empire Transit (GET), the City of Bakersfield, the County of Kern, and various stakeholders to determine how best to meet the public transit needs of the residents of Metropolitan Bakersfield over the next twenty years.

A primary goal of this study is to address emerging intra-city transit system needs. This effort provides assistance to public, transit and social service agencies within Metropolitan Bakersfield and assists with integrating these services to improve efficiency. In addition, the Study also addresses transit related policies and strategies of the Sustainable Community Strategy and Regional Transportation Plan (SCS/RTP).

PLANNING PROCESS

The planning process for this project included the evaluation of existing and future transit network; identification of potential transit centers and those suitable for Transit Oriented Development (TOD); and transit, multimodal, traffic, and environmental assessments of proposed sites. Key components of this process included a Technical Memorandum describing the methodology behind the selection of potential site locations and a TOD Market Assessment Study evaluating and identifying areas within Kern County where land use and demographic characteristics would be supportive of transit ridership. These reports were presented to the Kern COG Regional Planning Advisory Committee (RPAC), Technical Planning Policy Committee (TPPC), Kern COG Board of Directors and the Golden Empire Transit (GET) Board of Directors.

Throughout this process, community support and understanding of the project was obtained through the formation of a steering committee and public workshop meetings to elicit feedback and

input from stakeholders and the general public. A Study Fact Sheet (see **Appendix A**) which provided an overview of the study including the public engagement process, transit site evaluation process, and a list of the evaluated sites was made available to the public and provided at outreach events.

Stakeholders

While the project has the potential to affect several groups and organizations, key stakeholders include Kern COG, City of Bakersfield, GET, and Kern Transit. The Bakersfield Transit Center Study plays an important role for each of these organizations. Kern COG is Bakersfield's Council of Governments and is responsible for the Regional Transportation Plan (RTP) and the Sustainable Communities Strategy. The City of Bakersfield is responsible for ensuring the goals and objects of the Metropolitan Bakersfield General Plan are maintained. Local and regional bus transit is provided by GET and Kern Transit.

Representatives from each of these organizations were present at public outreach events and included as part of the steering committee.

Steering Committee

A steering committee, established by Kern COG, was formed to address coordination with other agencies and groups to guide the development of the Bakersfield Transit Center Study. The committee included at least two (2) representatives from:

- Kern COG
- City of Bakersfield
- Kern Transit
- Golden Empire Transit (GET)
- Kern County Public Health Department
- Clinica Sierra
- Downtown Business Association
- Kern Transportation Foundation
- Consolidated Transportation Service Agency
- Bike Bakersfield
- California State University Bakersfield

The purpose of this committee was to provide technical input and feedback for the project team. The steering committee met quarterly throughout the lifespan of the project and included agendas with recorded minutes. A total of four meetings occurred providing project updates and eliciting feedback/comments from the members of the committee.

Study Time Line

The study began in 2014 with project kick-off taking place May 1st, 2014 and took approximately 12 months to complete. Project milestones include the completion of a Technical Memorandum summarizing the selection of the proposed transit center locations, a TOD Market Study Assess-

ment evaluating the potential sites for supportive transit ridership, and two public workshops which took place on October 9th, 2014 and February 26th, 2015.

DOCUMENT OVERVIEW

This report is organized to include the following sections:

- **Background**: An overview of applicable existing planning documents as it relates to the Bakersfield Transit Center Study.
- **Public Outreach**: A detailed description of the public workshop outreach efforts to elicit public input.
- **Suitable Transit Center Locations**: A detailed description of the transit center site selection process and the proposed transit center site locations.
- **TOD Market Study Assessment**: An overview of potential transit center site locations' market potential for TOD development.
- **Transit Center and TOD Evaluation**: An overview of the criteria used to evaluate site locations for their potential as a transit center and/or TOD development.
- **Conclusion and Recommendations**: A description of the results from the Bakersfield Transit Center Study with recommendations and next steps.

This page intentionally left blank.

3

BACKGROUND

The following section provides a review of applicable planning documents as it relates to the Bakersfield Transit Center Study. The planning documents consist of plans from Metropolitan Bakersfield and Kern Council of Governments. An overview of each document is provided highlighting its relevancy to a Bakersfield Transit Center. A complete description of these planning documents can be found in **Appendix B.**

METROPOLITAN BAKERSFIELD

Metropolitan Bakersfield General Plan

The Metropolitan Bakersfield General Plan, adopted in 2002, provides comprehensive long range guidance to carry out the vision of the Bakersfield area. The circulation element outlines goals and policies for focus areas which include streets, transit, bikeways, parking, and airports. The goals for transit include:

- Provide planning area residents with a choice of travel nodes.
- Provide a street system and land development policies that support public transportation.
- Provide cost effective public transportation services.
- Reduce traffic congestion and parking requirements and improve air quality through improved transportation services.
- Enhance rail service capacities and usage in the planning area.

Metropolitan Bakersfield Transit System Long-Range Plan

The Kern Council of Governments (Kern COG) and the Golden Empire Transit District (GET) prepared the Metropolitan Bakersfield Transit System Long-Range Plan (LRP) in April 2012. The LRP reviews existing conditions, best practices, and public outreach to recommend (1) short-term and (2) midterm & long-term service plans. Additionally, the plan includes financial scenarios for the two service plans, identifies potential new funding sources, and provides an implementation plan.

The existing transit network includes two transit centers – Downtown Transit Center and Southwest Transit Center – with a third transit center at Bakersfield College currently under construction.

The Short-Term (2013-2020) service plan seeks to attract new riders by providing faster Bus Rapid Transit (BRT) and express services and provide high levels of transit service where demand is likely to be highest.

The Midterm (2021-2025) & Long-Term (2026-2035) service plans allow for a higher service network but implements a different type of network, a "grid" system. The grid system allows for transfers to be made at points throughout the system rather than at central Transit Centers requiring route deviations. As such, the Downtown Transit Center and Southwest Transit Center will be phased out for these service plans. The grid network, however, would be dependent on more frequent service, as transfers cannot be timed at many different locations.

Greater Bakersfield Vision 2020

The Bakersfield Vision 2020 was created in 2001 from the efforts of more than 13,000 individuals including residents and local, state, and federal officials. The goal of the document is to provide a long-term vision and action plan for the community. A total of seven topics are covered, each including a set of strategies and specified actions necessary to carry out the vision.

As it relates to the Metropolitan Bakersfield Transit Center Study, the Transportation Vision includes a set of 11 strategies to carry out the Vision and states:

> *"Greater Bakersfield is a community that is proud of its efficient, environmentally friendly transportation system that serves all areas of the community. As an international gateway with a modern airport, our community is connected to major cities within California through a high-speed rail system."*

KERN COUNCIL OF GOVERNMENTS

Kern COG Regional Blueprint Program

The Regional Blueprint Program was adopted by Kern COG in 2008. The goal of the program was to create a mutual vision, create a set of guiding principles promoting the region's unique quality of life, and formulate an alternative scenario of how the region could grow.

The program sought input through an extensive participatory program which reached out to the public, elected officials, and various organizations including public agencies and many others. Through a range of public participation opportunities, such as 34 town hall meetings, a total of nine principles were developed to provide guidelines for growth.

In addition, the blueprint program projected growth scenarios which were presented to the public. Based on the various growth scenarios and the input and feedback from the public, a preferred growth alternative was identified. As it relates to the Metropolitan Bakersfield Transit Center Study, this alternative scenario is used to develop various alternative options for growth and transportation systems.

Kern COG 2014 Regional Transportation Plan and Sustainable Community Strategy

Regional Transportation Plan

The 2014 Regional Transportation Plan (RTP) is a long-range plan which acts as a blueprint to establish a set of regional transportation goals, policies and actions to guide development of a multimodal transportation system in Kern County. In addition, the RTP provides a list of projects for 2014 through 2040 and beyond. A summary of these projects as they relate to the Metropolitan Bakersfield Transit Center Study are included in **Table 3**.

Table 3 Summary of RTP Projects

Location	Project Scope	YOE Cost (in dollars)[1]
2014-2040 (Constrained Projects)[2]		
Metropolitan Bakersfield	3 Transfer Stations	15,000,000
Metropolitan Bakersfield	Park and Ride Lots (1,500 spaces)	6,000,000
Bakersfield	High Speed Rail Station – Bakersfield	50,000,000
Region	High Speed Rail Alignment and Facilities Fresno to Bakersfield	1,000,000,000
Region	Amtrak Station – Phase II	13,000,000
Beyond 2035 (Unconstrained Projects)[3]		
Shafter, Bakersfield	Amtrak San Joaquin's stop in North/ West Bakersfield	5,000,000
Delano Shafter, Bakersfield	Up to 4 Amtrak San Joaquin's stops on BNSF	20,000,000
Buttonwillow, Southwest Bakersfield	Metro/Southwest Corridor	158,300,000
Arvin, Lamon, Southeast Bakersfield	Metro/Southeast Corridor	162,400,000
Wasco, Shafter, Northwest Bakersfield	Metro/Northwest Corridor	220,600,000
Bakersfield	Metropolitan Bakersfield Light Rail System	4,000,000,000
Kern, L.A. County	Northwest of Bakersfield to Palmdale HSR (initial operation segment from Madera to Palmdale Metrolink Service)	20,000,000,000

Source: Draft 2014 Kern COG Regional Transportation Plan
1: YOE - Year of Expenditure
2: Constrained Projects – Projects with identified funding source
3: Unconstrained Projects – Projects which have no identified funding source

Sustainable Community Strategy

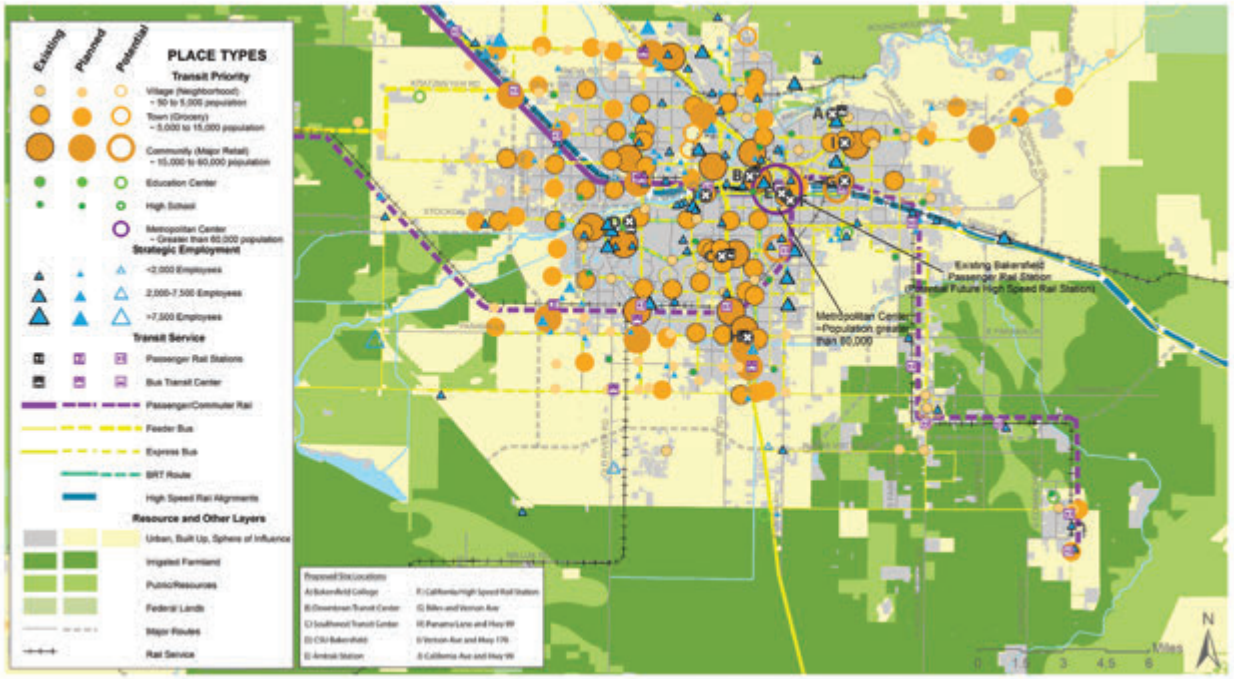
The goal of the Kern COG Sustainable Community Strategy (SCS) is to reduce greenhouse gas emissions from automobiles and light trucks to assist with the state's emissions reduction targets.

The Sustainable Community Strategy (SCS) is a required chapter of the Kern COG Regional Transportation Plan (RTP) and outlines how the region will meet the emission reduction targets.

Pertinent to the Metropolitan Bakersfield Transit Center Study the SCS chapter discusses place types (Transit Priority Areas – Metropolitan, Community, Town, and Village, and Strategic Employment

Areas) and planned transportation investments (see **Figure 3**). The chapter describes how transportation investments are being coordinated with forecasted development patterns to increase transportation efficiency for the region and meet the goals of the SCS.

Figure 3 Sustainable Communities Strategy Transit Priority Areas



BICYCLE PLANS

City of Bakersfield Bicycle Transportation Plan

Adopted in 2013, the City of Bakersfield Bicycle Transportation Plan provides a blueprint for making bicycling an integral part of daily life in Bakersfield. With input from the community and analysis of existing conditions and travel patterns, the plan seeks to expand the bikeway network, complete network gaps, and provide greater connectivity to activity centers.

Bakersfield's existing network consists of just over 143 miles of bikeways, the vast majority of which are bike lanes on arterial and collector roadways. To improve upon the existing bicycle facilities, the plan identifies two types of improvements intended to make bicycling more comfortable and accessible for bicyclists of all skill levels and trip purposes, network improvements and spot improvements. Network improvements will fill gaps in the existing network so the community has a seamless bicycle network while spot improvements identify specific locations for focused improvements.

Recommendations also include the development of a bicycle parking plan, with an emphasis on parking at key attractions including transit stations. Bicycle detection at traffic signals is recommended at all actuated intersections along existing and proposed bikeways, and the Plan encourages the City to expand the bicycle detection program to all actuated signals in the city. Markings guiding bicyclists to the appropriate position should also be installed. The Plan also recommends a way

finding program, installing signs at key decision points along with confirmation signs that display destinations and mileage.

Finally, the Plan recommends the City undertake a feasibility study for a bike share system. Often seen as an extension of transit, bike share systems provide users with "on-demand" bicycles for fast and easy transportation, helping to complete the first- and last-mile dilemma faced by many transit riders. CSU Bakersfield and Bakersfield College are recommended to be considered for potential bike share stations.

Kern County Bicycle Master Plan and Complete Streets Recommendations

The Kern County Bicycle Master Plan and Complete Streets Recommendations (October 2012) focuses on improving conditions for bicycling in the unincorporated areas of Kern County, including Metropolitan Bakersfield. In addition to proposed bicycle related improvements, this plan also presents recommendations for complete streets.

The recommended improvements for bicycle facilities include extending existing or planned facilities within the City of Bakersfield into the surrounding suburban and exurban developed areas, as well as developing regional bikeways to link communities in Kern County.

The recommended improvements for complete streets are general policy and guidance recommendations that describe common best practices in designing complete streets for pedestrians, bicyclists, transit users, and motorists. Connections between bicycling and transit are called out, noting the importance of providing secure bicycle parking at transit stops and offering clear route and schedule information.

RAIL PLANS

California State Rail Plan

In May of 2013 California Department of Transportation (Caltrans) produced the 2013 California State Rail Plan (CSRP). The goal of the CSRP is to establish a statewide vision and objectives, set priorities, and develop implementation strategies to enhance passenger and freight rail service in the public interest. The CSRP acts as a guide for federal and state rail investments and provides a comprehensive listing of long-range investment needs for California's passenger and freight infrastructure.

The CSRP integrates the California High Speed Rail Authority's (Authority) implementation plans, and the 2012 Revised Business Plan. Pertinent to the Metropolitan Bakersfield Transit Center Study, Bakersfield is among the first of many cities to be served by HSR. The 2012 Revised Business Plan outlines a blended approach, a key element to the implementation of the HSR system, which contains two phases. The first phase aims to connect San Francisco, the Central Valley, and Los Angeles/Anaheim with the use of a blended system of dedicated HSR and existing rail. The final phase will complete the statewide system by extending to Sacramento and San Diego.

Kern Commuter Rail Feasibility Study

In July of 2012 Kern Council of Governments (Kern COG) developed the Commuter Real Feasibility Study to evaluate potential commuter rail service within Metropolitan Bakersfield and the

surrounding areas of Kern County. The study identifies six potential commuter rail corridors which were screened based on a set of evaluation criteria (including socioeconomic data, costs, operations, etc.) using forecast year 2035 conditions to determine the "need" of the corridors. The results of this screening process identified two alternatives for ridership modeling.[1] Among these two alternatives, a preferred alternative was selected comprising of pieces from the Northwest and Southwest potential commuter rail corridors; running from Delano West through Downtown Bakersfield to the Frito-Lay plant.

The study findings indicated that limited implementation of a commuter rail service within Kern County can be recommended only if conditions are present. These conditions are highly dependent on the implementation and construction of the California High Speed Rail (HSR) project; ridership projections without the California HSR were found to be too low to justify implementation. The study concludes that if the California High Speed Rail Services are implemented before 2035, there may be potential for justification for Kern COG to implement limited commuter rail services between Delano and Bakersfield, and perhaps to locations south of Bakersfield in Arvin and Buena Vista.

Kern Transit Operational Reports

Kern Transit provides bus service to Metropolitan Bakersfield with seven bus routes. The bus routes, days of service, service areas, and total maximum riders are highlighted below. The total maximum bus riders does not provide ridership, however, it does provide some indication of which routes are used more heavily (**Table 4**).

Table 4 Kern Transit Bus Operations

Route	Days of Operation	Service Areas	Total Maximum Bus Riders[1]		
			Weekday	Saturday	Sunday
East Kern Express	Monday - Sunday	Bakersfield, Keene, Tehachapi, Mojave, Rosamond, and Lancaster	654	665	674
Frazier Park	Monday - Saturday	Bakersfield, Gorman, Pinon Pines, Lake of the Woods, Lebec, and Frazier Park	112	115	--
Kern River Valley	Monday - Saturday	Kernville, Lake Isabella, Onyx	140	149	--
Lamont/ Bakersfield	Monday - Saturday	Bakersfield, Lamont, Weedpatch, Arvin	531	301	--
Lost Hills	Thursday and Saturdays	Bakersfield, Shafter, and Wasco, Lost Hills	62	34	--
North Kern Express	Monday - Sunday	Bakersfield, Shafter, Wasco, McFarland, and Delano	365	493	301
Westside Express	Monday - Saturday	Bakersfield, Taft Heights, Ford City, and Taft	351	189	--

1: Total of the maximum number of riders on the bus at each stops for all trips throughout the day

1 *The ridership model was developed based on a model used for the Altamont Commuter Express (ACE)*

OTHER APPLICABLE DOCUMENTS

Charlotte Region Transit Station Area Joint Development

As it relates to the Metropolitan Bakersfield Transit Center Study, the Charlotte Region Transit Station Area Joint Development provides an example of principles and policy guidelines for transit station development.

To ensure long-term success in the establishment of an extensive rapid transit system in the Charlotte region of North Carolina, the Transit Station Area Joint Development Principles were adopted in 2002. The goal of the principles was "to provide a framework to be used by local governments to encourage and promote transit supportive development at transit stations." As a means to implement the principles a set of policy guidelines were provided to act as tools for implementation.

This page intentionally left blank.

4

PUBLIC OUTREACH

In coordination with Kern COG and members of the steering committee, public outreach efforts were conducted. These outreach efforts included a focus on engaging stakeholders and the general public in the planning process and providing them with multiple opportunities to participate. These efforts included public workshop meetings, online surveys, and additional outreach at various public engagement events; all printed material presented at public events were provided in both English and Spanish.

PUBLIC WORKSHOP

The project team conducted two public workshops throughout the duration of the project. The first of the two workshops engaged stakeholders and members of the general public with an open discussion of transit centers, their role within Metropolitan Bakersfield, and opened initial discussion of potential site locations. The last of the two workshops presented initial site selections to elicit feedback and opened discussion to additional site locations outside of the initial sites. In addition, these same exercises were conducted at the Third Thursday's Public Fairs held at Central Park during the Fall and at the annual GIS Day conference held in November 2014.

Public Workshop 1

The first public workshop was held on October 9th, 2014 and introduced the project to stakeholders and members of the public. In addition to a presentation on transit centers, surveys were conducted and attendees were given the opportunity to discuss and recommend potential site locations; the survey was also made available online for 30 days to enhance outreach efforts. Survey respondents were given the opportunity to provide initial comments on the project, components they would like to see in the transit center, and location preferences.

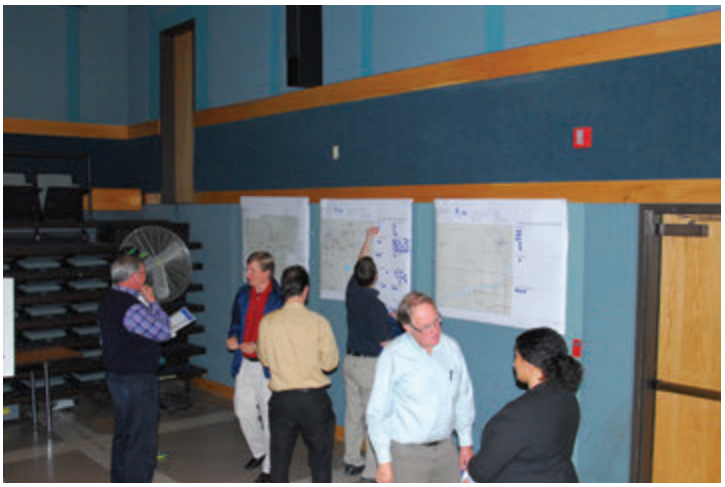
A full description of the survey results are found in **Appendix C**. The survey resulted in a total of 26 responses. As it relates to the Metropolitan Bakersfield Transit Center Study, the top two site locations included Downtown and California State University Bakersfield. Additionally, the top preference for amenities was a bicycle rack, indicating the desire for a multi-modal transit center. Photos from the workshop are shown below.

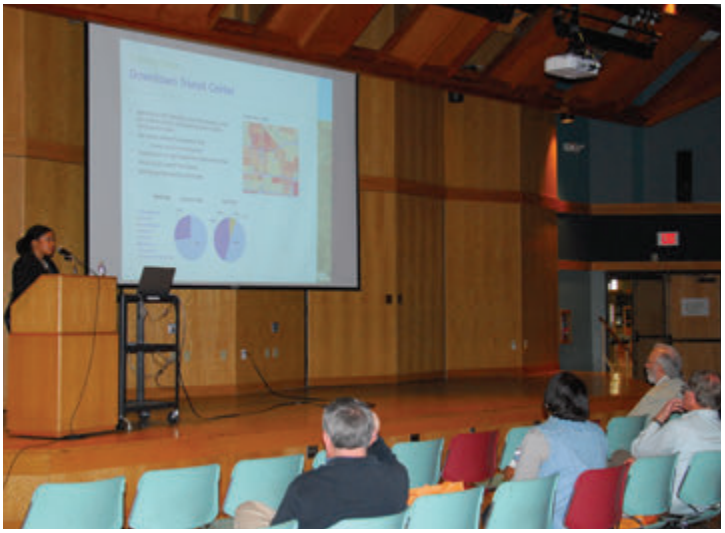
Photos from Public Workshop 1

Public Workshop 2

The second public workshop was held on February 26th, 2015 and presented potential site locations to stakeholders and members of the public. Following a presentation of the potential site locations, attendees were given an opportunity to indicate their transit center site location preference through a sticker exercise. The sticker exercise allowed attendees to place five stickers to site locations at their preference. In addition, attendees were asked to complete a paper survey also indicating their site location preference. A full description of the survey results are found in **Appendix D**.

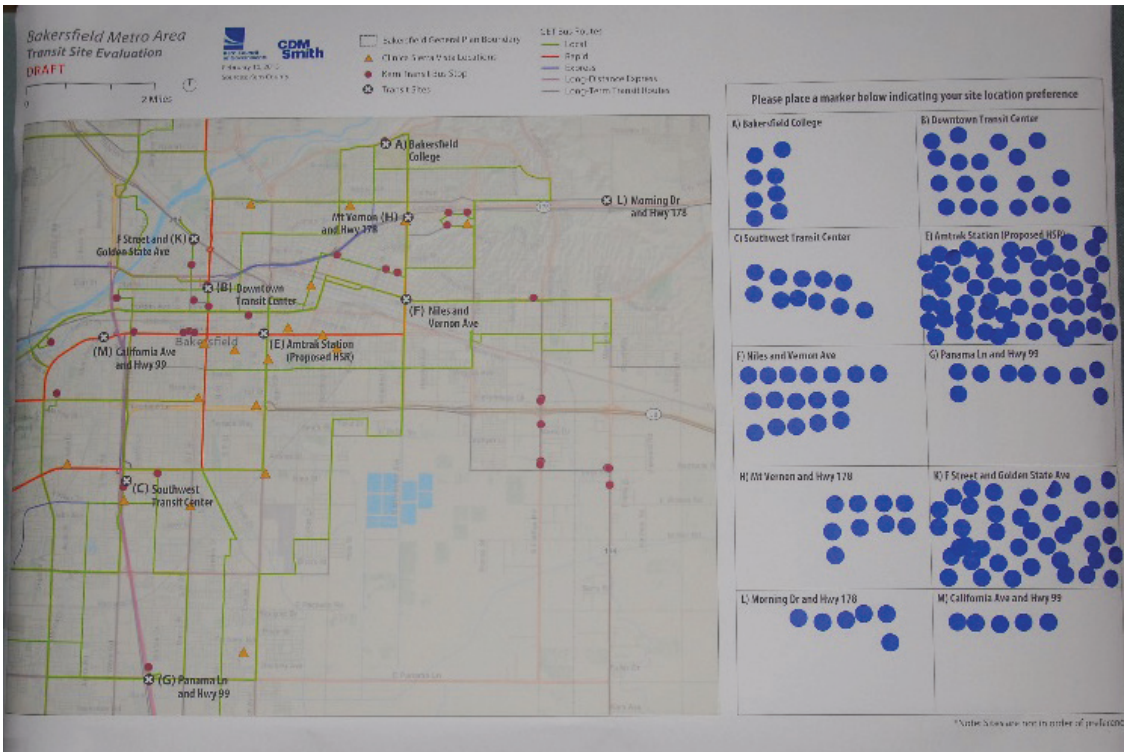
The top three site location preferences (see **Figure 4**) from the sticker exercise included the Amtrak Station, F Street/ Golden State Avenue, and California State University Bakersfield; the top three site location preferences from the survey included the Amtrak Station, Downtown, and California State University Bakersfield.

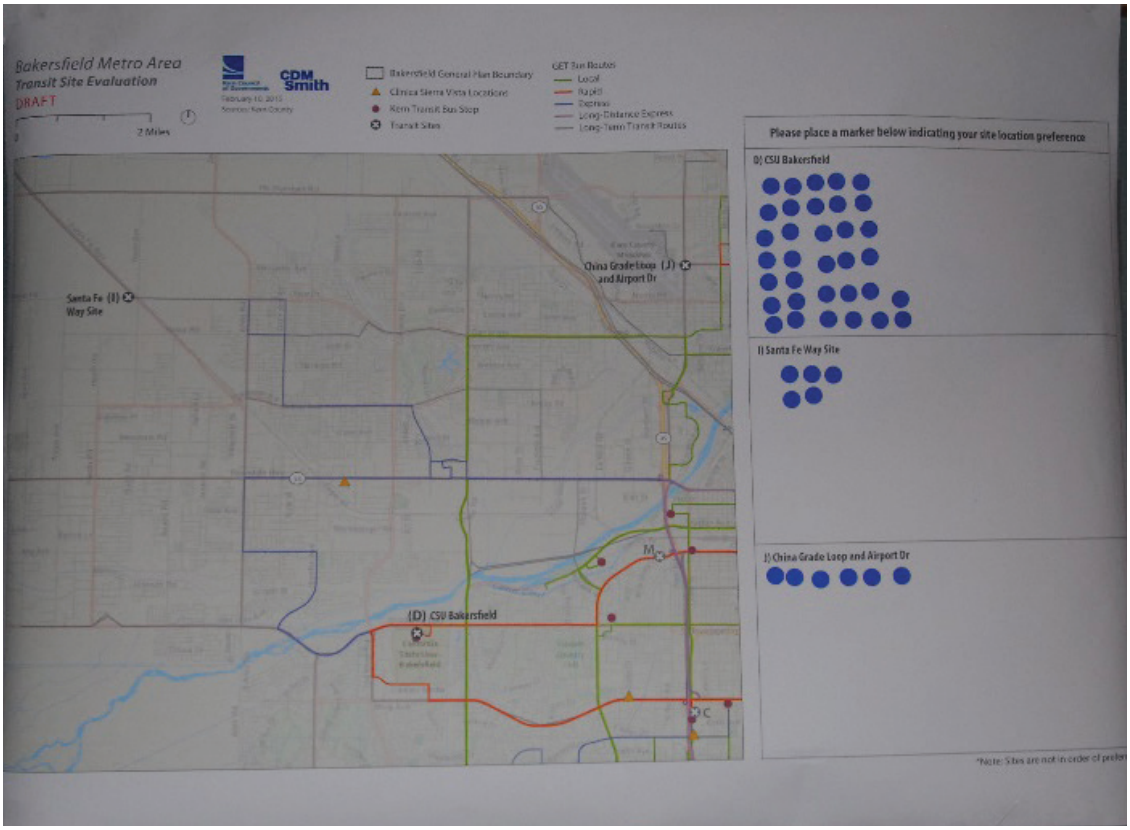




Photos from Public Workshop 2

Figure 4 Public Workshop 2 Results





5

SUITABLE TRANSIT CENTER LOCATIONS

This section summarizes the selection process of proposed transit center site locations for the Metropolitan Bakersfield area. Through the analysis and evaluation of planning documents, existing demographics, projected population and employment, and public input, a total of ten primary and five secondary site locations were identified. A Technical Memorandum (see **Appendix E**) was prepared describing the methodology behind the selection of the potential site locations and a detailed description of each site location.

PRIMARY SITE LOCATIONS

Proposed transit center locations were based on several factors including the plans and goals outlined in the Bakersfield Transit System Long-Range Plan (LRTP), the City of Bakersfield Bicycle Transportation Plan, California High Speed Rail Station Area Plans, existing and planned transit routes, land uses and demographics of surrounding potential sites, first and last mile connections, potential for TOD, and population and employment growth trends; additionally, public outreach was conducted (discussed further in the next section).

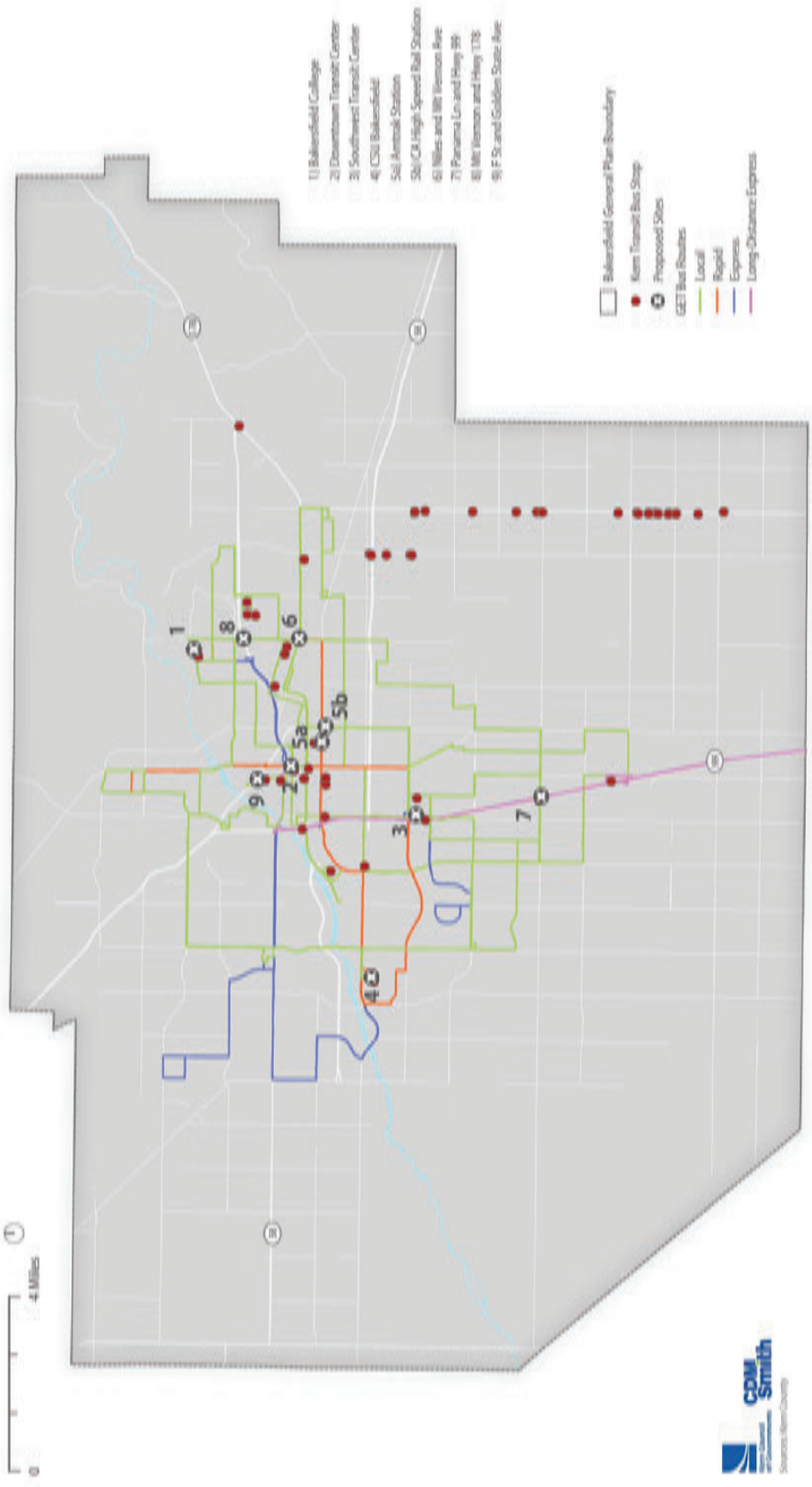
A total of ten sites were identified including existing and proposed locations (shown in **Figure 5**). Each site is described in further detail in the following section; sites are not listed in order of priority.[2] Existing transit center locations are included for a baseline comparison against potential future locations and for evaluating the potential for Transit Oriented Development (TOD). It is important to note, two locations (California High Speed Rail Station, and F Street and Golden State Avenue) were initially identified as primary site locations but have since been under consideration by the California High Speed Authority as potential High Speed Rail sites and are thus not under analysis as a potential site for the Bakersfield Transit Center Study. The primary sites include:

- **Bakersfield College**: North of campus along Panorama Drive.

2 To provide an example of the level of analysis conducted in the Technical Memorandum, the Southwest Transit Center and the Niles and Mt. Vernon Avenue sites include detailed charts and figures.

- **Downtown Transit Center**: Existing Transit Center along Chester Avenue between 22nd and 21st Streets.
- **Southwest Transit Center**: Existing Transit Center along Wible Road adjacent to the Valley Plaza Mall.
- **California State University Bakersfield**: Planned Transit Center in the Bakersfield LRTP.
- **Amtrak Station (without HSR)**: Existing Transit Center providing regional access with Amtrak.
- **California High Speed Rail Station (with HSR)**: Potential Transit Center site providing regional access with Amtrak/HSR.
- **Niles and Mt. Vernon Avenue**: Potential Transit Center site located in eastern Bakersfield.
- **Panama Lane and Hwy 99**: Potential Transit Center site located in southern Bakersfield.
- **Mt. Vernon Avenue and Highway 178**: Potential Transit Center site located in northeastern Bakersfield.
- **F Street and Golden State Avenue**: Potential Transit Center site located north of Downtown Bakersfield.

Figure 5 Proposed Site Locations



Demographic and land uses surrounding the transit center sites are shown below in **Tables 5 and 6**. The demographic assessment focused on transit dependent users such as low-income, minority, youth, senior, and households with no vehicles; high concentrations were criteria for site recommendation. Surrounding land uses are also vital to support a transit center, as the immediate adjacent area's ability to attract and/or produce activity offer ridership for a transit center.

Table 5 Existing Demographics

Site	Description	Total Population	Total Households	Low-Income Population	Minority Population	Youth Population	Senior Population	Households with No Vehicle
Quarter Mile (Existing)								
1	Bakersfield College	206	85	87 (42%)	102 (50%)	38 (18%)	40 (19%)	2 (2%)
2	Downtown Transit Center	180	63	113 (63%)	94 (53%)	24 (13%)	15 (8%)	18 (29%)
3	Southwest Transit Center	1,000	313	515 (52%)	516 (52%)	417 (42%)	84 (8%)	20 (7%)
4	Cal State Bakersfield	201	87	64 (32%)	52 (26%)	19 (10%)	14 (7%)	9 (10%)
5a	Amtrak Station	258	102	195 (75%)	168 (65%)	53 (21%)	34 (13%)	36 (36%)
5b	HSR Station	388	117	251 (65%)	201 (52%)	80 (21%)	39 (10%)	34 (29%)
6	Niles and Vernon Ave	2,069	588	1368 (66%)	1012 (49%)	743 (36%)	72 (3%)	162 (28%)
7	Panama Ln and Hwy 99	1,077	259	610 (57%)	530 (49%)	360 (33%)	51 (5%)	18 (7%)
8	Vernon Ave and Hwy 178	1,245	391	657 (53%)	554 (45%)	403 (32%)	146 (12%)	60 (15%)
9	F St and Golden State Ave	310	121	118 (38%)	94 (30%)	64 (21%)	33 (11%)	23 (19%)
Half Mile (Existing)								
1	Bakersfield College	1,493	552	548 (37%)	505 (34%)	345 (23%)	238 (16%)	28 (5%)
2	Downtown Transit Center	1,156	496	699 (60%)	519 (45%)	168 (15%)	111 (10%)	106 (21%)
3	Southwest Transit Center	4,681	1448	2590 (55%)	2126 (45%)	1750 (37%)	405 (9%)	133 (9%)
4	Cal State Bakersfield	1,021	415	284 (28%)	309 (30%)	174 (17%)	101 (10%)	40 (10%)
5a	Amtrak Station	2,440	700	1660 (68%)	1119 (46%)	475 (19%)	268 (11%)	175 (25%)
5b	HSR Station	2,904	740	1910 (66%)	1174 (40%)	623 (21%)	240 (8%)	137 (19%)
6	Niles and Vernon Ave	6,790	1780	4490 (66%)	3435 (51%)	2609 (38%)	276 (4%)	527 (30%)
7	Panama Ln and Hwy 99	4,262	1062	2329 (55%)	2065 (48%)	1414 (33%)	225 (5%)	58 (5%)
8	Vernon Ave and Hwy 178	5,263	1682	2530 (48%)	2174 (41%)	1588 (30%)	594 (11%)	201 (12%)
9	F St and Golden State Ave	2,173	849	1108 (51%)	695 (32%)	468 (22%)	209 (10%)	158 (19%)

Table 6 Projected Demographics

Site	Description	Population				Employment			
		Base	2020	2035	2040	Base	2020	2035	2040
Quarter Mile (Projected)									
1	Bakersfield College	71	70	237	315	420	437	452	454
2	Downtown Transit Center	274	2,267	2,469	2,486	3,511	3,548	5,249	5,279
3	Southwest Transit Center	620	704	2,007	2,009	1,753	1,767	4,377	4,377
4	Cal State Bakersfield	32	32	86	122	674	679	711	679
5a	Amtrak Station	163	788	1,227	1,228	3,998	5,569	7,290	7,293
5b	HSR Station	211	393	666	666	1,117	2,265	4,030	4,036
6	Niles and Mt. Vernon Ave	1,972	1,972	2,059	2,247	54	57	57	95
7	Panama Ln and Hwy 99	122	161	343	343	365	39	39	39
8	Mt. Vernon Ave and Hwy 178	842	850	880	1,001	785	695	695	695
9	F St and Golden State Ave	424	362	380	424	978	1,044	2,393	2,693
Half Mile (Existing)									
1	Bakersfield College	1,223	1,266	2,179	2,450	1,183	1,224	1,249	1,292
2	Downtown Transit Center	1,137	6,827	7,649	7,760	11,627	11,710	20,837	20,986
3	Southwest Transit Center	4,481	4,378	7,862	7,928	3,628	3,496	9,553	9,638
4	Cal State Bakersfield	508	556	894	1,073	2,437	2,464	2,464	2,464
5a	Amtrak Station	1,499	5,898	7,404	7,512	9,746	12,407	17,351	17,365
5b	HSR Station	1,630	4,038	5,777	5,823	8,448	11,103	16,401	16,441
6	Niles and Mt. Vernon Ave	6,769	6,785	7,110	8,017	612	627	631	772
7	Panama Ln and Hwy 99	3,324	4,441	7,345	7,345	656	846	1,113	1,171
8	Mt. Vernon Ave and Hwy 178	4,128	4,053	4,494	5,868	2,124	2,069	2,069	2,069
9	F St and Golden State Ave	1,952	2,123	2,232	2,913	3,494	3,598	8,330	9,079

While the Technical Memorandum evaluates various existing and projected demographics, the following are presented to provide examples of the analysis conducted. Low-Income Population, Projected 2040 Population and Employment, and existing transit maps are shown in **Figures 6, 7, 8 and 9**.

Figure 6 Low-Income Population by TAZ

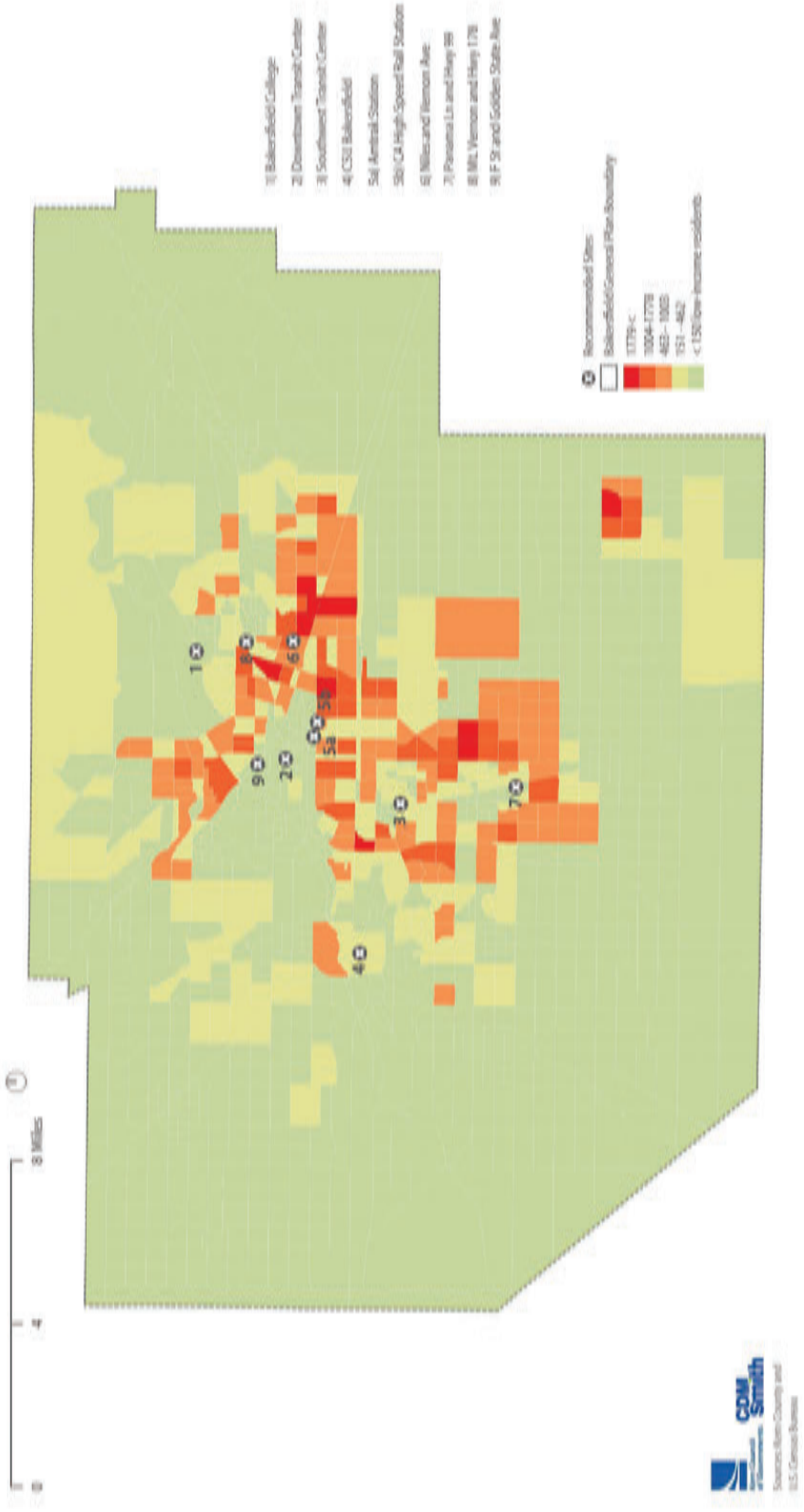


Figure 7 Projected 2040 Population by TAZ

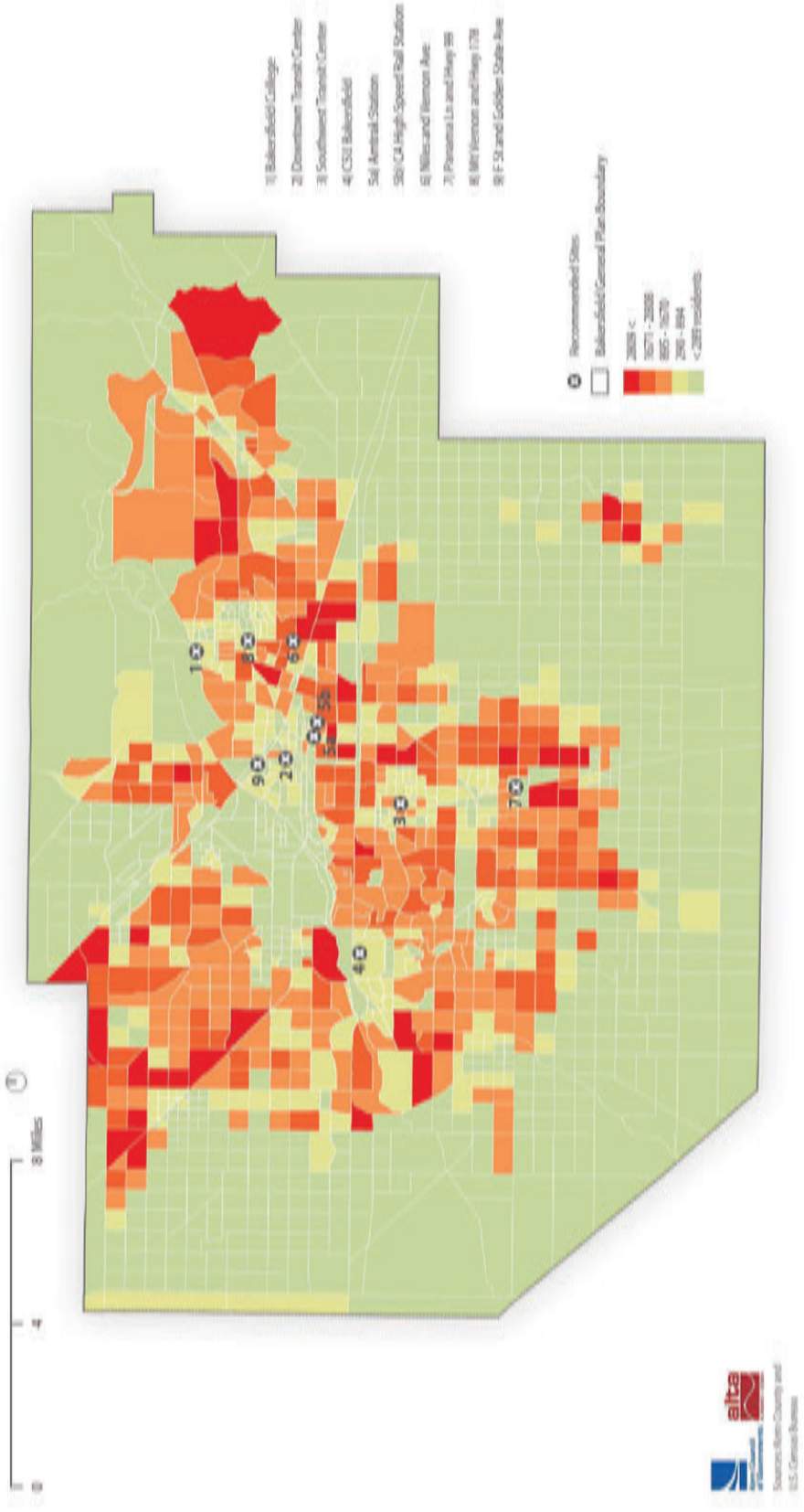


Figure 8 Projected Employment by TAZ

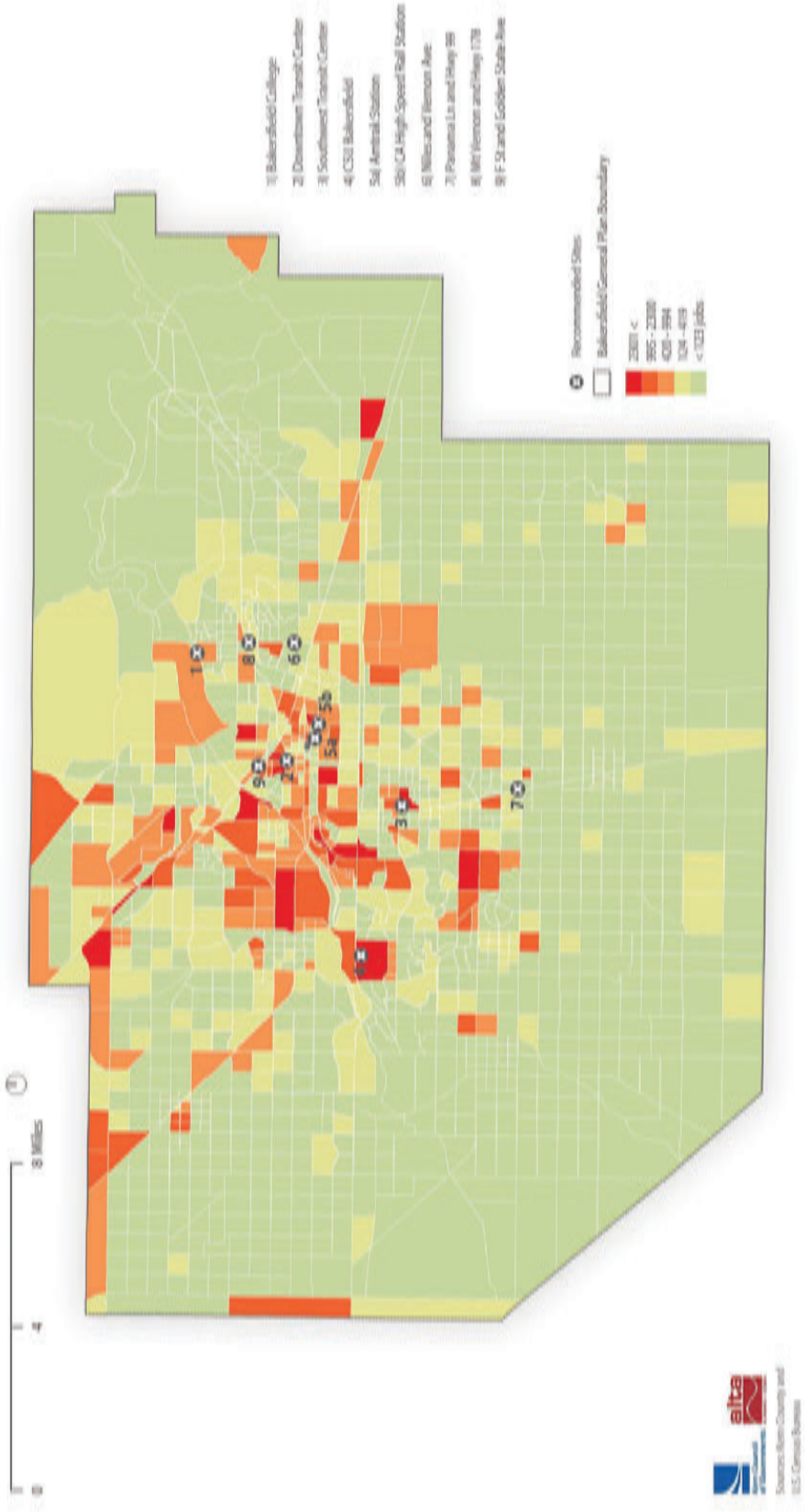
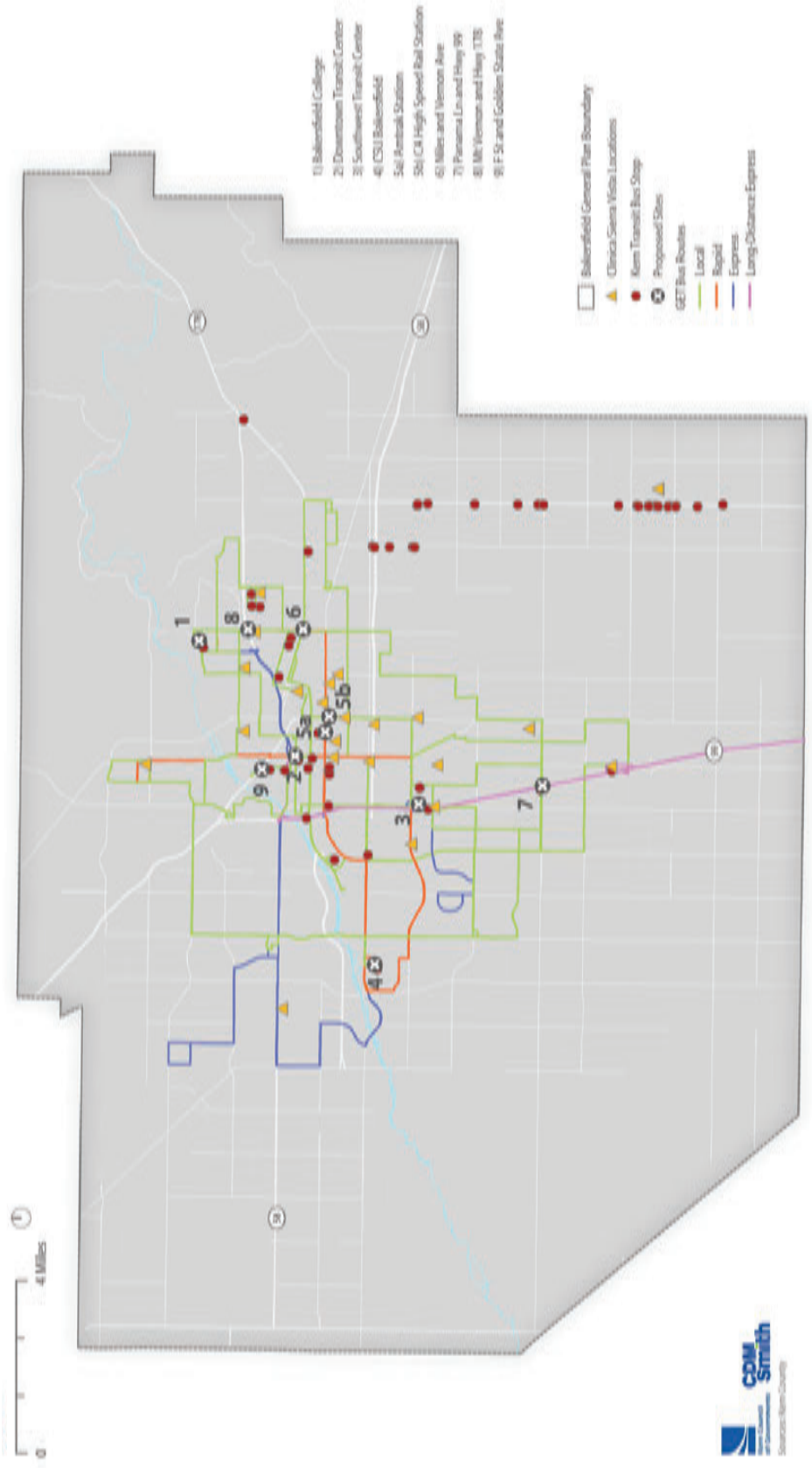


Figure 9 Existing Transit



Bakersfield College

The Bakersfield College site location is an existing transit center site with access to GET and Kern Transit bus service. The site has been identified in the Bakersfield LRTP as a location planned for fast and frequent service enhancing the site's ability to be a suitable transit center site; additionally, expanded bicycle access is provided with plans for additional future routes. The site also exhibits moderately high populations of two of the five transit dependent populations (low-income and minority) with moderately high employment in the short-term (2020) and long-term (2040).

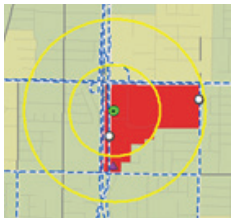
Downtown Transit Center

While the Downtown Transit Center site location is identified in the Bakersfield LRTP as an existing transit center that would be phased out in the midterm (2021-2025) and long-term (2026-2035) service plans, the site itself can be utilized for potential Transit Oriented Development (TOD). The site includes access to transit through several GET and Kern Transit bus routes and a high amount of surrounding mixed-use land use; additionally, the site is within close proximity of the Bakersfield Amtrak station providing statewide access. Population is also anticipated to become significantly denser in the short-term and continue to grow in the long-term.

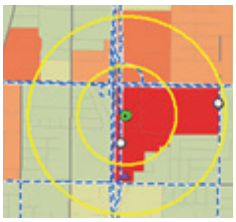
Southwest Transit Center

The Southwest Transit Center is also identified in the Bakersfield LRTP as a transit center that will be phased out in the midterm (2021-2025) and long-range (2026-2035) service plans, similar to the Downtown Transit Center. Also similar to the Downtown Transit Center site, the Southwest Transit Center site can be utilized for TOD potential. The site includes access to transit through several GET and Kern Transit bus routes and is located adjacent to the Valley Plaza shopping mall enhancing TOD potential. However, the Valley Plaza shopping mall currently has several large retailers on the site, a relocation to the south could optimize TOD potential by providing higher variety in dense land uses. The site is also suitable with high concentrations of employment expected in the short-term (2020) and those projections will more than double by the long-term (2040), further supporting transit center and TOD activity. Existing land uses and employment projections are shown below. To provide an example of the level of analysis conducted for the Technical Memorandum, existing land uses and employment projections are shown below.

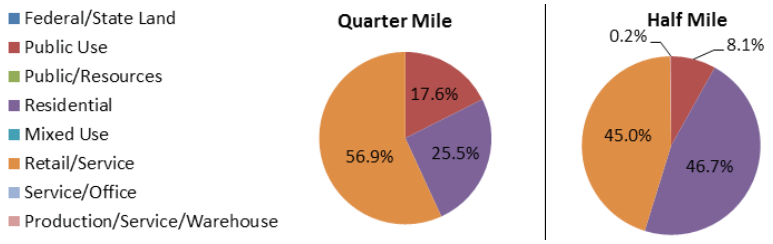
Employment 2020



Employment 2040



Land Use



California State University Bakersfield

The California State University Bakersfield site location has been identified in the Bakersfield LRTP as a planned transit center and provides existing access with a ¼ mile to GET and Kern Transit bus routes. The bicycle access for the site is highlighted with existing and proposed routes planned in the City of Bakersfield Bicycle Transportation Plan. In addition, the Bicycle Transportation Plan also recommends this site as a potential bike share location supporting multi-modal access. Although the site does not observe a high concentration of transit dependent populations, usage will still occur as the University creates high trip attraction. Lastly, existing and projected demographics show employment is high and is anticipated to remain high in the short-term and long-term.

Amtrak Station

The Amtrak Station is included as a site location due to its regional access. Amtrak users have access to GET and Kern Transit bus routes and bicycle routes. The site is also under consideration by the California High Speed Rail Authority and is located immediately south of the Amtrak Station further enhancing the station's access. The site was selected for short-term implementation until the HSR station is implemented. Improvements to the station include the enhancement of bicycle facilities as planned in the City's Bicycle Transportation Plan and Kern COG 2014 Regional Transportation Plan. Additionally, the site provides TOD opportunity as it is surrounded with a growing high concentration of employment and a mix of supporting land uses in the adjacent areas; high amounts of transit dependent populations are also observed including low-income and minority populations and households with no vehicles.

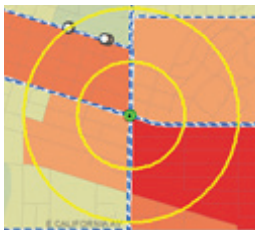
HSR Station

The HSR Station site is included as a site location due to its connectivity to the planned California HSR system for regional access. Local access is provided through GET and Kern Transit bus routes. Additional access is provided with existing and planned future bicycle routes as identified in the City's Bicycle Transportation Plan. The HSR Station site was selected for long-term implementation and is dependent on the implementation of a HSR station at the site location. The surrounding demographics indicate a high concentration of transit dependent populations including low-income, minority, and households with no vehicle with employment density expected to drastically intensify by long-term year 2040.

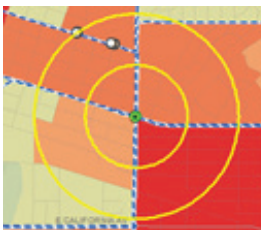
Niles and Mt. Vernon Avenue

Parcels immediately adjacent to the intersection of Niles Street and Mt Vernon Avenue are shown to exhibit suitable factors for a transit center. Existing site location provides access to GET and Kern Transit bus services and will be enhanced with multimodal access with planned future bicycle routes as identified in the City's Bicycle Transportation Plan. The demographics surrounding the site support the transit center as it is densely populated with transit dependent users. And while the land use surrounding the site is primarily residential and does not allow for mixed-use development, this dense population of transit dependent users allows this site to be an ideal location for a transit center and has potential for TOD.

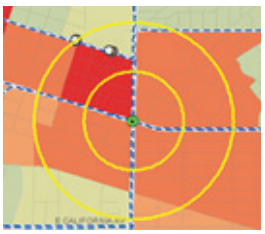
Population 2020



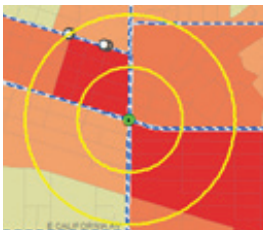
Population 2040



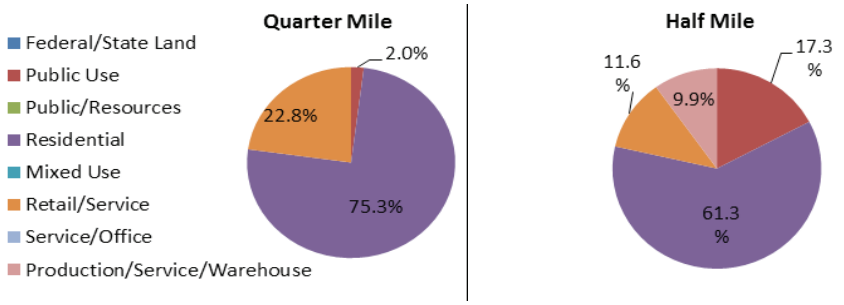
No Vehicle HH's



Youth Population



Land Use



Panama Lane and Highway 99

The Panama Lane and Highway 99 site location is found outside the center of Metropolitan Bakersfield and capitalizes on projected growth. Population density between the short-term and long-term years are expected to double with a moderately high amount of transit dependent users. Access is provided with GET and Kern Transit bus routes and access will be enhanced with proposed future bicycle routes as identified in the City's Bicycle Transportation Plan. The site location can improve upon existing accessibility for transit dependent users and assist with population growth between short and long-term years.

Mt. Vernon Avenue and Highway 178

South along Mount Vernon Avenue at the intersection of Highway 178 is a site location suitable for a transit center and potentially eligible for TOD. Regional access is provided with GET bus service and multimodal access is provided with existing and future bicycle routes. Adjacent population densities are anticipated to remain relatively consistent between short and long-term years, however, moderately high amounts of transit dependent populations are present to provide support for a transit center. The land uses for the site are primarily retail and residential with a mixture of public

use, and while mixed-use is not observed, the nearby East Hills Shopping Mall and the concentration of transit dependent populations enhance the site's potential to become eligible for TOD.

F Street and Golden State Avenue

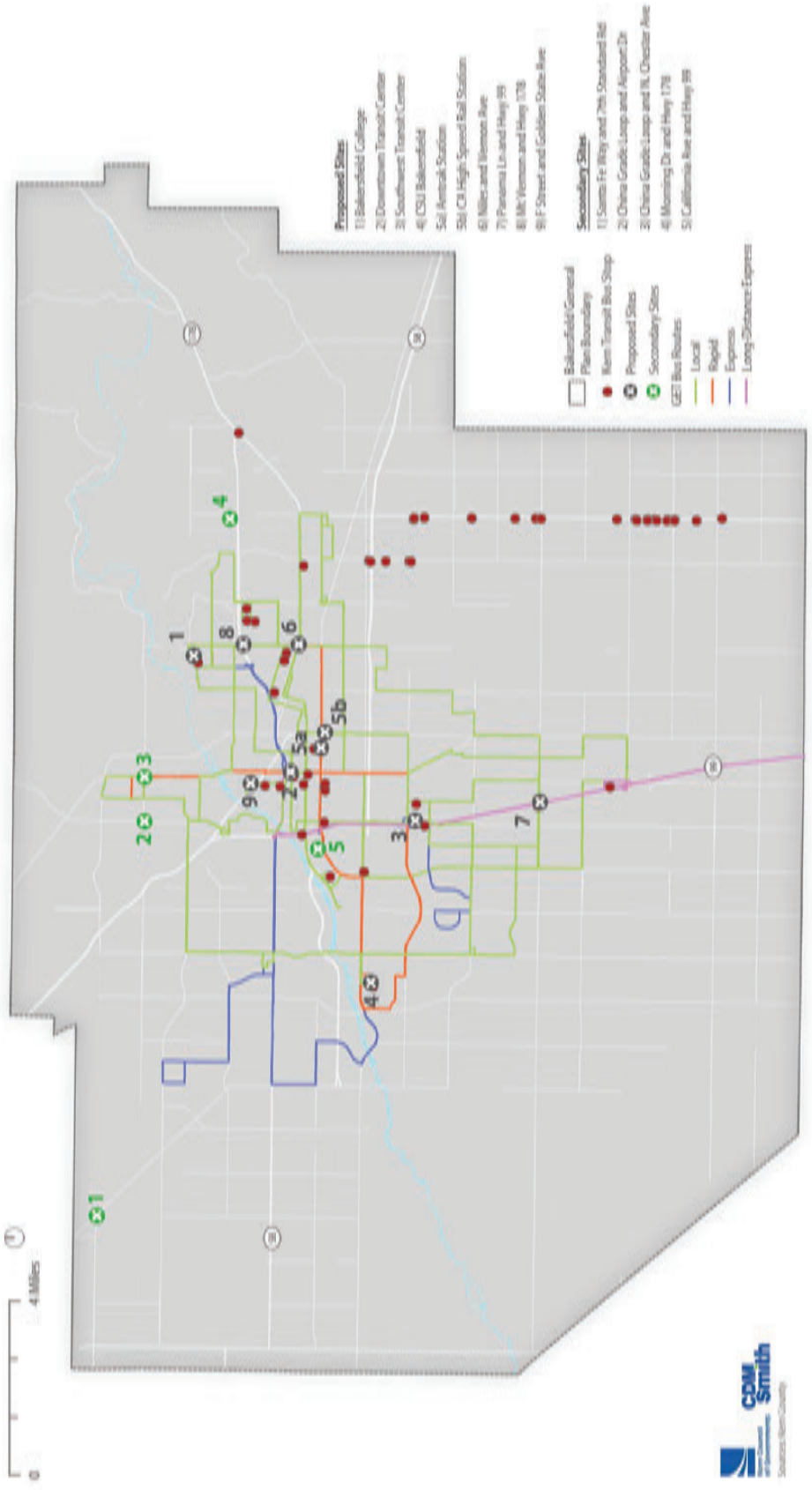
North of Downtown Bakersfield at the intersection of F Street and Golden State Avenue is a site location for a potential transit center. The surrounding area contains a high amount of retail/service land use within walking distance from the site providing support for a transit center. Access is provided with GET and Kern Transit and existing and planned future bicycle routes proposed in the City's Bicycle Transportation Plan. While there is not a not a high concentration of existing transit dependent populations, employment projections are anticipated to triple by long-term year 2040. This transit center can assist with the anticipated employment growth by providing multi-modal access to nearby future employment centers.

SECONDARY SITE LOCATIONS

Throughout the outreach process, which included general public outreach and meetings with stakeholders and steering committee members, additional secondary sites were identified. These locations were not included as recommended sites due to their limited use patterns, population, employment, or other transit dependent factors, reducing the site's ability to support a transit center or TOD site. However, should any of these factors unexpectedly increase; these sites have the potential to become ideal locations for a transit center or TOD site. A total of seven locations were identified as shown in **Figure 10** and include:

- Santa Fe Way and 7th Standard Road
- China Grade Loop at Airport Drive
- China Grade Loop at North Chester Avenue
- Morning Drive and Highway 178
- California Avenue and Highway 99

Figure 10 Secondary Site Locations



6

TOD MARKET STUDY ASSESSMENT

This section provides a summary of the Market Study Assessment conducted for the Bakersfield Transit Center Study to assess the TOD potential of the potential site locations. The objective of this study is to optimize the future location of the Transit Center by identifying areas within Kern County where land use and demographic characteristics will be supportive of transit ridership. Each of the potential site locations are located in Transit Priority Areas, as identified in the Sustainable Communities Strategy (SCS), ensuring the proposed site locations are aligned with the goals outlined in the SCS section of the 2014 Kern COG Regional Transportation Plan.

The Market Study evaluates three sections including projected market demand, zoning analysis, and TOD market feasibility. The complete market study assessment can be found in **Appendix F**.

ZONING ANALYSIS

The zoning analysis is an analysis of the quarter-mile and half-mile areas around station sites to determine the types of development that are currently permitted by the City and to assess the compatibility of those permitted uses with TOD (**Figure 11**). Each of the potential sites were evaluated for opportunities and constraints observed in the distribution and types of zoning and/or land uses, development densities associated with each use, existing street/block characteristics for level of walkability, and physical site conditions. Results of this analysis found that majority of the site locations currently allow low-density commercial and residential uses with high-density mixed-used development isolated to the downtown area; indicating sites such as the Downtown Transit Center Site and the Amtrak station have the highest TOD potential.

Figure 11 Zoning Distribution[3]

TOD MARKET FEASIBILITY

The TOD market feasibility section of the Market Study Assessment evaluated the potential site locations for their ability to accommodate a TOD-compatible building. These TOD-compatible buildings included townhomes, mid-rise apartments, low/mid-rise offices, and mixed use establishments with ground floor retail or medical offices. Site locations' ability to accommodate these TOD-compatible buildings were based on several factors including existing rents, vacancy rates, and capitalization rates. Total development costs per square foot (PSF), including construction, land, and other "soft" costs, were compared against the imputed sale price PSF. A total of three possible scores were assigned to each TOD-compatible building at each of the transit center site locations – feasible, marginal feasibility, and not feasible (**Table 7**).

3 The California High Speed Rail Station is currently under investigation by the Authority and is not considered a potential site location. The California Avenue and Hwy 99 site was determined to be a secondary site location and not considered a primary potential site location.

Table 7 TOD Market Feasibility Criteria

Score	Definition
Feasible	Total PSF development costs < imputed sale price PSF
Marginal Feasibility	Total PSF development costs < 120 percent of the imputed sale price PSF
Not Feasible	Total PSF development costs > imputed sale price PSF

The results from the market feasibility analysis (**Table 8**) generally show limited near-term opportunities for new construction of TOD-compatible building at the transit center site locations. Among the transit center sites, CSU Bakersfield, Southwest Transit Center, and the Panama Lane and Highway 99 sites exhibit markets which could support TOD development. While the Southwest Transit Center may be supportable of new housing and retail development, CSU Bakersfield offers the more supportive real estate markets with the university's ongoing expansions, low vacancy rates, and correspondingly higher property values. Finally, the Panama Lane and Highway 99 site displays a strong market for new retail development; over the long term, office-based employment growth is projected to generate sufficient retail demand for a major new shopping center in excess of 100,000 square feet.

Table 8 TOD Market Feasibility Results[4]

Site		TOD Building Typology					
		Townhome	Apartment	Medical Office	Office	Office	Retail Store
		3 Story	4-7 Story	1 Story	2-4 Story	5-10 Story	1 Story
1	**Bakersfield College**	NF	NF	NF	N/A	N/A	**M**
2	**Downtown Transit Center**	NF	NF	NF	NF	NF	NF
3	**Southwest Transit Center**	**M**	NF	N/A	NF	NF	**M**
4	**CSU-Bakersfield**	**M**	NF	**M**	**M**	**M**	NF
5	**Amtrak Station**	NF	NF	NF	NF	NF	NF
6	**Niles/Vernon Avenue**	NF	NF	N/A	NF	NF	NF
7	**Panama Lane/Hwy 99**	NF	NF	N/A	NF	NF	**F**
8	**Mt. Vernon Ave/Hwy 178**	NF	NF	N/A	N/A	N/A	NF

PROJECTED MARKET DEMAND

The projected market demand section of the Market Study consists of two components, the potential for new development located at the transit center site itself, and projected market demand for development through 2040 in a half-mile radius from the station site.

Many new transit centers are being designed to capitalize upon the level of foot traffic taking place at transit centers with the use of retail establishments. For the potential site locations, demand for retail space was determined based on 2013 boarding/alighting statistics from existing local and regional GET and Kern Transit bus routes, Amtrak rail and bus service, and future California HSR service. These ridership statistics were used to estimate the annual level of on-site passenger spending which can take place while waiting or transferring at a transit center. The results from this

4 *Notes: F – Feasible; NF – Not Feasible; M – Marginally Feasible; N/A – Market Data Unavailable*

analysis indicate all sites are capable of supporting retail formats which include carts and/or kiosks offering food and beverage items; only the Amtrak station indicated sufficient ridership levels to support higher amounts of retail space, such as food service and convenience shops.

As part of the projected market demand section, a TOD market area assessment evaluated the market demand from a half-mile radius from the station sites for residential, retail, and office development through 2040 (see **Table 9**). Residential development around the sites is anticipated to be relatively low, as the sites capture approximately 0.2 to 1.8 percent of the anticipated 107,311 new households between 2015 and 2040. While short term (2015 - 2020) retail development is limited to the Downtown Transit Center site as being the only site capable of supporting a shopping center, in the long-term (2020 and beyond) it is expanded to include the Southwest Transit Center, Amtrak Station, and Panama Lane and Hwy 99 in addition to the Downtown Transit Center site. Office development is anticipated to be isolated to the downtown area, limiting development to sites such as the Downtown Transit Center and Amtrak Station.

Table 9 Projected Market Demand (Half-Mile)

Site Location	Residential Demand (Units)			Retail Demand (sq. ft.)			Office Demand (sq. ft.)		
	Short Term	Long Term	Total	Short Term	Long Term	Total	Short Term	Long Term	Total
Bakersfield College	10	440	450	600	35,900	36,500	2,400	9,600	12,000
Downtown Transit Center	1,550	410	1,960	108,000	80,000	188,000	4,900	1,308,800	1,313,700
Southwest Transit Center	0	1,100	1,100	0	140,900	140,900	0	866,600	866,600
CSU Bakersfield	10	220	230	700	15,500	16,200	1,600	0	1,600
Amtrak Station	1,040	650	1,690	82,500	76,200	158,700	140,900	699,600	840,500
Niles and Vernon Avenue	10	330	340	200	37,800	38,000	900	20,500	21,400
Panama Lane and Hwy 99	130	730	860	15,500	88,900	104,400	10,000	45,900	55,900
Mt. Vernon Ave and Hwy 178	240	520	760	19,600	42,800	62,400	0	0	0

CUMULATIVE ASSESSMENT OF STATION SITE TOD POTENTIAL

Overall, the eight potential transit center site locations were ranked according to TOD potential ranging from "very low" to "high" (see **Table 10**) based on a cumulative assessment of the criteria used throughout the TOD Market Study Assessment, including:

- Opportunities and constraints observed in the distribution and types of zoned uses;
- Implied allowable development densities associated with each zoning and use classification;
- Existing street block characteristics/level of walkability;
- Other relevant physical site conditions;
- Near-term market feasibility; and
- Projected market demand for residential, retail, and office uses.

Table 10 Zoning Potential for TOD

TOD Potential	Site(s)
High	Downtown Transit Center
Medium-High	Amtrak Station
Medium	Southwest Transit Center CSU-Bakersfield
Medium-Low	Bakersfield College Niles/Vernon Avenue
Low	Mt Vernon Ave/Highway 178
Very Low	Panama Lane/Highway 99

Panama Lane/Highway 99 and Mt Vernon Ave/Highway 178 each score "Low" or "Very Low" based on their allowable densities, diversity of land uses, and projected future demand for new uses. The half-mile TOD market areas are also bisected by a major highway, limiting the potential walking and bicycle activity to and from the station.

While Bakersfield College and California State University Bakersfield both have low density zoning, they contain a diverse mix of uses on their respective campuses. Their student population constitutes a key target market for transit ridership, and both the college and university retain site control over a large portion of adjacent areas enabling more coordinated planning for future TOD; thereby justifying a "Medium-Low" to "Medium" ranking for TOD potential.

Niles/Vernon Ave is ranked "Medium-Low" as it has a sizable area of transit supportive zoning including medium-density housing and professional office space. The site also has a walkable street block configuration could lend itself to increased levels of future pedestrian activity. However, despite these advantages, the site location has low projected future growth indicating market demand may not be adequate for new uses associated with a TOD district.

The Southwest Transit Center received a "Medium" score largely based on its significant capture rate of future residential and employment growth. It has a significant amount of land already zoned

for medium-density residential within a one-half mile radius to accommodate the forecast demand for 1,100 additional housing units over the next 25 years. In addition, the scale of forecast development may be significant enough to create a vibrant TOD district at this location. But substantial challenges remain with physical constraints on pedestrian circulation caused by the location of Highway 99 and associated off-ramps.

The site locations ranked Medium-High and High for TOD potential, Downtown Transit Center and the Amtrak Station, are characterized by flexible zoning for high-density mixed use, high employment densities, and projected future growth. These sites offer the highest level of market potential for TOD districts in addition to walkable street block configurations that could lend itself to increased levels of pedestrian activity.

7

TRANSIT CENTER AND TOD EVALUATION

This section covers the criteria used to evaluate the elements needed for a successful transit center and/or TOD project. Several factors affect the success of a transit center and/or TOD project, an evaluation of nine distinct criteria was conducted for the eight potential transit center site locations. These criteria are broken into four categories including station location, station design, nonmotorized access, and Transit Oriented Development Potential. Sites meeting the criterion were awarded a score of 3 with higher and lower scores awarded based on their ability to meet or exceed the criterion. The full evaluation can be found in **Appendix G**.

EVALUATION CRITERIA

Station Location

The station location category evaluates how the site's location interacts with potential transit riders, their ability to access local and regional busses, and their ability to access statewide transit through the use of Amtrak. These are important to the station location as it measures the site ability to attract ridership to support the location and provide transit network connectivity at the local, regional, and statewide level.

Criteria #1: Ability to attract transit dependent riders

This criteria evaluates the site's ability to attract transit dependent riders based on nearby demographics. Transit dependent riders include youth, senior, low-income, minority, and households with no vehicles.

Criteria #2: Access to GET and Kern Transit buses

This criteria evaluates the site's ability to provide riders with access to the local and regional bus networks – GET and Kern Transit.

Criteria #3: Access to statewide transit

This criteria evaluates the site's ability to provide riders with statewide access through the Bakersfield Amtrak Station.

Station Design

The station design category evaluates the potential for each site location's ability to design a station with adequate lighting, aesthetics, safety, and parking. These are important to the station location as it measures the site's ability to provide a safe, inviting, and accessible station for potential riders.

Criteria #4: Lighting, Aesthetics, and Safety

This criteria evaluates the site's ability to accommodate good line of sight/"eyes on the street," lighting without negatively impacting the surrounding community, and allows for standard security equipment and options without the need for excess security resources, etc.

Criteria #5: Parking

This criteria evaluates the site's ability to provide on-site parking for existing site locations or the capacity to provide on-site parking for planned site locations.

Nonmotorized Access

The nonmotorized access category evaluates the site location as it pertains to pedestrian, bicycle, and multimodal access and circulation. This is an important criteria as it plays an important role in providing accessibility to all potential riders with pedestrian, bicycle, transit, and vehicle access.

Criteria #6: Pedestrian access and circulation

This criteria evaluates the site's ability to provide a pedestrian friendly environment including horizontal and vertical walking distances, quality of lighting along routes, directness of routes, and protection for crossing major roadways.

Criteria #7: Bicycle access and circulation

This criteria evaluates the site's ability to provide a bicycle friendly environment including classification of nearby bicycle routes, parking facilities, protection for crossing major roadways, quality of lighting along routes, and directness of routes.

Criteria #8: Multimodal access and circulation

This criteria evaluates the site's ability to provide multimodal access including pedestrian, bicycle, public transit, and vehicle access.

Transit Oriented Development Potential

The TOD development potential category evaluates the site location's ability to accommodate TOD development including adjacent land use and financial feasibility.

Criteria #9: Market feasibility

This criteria evaluates the site's adjacent land use and financial feasibility to accommodate TOD-compatible buildings such as mixed-use apartments, office, and retail buildings based on market data including existing rent levels, vacancy rates, etc.; the financial feasibility is based on findings from TOD Market Study Assessment (see previous section).

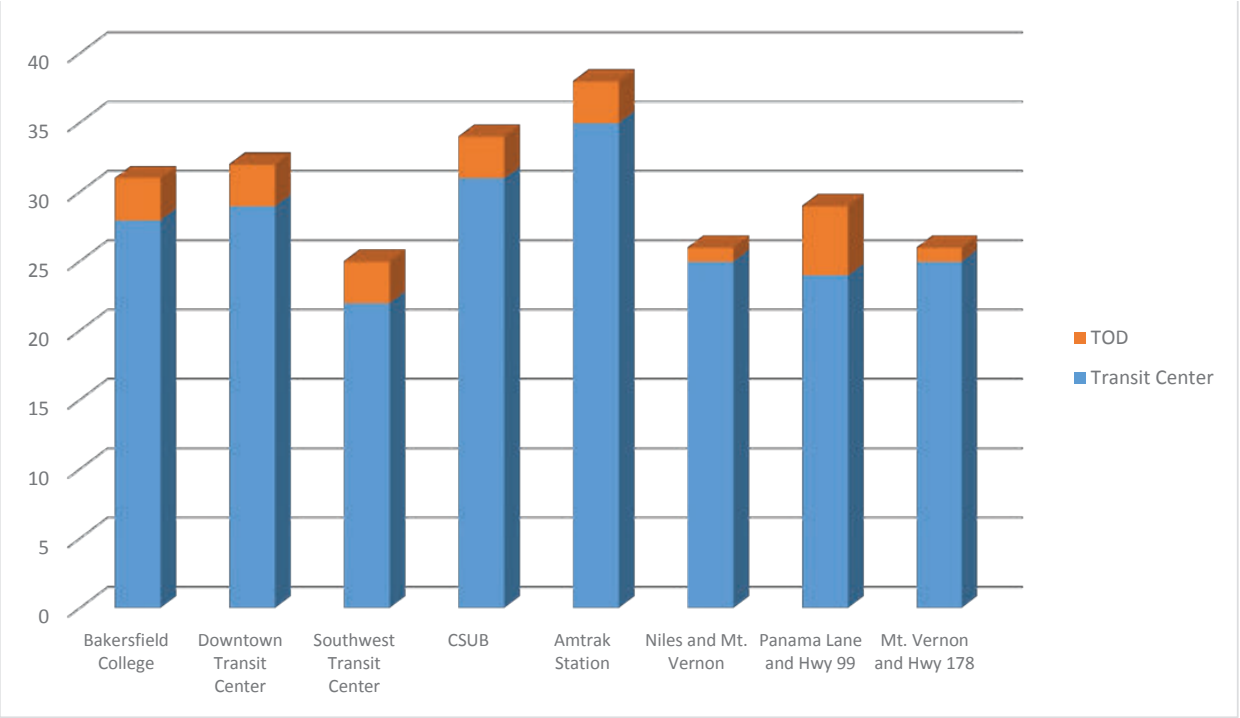
EVALUATION RESULTS

The results from the transit center and TOD evaluation are shown below in **Table 11** for each criteria. Among the eight transit center sites, the two sites located in the Downtown area (Downtown Transit Center and Amtrak Station) and the two colleges (Bakersfield College and CSU Bakersfield) were awarded the highest overall scores (shown in **Figure 12**); all other sites received scores under 30. This does not necessarily indicate that a transit center site can be implemented at these sites, rather they require fewer enhancements and/or investment to support a transit center. It should also be noted that these scores do not preclude these sites from being suitable transit center site locations.

Table 11 Evaluation Criteria Matrix

Evaluation Criterion		Transit Center Site Location							
		Bakersfield College	Downtown Transit Center	Southwest Transit Center	CSU Bakersfield	Amtrak Station	Niles and Mt. Vernon	Panama Lane and Hwy 99	Mt. Vernon and Hwy 178
Station Location Criteria									
1	Potential to attract transit dependent riders	2	3	3	2	3	4	3	3
2	Access to GET and Kern Transit Buses	4	5	3	3	4	4	4	3
3	Access to statewide transit	4	5	3	3	5	4	3	3
Subtotal		10	13	9	8	12	12	10	9
Station Design Criteria									
4	Lighting, Aesthetics and Safety	2	4	4	3	5	3	1	4
5	Parking	5	1	5	5	3	1	5	4
Subtotal		7	5	9	8	8	4	6	8
Nonmotorized Access Criteria									
6	Pedestrian access and circulation	3	5	1	5	5	3	1	2
7	Bicycle access and circulation	4	4	2	5	5	3	3	3
8	Multimodal access and circulation	4	2	1	5	5	3	4	3
Subtotal		11	11	4	15	15	9	8	8
Transit Center Total Score		**28**	**29**	**22**	**31**	**35**	**25**	**24**	**25**
Transit Oriented Development (TOD) Potential									
9	Market feasibility	3	3	3	3	3	1	5	1
Subtotal		3	3	3	3	3	1	5	1
Total		**31**	**32**	**25**	**34**	**38**	**26**	**29**	**26**

Figure 12 Transit Center Site Evaluation Matrix



8

CONCLUSION AND RECOMMENDATIONS

Through an iterative process including coordination with key stakeholders and members of the general public, a total of eight potential transit site locations were identified. These identified sites were based on several factors including existing planning documents, existing and planned transit routes, land uses and demographics of surrounding areas, and population and employment growth projections. Based on these factors, the eight transit site locations were selected for their ability to support a transit center. In addition, secondary sites were identified which currently do not exhibit optimum features to support a transit center, however, they are worth additional research should changes occur to affect the site's ability to effectively support a transit center.

Among the eight potential transit site locations identified, several would be suitable for short-term (2020) implementation while others would be more suitable for the long term horizon year of 2040.

Short-Term

The following sites are recommended for short-term implementation. These recommendations are based on being an existing location, already identified as a potential transit center in the Bakersfield LRTP, minimal improvements are needed for implementation, or high demographic growth in 2020 is anticipated. Although some of these sites were identified in the Bakersfield LRTP to be phased out in the interim years, these sites should be revisited for improvements and potential for TOD in the long-term.

Bakersfield College

The existing Bakersfield College transit center is currently identified in the LRTP as a site for fast and frequent transit service. This planned investment into the site allows this site to be an optimum site in the short-term as less additional investment would be needed for the implementation of an enhanced transit center. Investments at the site include enhancements to the site's design with improved lighting, walkways, bicycle parking facilities, etc.

Downtown Transit Center

The Downtown Transit Center is anticipated to be phased out in the mid and long-term years in the Bakersfield LRTP. However, the site presents opportunity for TOD development with a high amount of surrounding mixed-use land use, significantly dense population growth in the short-term, and access to a high amount of GET and Kern Transit bus services. Initial investment at the site can include site design enhancements such as improvements to safety with lighting, pedestrian and bicycle access, etc. These enhancements can assist in spurring TOD development at the site.

California State University Bakersfield

The California State University Bakersfield site location is a planned transit center identified in the Bakersfield LRTP. The identification of the site as a transit center in the LRTP in combination with the trip generation from the school itself provides support for a transit center with minimal investment; initial investment at the site can include enhancements to lighting, pedestrian and bicycle access, etc.

Amtrak Station

The Amtrak site location exhibits a high concentration of growth for employment and provides TOD opportunity with a mix of supporting land uses in the adjacent areas. Initial investment to the site in the short term can help support TOD development. Additionally, the site plays an important role in regional access for Bakersfield and is just north of a site location under consideration by the California High Speed Rail Authority.

Southwest Transit Center

The Southwest Transit Center site is anticipated to be phased out in the mid and long-term in the Bakersfield LRTP. However, the Southwest Transit Center site can be utilized for TOD potential. Immediately adjacent to the site is the Valley Plaza shopping mall, an existing destination. Investment to enhance the TOD potential at the site location can improve the site's ability to attract TOD development activity. Initial enhancements to the site can include lighting improvements and improvements to pedestrian and bicycle access as these are existing challenges for the site. It is also recommended to develop conceptual visualization of TOD to provide an example of the opportunities available at the site in the short-term.

Long-Term

The following sites are recommended for long-term implementation. These recommendations are based on their need for major or significant changes to occur such as land use designations, property acquisitions, or growth not occurring until 2035 or 2040. These sites would require more detailed studies evaluating the policies, funding, and/or infrastructure needs.

Panama Lane and Highway 99

The Panama Lane and Highway 99 site location has the opportunity to capitalize on projected growth in the long-term. The site exhibits significant growth in population density by the long-term year 2040; population density is anticipated to double between the short-term and long-term years. A revisit to this site would be worthwhile again in the future to reevaluate the site's near-term potential as it is dependent upon population growth.

Mt. Vernon Avenue and Highway 178

The Mt. Vernon Avenue and Highway 178 site location is adjacent to a major highway, retail shopping, and a high school. The site is currently not a location of high activity and presents challenges for pedestrian and bicycle station access. However, within a half-mile distance from the site, high amounts of transit dependent populations are present. The surrounding demographics can support a transit center but further study and investment would be needed to optimize the site's potential.

Niles and Mt. Vernon Avenue

The Niles and Mt. Vernon Avenue site location provides opportunity for TOD in the long-term. The site is densely populated with transit dependent population to support a transit center and TOD. It is also recommended to develop conceptual visualization of TOD to provide an example of the TOD opportunities available at the site for the long-term year 2040. However, it should be noted that property acquisition may be required for the implementation of the site as no vacant parcels are available at the location. As a result, this site should be reevaluated at a later time for its ability to be implemented.

Next Steps

To build upon the work conducted under this study and in preparation for the future California High Speed Rail system, a future study using similar methodology and analysis of HSR station sites should be performed as a separate study or as a supplemental to this study.