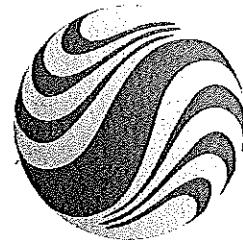
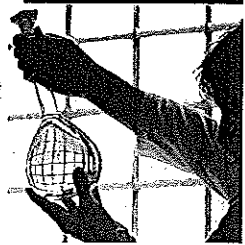


**Critical Issues Review / Feasibility
Report**

**Bakersfield College - South Center
Campus**

November 2007



Stantec

**Critical Issues Review / Feasibility
Report**

**Bakersfield College - South Center
Campus**

November 2007

Prepared For:
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Stantec Project No: 184100508

Executive Summary

This document evaluates critical project development issues for permitting and development of the Kern Community College District's (KCCD) proposed Bakersfield College South Center Campus Project, located in Kern County approximately four miles south of the City of Bakersfield, California. KCCD proposes developing a college campus within a proposed specific plan area by Bolthouse Properties LLC, which passes through a site area that encompasses, commercial, residential, agricultural, recreational, public open spaces, and campus land uses. The federal regulatory agencies that may have jurisdiction over this project include the U.S. Environmental Protection Agency, U.S. Department of the Army Corps of Engineers, and U.S. Fish and Wildlife Service. State and local regulatory agencies involved in the permitting process include the California Department of Transportation, California Regional Water Quality Control Board, California Department of Fish and Game, San Joaquin Valley Air Pollution Control District, Kern County Local Agency Formation Commission, City of Bakersfield, and the County of Kern. This study discusses project development issues that relate to a variety of disciplines. The project site is suitable for the KCCD's proposed project and is not likely to pose potential fatal flaws. Some development issues that will require special attention during the project design, permitting, and licensing process are identified in this study. Key findings are as follows:

Air Quality

- The proposed project will take place within the San Joaquin Valley Air Pollution Control District (SJVAPCD) jurisdiction. Emissions from the various project elements would be subject to the rules and regulations of the SJVAPCD depending upon the type of emissions activities and development components. No impacts associated with air quality are deemed a fatal flaw.
- Three large dairy operations are located within close proximity to the proposed project site; one (1) mile to the northeast and two others approximately 1.5 miles to the west. Dairy operations can generate harmful air pollutants and objectionable odors. This location is particularly vulnerable to nuisance odors due to its close proximity to nearby dairies. The Air Quality section of this report provides an odor model to assess dairy air quality impacts.

Agricultural Resources

- All parcels which make up the proposed project site are under Williamson Act Agricultural Preserve Land Use Contracts and the parcels fronting Bear Mountain Boulevard on in Non-Renewal Status.
- To make the necessary finding to allow public acquisition of Williamson Act contracted land the KCCD Board of Trustees must document that there is no other location that is not under contract and reasonably feasible for the propose Bakersfield College South Center Campus (Government Code Section 51292(b)).

Biological Resources

- Because of agricultural practices and highway commercial development the project site has diminished areas that can provide suitable habitat for endangered species.

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CRITICAL ISSUES REVIEW / FEASIBILITY REPORT BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS EXECUTIVE SUMMARY November 2007

- The project may encounter endangered plants or wildlife along its border with the Kern Island Canal (Western Burrowing Owl), leading to mitigation costs.
- Potential habitat exists in the project area for federal and/or state-listed animal and plant species. Western Burrowing Owl dens were observed on field visit by Stantec Staff in September of 2007. Prior to construction activity a qualified biologist should be consulted to ensure no impact on Western Burrowing Owl's.
- Location of these species during survey would initiate processes to ensure compliance with federal and state endangered species acts.

Cultural Resources

- The majority of the project site is not located in an area of high sensitivity for cultural resources and is highly disturbed by agricultural practices. See Appendix "B" for the Cultural Resources Records Search results.

Geology and Geologic Hazards

- The project site does not lie within an Alquist-Priolo earthquake fault special studies zone.
- Current construction and siting standards will mitigate seismic risks associated with the proposed project site.
- A detailed geotechnical survey will be completed prior to construction of the proposed project, and grading, soil compaction, and structural design will be implemented in accordance with the recommendations of the geotechnical report. No issues are anticipated regarding soils of the project site.

Paleontological Resources

- No adverse impacts to paleontological resources are expected.

Hazards and Hazardous Materials

- There is no airspace hazards associated with this project site.
- No Flood hazards are identified for the project site.
- Agricultural operations may have resulted in contamination of the soil and/or groundwater. Phase I Environmental Site Assessment should be performed to protect KCCD from any future environmentally related liability.
- Nearby dairy operations may require new levels of fly management to control vectors and fly nuisance at the proposed campus site. Fly issues are a critical issue for developing a campus on the Bolthouse Properties site which will require future study and cooperation with nearby dairy operations to ensure nuisance flies can be controlled to a level of acceptance.

Land Use

- City Staff indicated that the proposed use would not be unreasonably incompatible with or injurious to surrounding properties, or detrimental to the health and general welfare of persons residing or working in the vicinity.
- County Staff and City Staff have provided favorable consideration of the proposed Campus site; however, they hold reservation to amend the Intensive Agricultural General Plan Designation beyond one-mile from the existing Sphere of Influence boundary established at Bear Mountain Boulevard (State Route 223).

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- KCCD and Bolthouse Properties LLC will need to work with the City, County, and the Kern County Local Agency Formation Commission (LAFCO) to ensure the proposed project falls within the City of Bakersfield Sphere of Influence, to allow a Metropolitan Bakersfield General Plan Amendment or future annexation to the City of Bakersfield.

Visual Resources

- A community college campus and surrounding village development on this site would not cause significant visual impacts that could not be mitigated. Although concerns about views from nearby residents may arise, it would be difficult to justify a finding of significant impact under CEQA from any of these viewing areas.
- None of the views in the project area would be classified as scenic vistas.
- The project site is not located within the viewshed of a scenic highway.
- Light and glare impacts will increase but can be mitigated by following standard requirements for lighting such as directional shields, and limiting the number of lights.

Noise

- By conducting a detailed noise study of the area, consulting further with City and County Staff, and designing the project with appropriate noise control measures, noise should not be a limiting factor for successful project development.

Water Service

- There are no fatal flaws concerning water service associated with the proposed project.
- At maximum load, the water supply system has the capacity of providing for projected peak usage.
- The project site does not currently have water conveyance infrastructure connected to the City water supply system. There is an adequate water line located beneath Taft Highway and South "H" Street approximately 4 miles north of the project site.
- Based on projected Water Demand from proposed residential, college campus, and commercial land uses, the proposed project will demand approximately 349,438 gallons per day (gpd) of water. The required infrastructure for connecting the project site to the city (pipeline, pump station, and storage tank) is estimated to cost in the range between \$1,600,000.00 and \$2,100,000.00.

Sewer Service

- The quality or quantity of wastewater from this project should not pose a concern for project development.
- There are no fatal flaws concerning sewer service associated with the proposed Project.
- The required infrastructure for connecting the project site to the city (pipeline, pump station, and storage tank) would run approximately \$1,000,000.00 to \$1,200,000.00.

Storm Drainage

- Stormwater Quality. The proposed site will need to comply with the City's or County's Storm Water Management Plan (SWMP) with respect to both short term (during construction) and long term practices to protect stormwater quality.

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CRITICAL ISSUES REVIEW / FEASIBILITY REPORT BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS EXECUTIVE SUMMARY November 2007

- **Stormwater Conveyance.** The onsite storm drainage system will need to be designed to convey the 2-year storm with no surcharge at the upgradient portion of the site. However, it is recommended that a 10-year storm event be used as the design storm for storm drainage conveyance.
- **Stormwater Detention.** An onsite detention pond will be required to detain the 100-year, 48-hour storm event. Constraints mapping provided by Kern County indicates that the general depth to groundwater in the area is possibly as shallow as 15 ft. Therefore, it is unlikely that the detention basin design will be limited by groundwater. Detention basin can be as large as ten acres depending on the final urban pattern and the amount of impervious surface. Detention can be incorporated into the urban design as linear water features of the landscape.
- **Kern Island Canal Outfall.** This option would consist of constructing a detention basin, pump station, discharge pipe, and outfall structure. This option would require regulatory permitting through the Department of Fish and Game, the US Army Corps of Engineers, and the Regional Water Quality Control Board (RWQCB). The new outfall option would require not only additional money (approximately \$500,000 for a new pump station), but also additional time to allow for permitting. Permitting a new drainage outfall to the Kern Island Canal will require adherence to recent guidelines set out by the RWQCB to meet challenges of sustainable drainage. Sustainable drainage systems involve a change in our way of managing urban runoff from solely looking at volume control to an integrated multi-disciplinary approach which addresses water quality, water quantity, amenity and habitat.

Annexation

- Annexation of the project site is officially started by City of Bakersfield adopting a resolution initiating annexation and adopting pre-zoning and general plan amendment for annexation territory. Pre-zoning and annexation of property are considered projects under the California Environmental Quality Act (CEQA) and will require appropriate CEQA documentation.
- Along with the initiating resolution, pre-zoning determination and CEQA review, City of Bakersfield will be required to submit an application for annexation to LAFCO.
- Project site is located outside the City of Bakersfield's and Lamont PUD's sphere of influences designated by the Kern County Local Agency Formation Commission (LAFCO). Properties annexed to the City of Bakersfield or Lamont PUD are required to be within Bakersfield's or Lamont PUD's sphere of influence.
- Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 requires LAFCO review municipal services before updating sphere of influence for City of Bakersfield or Lamont PUD. KCCD and Bolthouse Properties LLC would incur costs to prepare a Municipal Services Review Report to support the expanded sphere of influence boundaries to accommodate the annexations either to the City of Bakersfield or Lamont PUD.

Transportation

- Ingress/egress from State Highway 223 will require Caltrans Encroachment Permit.
- Roadway improvements on SR-223 will require construction of additional travel lanes, bike lanes, curbs, gutters, and sidewalks for the entire frontage of Bear Mountain Boulevard of approximately 3,000. Estimated costs associated with the required roadway improvements are approximately \$1,100,000.00 depending on final traffic studies, CEQA documentation and improvements required.

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**CRITICAL ISSUES REVIEW / FEASIBILITY REPORT
BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS
EXECUTIVE SUMMARY
November 2007**

- Intersection signalization may be required for new intersections created by the proposed Bolthouse Properties, LLC Specific Plan and College Campus Project, which may attribute costs to the SJDCCD between \$500,000.00 and \$750,000.00.

Utilities

- No critical issues identified concerning utilities services.

Table of Contents

EXECUTIVE SUMMARY E.1

1.0 INTRODUCTION1.1

2.0 PROJECT DESCRIPTION.....2.1

2.1 PROJECT NAME.....2.1

2.2 CAMPUS OVERVIEW2.1

2.3 DISCRETIONARY ACTIONS.....2.1

2.4 REQUIRED PERMITS AND APPROVAL.....2.3

2.5 PROJECT SITE2.3

3.0 DISCIPLINARY DEVELOPMENT ISSUES.....3.1

3.1 AIR QUALITY3.1

3.1.1 Air Quality Standards and Attainment Status.....3.1

3.1.2 Federal Clean Air Act.....3.2

3.1.3 California Clean Air Act of 20063.2

3.1.4 AB 32 Global Warming Solutions Act of 2006.....3.3

3.1.5 Attainment Status Designations3.3

3.1.6 County of Kern General Plan Goal and Policies3.4

3.1.7 Metropolitan Bakersfield General Plan Goal and Policies.....3.5

3.1.8 Regional Air Quality.....3.7

3.1.9 Local Climate and Air Quality3.7

3.1.10 Air Quality Issues Associated with Dairies Surrounding the Project Site.....3.8

3.1.11 Air Quality Critical Issues3.12

3.2 AGRICULTURAL RESOURCES3.13

3.2.1 Williamson Act Contract3.13

3.2.2 Farmland Mapping and Monitoring Program3.15

3.2.3 Kern County Right-to-Farm Ordinance (County Code Chapter 8.56).....3.15

3.2.4 Agricultural Critical Issues3.16

3.3 BIOLOGICAL RESOURCES.....3.17

3.3.1 Data Collection Methods3.18

3.3.2 Threatened, Endangered, and Sensitive Species.....3.18

3.3.3 Wetlands3.18

3.3.4 Metropolitan Bakersfield General Plan3.19

3.3.5 Kern County General Plan.....3.20

3.3.6 Metropolitan Bakersfield Habitat Conservation Plan (MBHCP).....3.22

3.3.7 Biological Critical Issues.....3.23

3.4 CULTURAL RESOURCES3.23

3.4.1 Site Archaeology3.23

3.4.2 Archival Research Methods.....3.24

3.4.3 Cultural Resources Critical Issues.....3.24

3.5 GEOLOGY AND GEOLOGIC HAZARDS.....3.25

**CRITICAL ISSUES REVIEW / FEASIBILITY REPORT
 BAKERSFIELD COLLEGE – SOUTHWEST CENTER CAMPUS
 November 2007**

3.5.1	Site Geology and Geologic Setting.....	3.25
3.5.2	Geology and Geologic Hazards Critical Issues.....	3.26
3.6	PALEONTOLOGICAL RESOURCES.....	3.26
3.6.1	Paleontological Resources.....	3.26
3.6.2	Paleontological Critical Issues.....	3.26
3.7	HAZARDS AND HAZARDOUS MATERIALS.....	3.26
3.7.1	Agricultural Operations.....	3.27
3.7.2	Navigable Airspace Hazards.....	3.27
3.7.3	FEMA Flood Zones.....	3.27
3.7.4	Nearby Dairy Operations and Vector/Fly Issues.....	3.27
3.7.5	Hazards and Hazardous Materials Critical Issues.....	3.29
3.8	LAND USE.....	3.29
3.8.1	Regulatory Context.....	3.30
3.8.2	Metropolitan Bakersfield General Plan.....	3.30
3.8.3	Zoning Classifications.....	3.31
3.8.4	Land Use Critical Issues.....	3.31
3.9	VISUAL RESOURCES.....	3.32
3.9.1	Significance Criteria.....	3.32
3.9.2	Visual Quality.....	3.32
3.9.3	Viewer Sensitivity and Visibility.....	3.33
3.9.4	Consistency with Plans, Policies and Regulation.....	3.33
3.9.5	Visual Resources Critical Issues.....	3.33
3.10	NOISE.....	3.34
3.10.1	Project Noise Setting.....	3.34
3.10.2	Applicable Noise Standards.....	3.34
3.10.3	Anticipated Project Noise Levels and Mitigation Measures.....	3.35
3.10.4	Noise Critical Issues.....	3.35
3.11	WATER SERVICE.....	3.35
3.11.1	General System Expansion.....	3.35
3.11.2	Water System.....	3.36
3.11.3	Water Service Critical Issues.....	3.36
3.12	SEWER SERVICE.....	3.37
3.12.1	Sewer Service Critical Issues.....	3.37
3.13	STORM DRAINAGE.....	3.39
3.13.1	Existing Drainage Pattern.....	3.40
3.13.2	Storm Drainage Discharge Options.....	3.40
3.13.3	Storm Drainage Critical Issues.....	3.40
3.14	ANNEXATION.....	3.41
3.14.1	Kern County Local Agency Formation Commission (LAFCO).....	3.41
3.14.2	Sphere of Influence (SOI).....	3.42
3.14.3	Adoption and Amendment Policies for City Spheres of Influence.....	3.42
3.14.4	Annexation Critical Issues.....	3.43
3.15	TRANSPORTATION.....	3.43
3.15.1	Planned Regional Transportation Improvements.....	3.43
3.15.2	Kern Council of Governments (KERNCOG) 2007 Regional Transportation Plan.....	3.44

**CRITICAL ISSUES REVIEW / FEASIBILITY REPORT
 BAKERSFIELD COLLEGE – SOUTHWEST CENTER CAMPUS
 November 2007**

3.15.3	Metropolitan Traffic Impact Fee	3.44
3.15.4	Regional Congestion Management Program	3.44
3.15.5	Design Standards.....	3.44
3.15.6	Caltrans Encroachment Permit.....	3.45
3.15.7	State Highway 223 and Required Transportation Improvements.....	3.45
3.15.8	State Highway 223 and Transportation Critical Issues.....	3.45
3.16	UTILITIES.....	3.46
3.16.1	Solid Waste.....	3.46
3.16.2	Telecommunications and Cable	3.47
3.16.3	Electrical Service.....	3.47
3.16.4	Utilities Critical Issues	3.47
<hr/>		
4.0	REFERENCES SITED	4.1
5.0	LIST OF PREPARERS	5.1

TABLES

Table 2-1	Compliance and Review Requirements.....	2.3
Table 2-2	Bakersfield College South Center Campus Parcel Information.....	2.4
Table 3-1	Air Quality Standards	3.1
Table 3-2	Standards San Joaquin Valley Attainment Status	3.4
Table 3-3	Properties and Effects of Gas Emitted from Dairy Production	3.8
Table 3-4	Total Odor Emission Factor Worksheet for Richmar Farms.....	3.11
Table 3-5	Total Odor Emission Factor Worksheet for R& J and Bear Mtn. Dairies.....	3.11
Table 3-6	Water Demand.....	3.37
Table 3-7	Peaking.....	3.37
Table 3-8	Project Wastewater Demand.....	3.38
Table 3-9	2007 KERNCOG RTP Project List	3.44

FIGURES (FOLLOWS THE PAGE)

Figure 1-1	Project Vicinity Map.....	1.1
Figure 1-2	Conceptual Land Use Map.....	1.1
Figure 2-1	Bakersfield City Limits/Sphere of Influence Map	2.3
Figure 2-2	Assessor Map	2.4
Figure 3-1	Dairy Impact Map.....	3.8
Figure 3-2	Williamson Act Land Use Contract Map	3.13

1.0 Introduction

Kern Community College District (KCCD) is considering constructing and operating a campus in Southern Bakersfield, California. Selecting the most appropriate site for a Campus is an important consideration for a district and a community. The location, size, and shape of a Campus site can materially affect the educational program and opportunities for students. Because program needs differ, districts must carefully develop selection criteria with the requirements of the campus mission in mind. Site selection must be based not only on current needs but also on projected needs and trends in community college environment.

The objective of KCCD is to provide a campus environment that nurtures creativity and intellectual curiosity. The Bakersfield College South Center Campus will serve the district by providing a high-quality learning experience which prepares students for transfer, technical and public service careers, lifelong learning and participation in a diverse global society.

Public Private Ventures Inc. (PPV) has worked in collaboration with the KCCD Board and the participating public to review potential development sites for the Bakersfield College South Center Campus. A series of meetings was held evolving the Board of Trustees, and property owners to identify opportunities for locating the Bakersfield College South Center Campus. Bolthouse Properties LLC in cooperation with KCCD has offered to sell and donate a portion of their property holdings for the Bakersfield College South Center Campus located south of Bear Mountain Boulevard and west of State Route 99. (See Figure 1-1 Project Vicinity Map).

The Bakersfield College South Center Campus would be part of a specific plan which would be developed for the entire Bolthouse Properties LLC holdings. Figure 1-2 depicts a conceptual land use plan which incorporates a 120 acre campus. KCCD is evaluating this project site to develop a campus which can meet the following objectives:

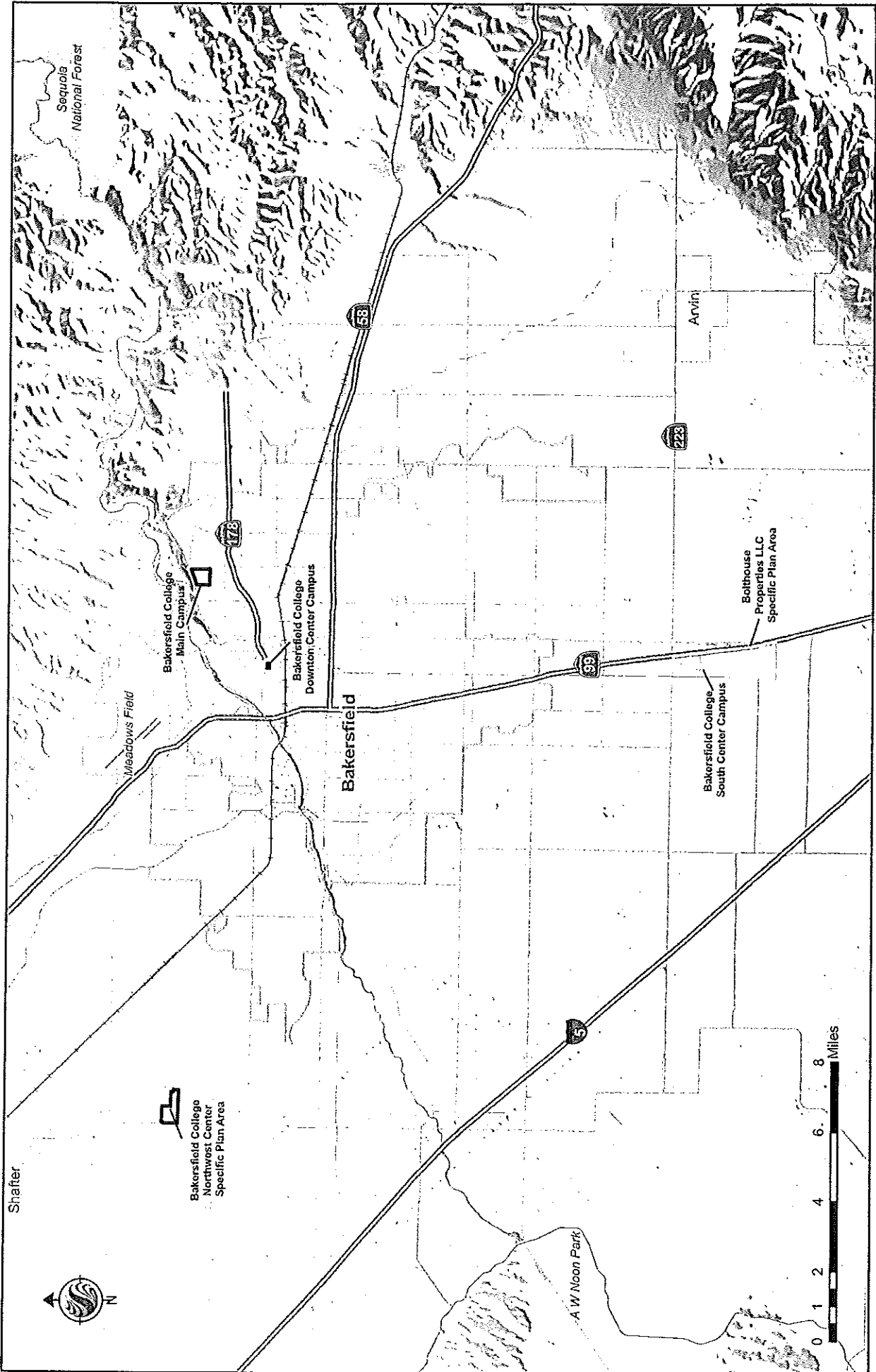
- Service student needs of southern metropolitan Bakersfield and Kern County.
- Coordinate and share infrastructure support services with the City of Bakersfield or Special Districts.
- Strong campus identity.
- Sustainable development.
- Campus is integrated into master planned community
- Unified planning, design and development standards
- Promote collaborative ventures – public shared facilities; joint funding; developer-build campus & related facilities; and integrated programs

**CRITICAL ISSUES REVIEW / FEASIBILITY REPORT
BAKERSFIELD COLLEGE – SOUTHWEST CENTER CAMPUS
November 2007**

Figure 3-3	FMMP Farmland Designation Map.....	3.15
Figure 3-4	CNDDB Map	3.18
Figure 3-5	Soil Survey Map	3.25
Figure 3-6	Fault Zone Map.....	3.25
Figure 3-7	FEMA Flood Zone Map	3.27
Figure 3-8	Dairies/Cattle Yard Map	3.28
Figure 3-9	General Plan Map	3.30
Figure 3-10	Bakersfield Water Service Area Map.....	3.35
Figure 3-11	Sewer Collection Lines Map.....	3.37
Figure 3-12	Drainage Map	3.40
Figure 3-13	Existing and Projected City Limits	3.41
Figure 3-14	Bakersfield and Lamont PUD Existing Sphere of Influence	3.42
Figure 3-15	Regional Transportation Improvements Map.....	3.43

APPENDIX “A”: PHOTO LOG

APPENDIX “B”: CULTURAL RESOURCES RECORDS SEARCH



Client/Project
 KERN COMMUNITY
 COLLEGE DISTRICT

Figure No. **1-1**

Title

**BOLTHOUSE PROP LLC
 BAKERSFIELD COLLEGE
 SOUTH CENTER CAMPUS
 PROJECT VICINITY MAP**
 NOVEMBER 2007

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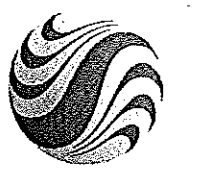
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← INITIAL PHASE → FUTURE PHASE FUTURE PHASE FUTURE PHASE


CONCEPTUAL LAND USE PLAN
 PEDESTRIAN CROSSING (double-headed arrow)
 PEDESTRIAN/BICYCLE ACCESS (arrow with dashed line)
 LINE OF PHASE (solid line)

Source: KCCD of Chris Addison



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Client/Project
 KERN COMMUNITY COLLEGE DISTRICT

Figure No.
1-2

Title
**BOLHOUSE PROP LLC
 BAKERSFIELD COLLEGE
 SOUTH CENTER CAMPUS
 CONCEPTUAL LAND USE MAP
 NOVEMBER 2007**

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CRITICAL ISSUES REVIEW / FEASIBILITY REPORT BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS

Introduction
November 2007

This report evaluates critical permitting and development issues surrounding this project. It also evaluates the feasibility of annexation to the City of Bakersfield to obtain urban infrastructure and services to support the proposed project. This report discusses project development issues that relate to a variety of disciplines. These include air resources, agricultural resources, biological resources, cultural resources, environmental justice, geology and geologic hazards, paleontological resources, hazards and hazardous materials, land use, noise, visual resources, water service, sewer service, storm drainage, transportation, flooding, utilities, and annexation issues. This report has been prepared to identify any potential critical permitting or development issues, and identify project development issues that will require special attention during the project design, engineering, permitting, and construction process.

The report is organized into major technical sections as follows:

- Section 2.0 identifies probable project facilities considered in the feasibility study
- Section 3.0 examines the site for each discipline in terms of site characteristics and relevant issues for development. Conclusions regarding critical issues or fatal flaws for the development of a campus at this site is provided.
- Section 4.0 provides references for developing this report
- Section 5.0 provides the list of preparers for this report

Since this study was performed in advance of any project design, experience-based assumptions have been made as to project components, land requirements, emissions and regulatory requirements.

2.0 Project Description

2.1 PROJECT NAME

Kern Community College District – Bolthouse Properties, LLC: Bakersfield College South Center Campus

2.2 CAMPUS OVERVIEW

Bolthouse Properties, LLC, Public Private Ventures, Inc. (PPV) and the Kern Community College District (KCCD) propose to develop a community college campus and master planned community on the Bolthouse Properties LLC holdings. The campus would service the future population of southern Metropolitan Bakersfield. This extension campus is an integral part of the District's effort to enhance student access to a college education. The proposed new campus will be approximately 120 acres, and will be able to accommodate more students and allow the KCCD to provide more educational opportunities to the residents of South Bakersfield and surrounding communities.

The Bolthouse Properties, LLC, PPV and KCCD planning process will help develop the necessary partnerships with local governments and private sector companies to translate the goals of the KCCD into a program of action. A key aspect of the proposed project will be incremental implementation through a projected and agreed upon time frame between Kern County, City of Bakersfield, Bolthouse Properties, LLC, PPV, private sector companies and KCCD. The specific plan will be implemented in phases involving the development of each aspect of the community in a timely fashion. The long-range plan creates an urban village focused on the college campus, which passes through a site area that encompasses commercial, residential, recreational, public open spaces, and campus land uses. Figure 1-2 Conceptual Land Use Plan depicts preliminary land uses and campus.

2.3 DISCRETIONARY ACTIONS

The proposed Bakersfield College South Center Campus and surrounding Specific Plan can either be developed in Kern County or be annexed into the City of Bakersfield depending on the timing and development patterns that take place north of the proposed campus site and the City of Bakersfield. Depending on the annexation question the development of the proposed Specific Plan and campus would require a series of discretionary actions as described below:

Approval of Annexation Proposal

The project area is located in an unincorporated area of Kern County, approximately four miles south of the Bakersfield jurisdictional boundary. The area is also not within the City of Bakersfield's Sphere of Influence (SOI), and would require Kern County Local Agency Formation Commission (LAFCO) amend the SOI to include the proposed project site within the City's SOI. Once the SOI has been amended by LAFCO annexation by the City of Bakersfield could proceed. Annexation would require consideration and approval from the Kern County LAFCO following the City's approval of the development proposal.

In addition, if the project was not annexed into the City of Bakersfield for infrastructure services the project site might consider annexation into the Lamont Public Utility District (LPUD) for water and sewer

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CRITICAL ISSUES REVIEW / FEASIBILITY REPORT BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS

Project Description
November 2007

services. LPUD is also located approximately four miles from the project site and would require the LPUD Sphere of influence be amended to allow annexation of the project site into the LPUD.

General Plan Amendments and Prezoning

Currently, the project area is not designated in the Metropolitan Bakersfield General Plan which would require the General Plan be amended to include the proposed project site. Metropolitan Bakersfield General Plan designations such as "Highway Commercial (HC)", "Mixed Use (MUC)", "General Commercial (GC)", "High Density Residential (HR)", "High Medium Density Residential (HMR)", "Low Density Residential (LMR/LR)", "Public and Private Schools (PS)", "Open Space Parks (OS-P)" would need to be applied to the proposed project area in the City's unincorporated Sphere of Influence. As part of the proposed project, Bolthouse Properties and KCCD would seek to apply the General Plan designations which best carry out the final fully delineated urban design concept. Twenty parcels of land between the proposed project site and the current city limits would also require annexation to prevent the proposed project from being an island within the County. Concurrent with approval of the General Plan Amendment, the City Council also needs to consider a zoning map amendment. Bolthouse Properties and KCCD would request zoning classifications that would best carrying out the objectives of the Bakersfield College South Center Campus Project and the Specific Plan. Prezoning would become final upon approval of the annexation application.

Proceeding in Kern County without Annexation

If the decision was made to pursue development of the project site within the county, a Specific Plan would be required. The Specific Plan would have to be consistent with the Kern County General Plan goals, policies and implementation measures. The Specific Plan would be prepared pursuant to the California Government Code Section 65450 et. seq. Discussion of the following seven elements would be required in the Specific Plan in accordance to Kern County General Plan requirements:

1. Land Use
2. Circulation
3. Housing
4. Conservation
5. Open Space
6. Noise
7. Safety

The Specific Plan would be adopted by resolution by the County Board of Supervisors. After adoption of the Specific Plan the Board of Supervisors would adopt, by ordinance, the necessary zoning changes proposed in the specific plan (County of Kern Code 19.112).

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CRITICAL ISSUES REVIEW / FEASIBILITY REPORT BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS

Project Description
November 2007

2.4 REQUIRED PERMITS AND APPROVAL

A number of permits and approvals, including the discretionary actions, would be required before the development of the proposed project could proceed. If annexation to the city was the course of action then the City of Bakersfield would be responsible for the majority of approvals required for development. Other agencies also may have some authority related to the project and its approvals. A list of the required permits and approvals that may be required by the City and other agencies is provided in Table 2-1.

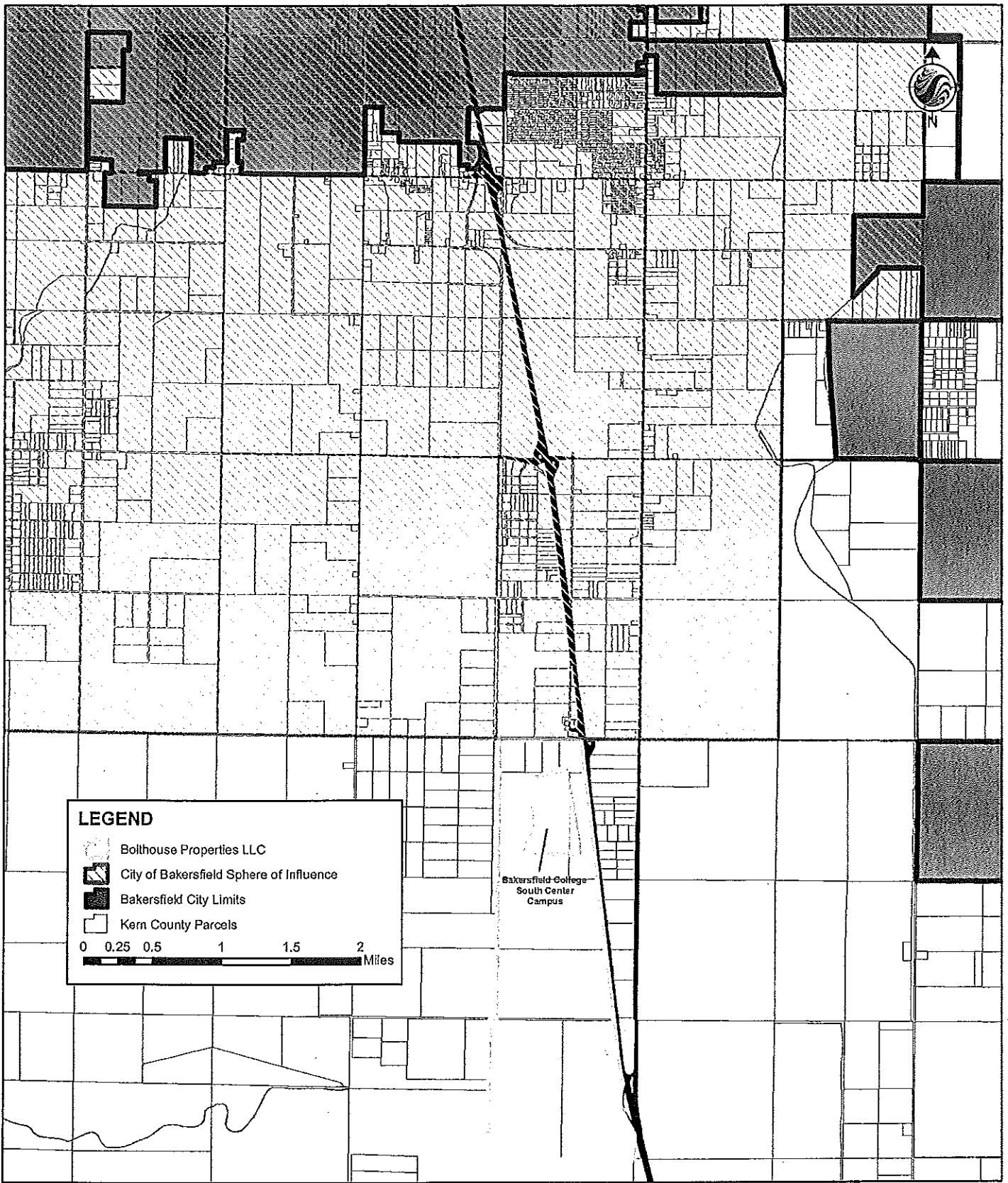
Table 2-1 Compliance and Review Requirements Applicable to the Proposed Project

Agency	Permit/Approval
City of Bakersfield	Annexation Application General Plan Amendments Zoning and Rezoning Specific Plan / Development Plans Vesting Tentative Map Development Agreement Utility Master Plans Infrastructure Finance Plan Approval of water lines, water hookups, and review of water needs Approval of storm drainage system Approval of sewer connection and treatment Agricultural Preservation Permit/Impact Fee
Kern County Local Agency Formation Commission	Approval of Annexation Proposal Amendment of Sphere of Influence Municipal Service Review
City of Bakersfield and Kern County	Habitat Conservation Plan
Kern County	Annexation Agreement
California Regional Water Quality Control Board	Section 401 water quality certification General Construction Activity Storm Water Permit
San Joaquin Valley Air Pollution Control District	ISR Application Construction Permits
California Department of Transportation	Encroachment Permit for State Route 223
California Department of Conservation	Agricultural Conservation Easements Mitigation
U.S. Fish and Wildlife Service	Federal Endangered Species Act Consultation (Section 7) (San Joaquin Kit Fox)

2.5 PROJECT SITE

Site Location

The project site is located in an unincorporated area of Kern County approximately 21,000 feet south of the existing City of Bakersfield jurisdictional boundaries as shown in Figure 2-1: City of Bakersfield Limits and Sphere of Influence Map. The proposed project site is bounded on the north by the Bear Mountain



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KERN COMMUNITY
COLLEGE DISTRICT

Figure No.

2-1

Title

**BOLTHOUSE PROP LLC
BAKERSFIELD COLLEGE
SOUTH CENTER CAMPUS
BAKERSFIELD CITY LIMITS/
SPHERE OF INFLUENCE (SOI)**
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BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS**

Project Description
November 2007

Boulevard (State Route 223), the south by agricultural lands, the west by Kern County Water Agency's Kern Island Canal, and the east by State Highway 99. The proposed project site is located at the southwest corner of the Bear Mountain Boulevard (State Route 223) and State Highway 99 interchange. The proposed project site is approximately twelve (12) miles south of the Bakersfield Central Business District (Chester Avenue/Truxtun Avenue) and Amtrak Station.

Site Characteristics

The proposed project site is approximately 1,513.31 +/- acres and is made up of ten (10) separate parcels. Figure 2-2 Assessor Map depicts the ten (10) separate parcels under consideration for the proposed specific plan and the four parcels from which the proposed 120 acre campus site would be created. The conceptual land use plan for the 1,513.31 acres depicts the college campus in the northern quadrant of the specific plan area. Table 2-2 Bakersfield College South Center Campus-Bolthouse Properties LLC, Parcel Information, presents information about the parcels under consideration.

Table 2-2 Bakersfield College South Center Campus-Bolthouse Properties LLC Parcel Information

Assessor's Parcel Number	Acreage	Land Use
185-341-05	28.97	Exclusive Agricultural
185-341-06*	18.55	Exclusive Agricultural
185-341-07*	18.29	Exclusive Agricultural
185-341-08	23.74	Exclusive Agricultural
185-341-04*	247.72	Exclusive Agricultural
185-341-03*	74.55	Exclusive Agricultural
185-342-02	239.4	Exclusive Agricultural
185-342-03	255.75	Exclusive Agricultural
445-020-01	331.6	Exclusive Agricultural
445-020-03	274.74	Exclusive Agricultural

*Grey shaded rows above depict parcels from which 120 acre campus will be created as proposed in the conceptual land use plan.

All parcels associated with the proposed project site are accessed off of Bear Mountain Boulevard (State Route 223). The proposed project site currently has one access point off of Bear Mountain Boulevard (State Route 223) located at the western end of the project site just before the Kern Island Canal. All parcels have agricultural uses and/or agricultural yard for equipment storage and staging. Properties immediately surrounding the proposed project site have been developed in commercial highway, rural residences, and row crops. Properties within close proximity of the project site include three dairies (Confined Animal Facilities) recreational vehicle park, truck stop, and single family residences.

CRITICAL ISSUES REVIEW / FEASIBILITY REPORT BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS

November 2007

3.0 Disciplinary Development Issues

3.1 AIR QUALITY

Jurisdiction for compliance with the Federal Clean Air Act for stationary sources of air pollution is delegated to the individual air pollution control districts (APCDs) or air quality management districts (AQMDs) in California. The proposed project site is within the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). The SJVAPCD is primarily responsible for regulating air pollution emissions from stationary sources (e.g., factories) and indirect sources (e.g., traffic associated with new development), as well as for monitoring ambient pollutant concentrations. The District's jurisdiction encompasses eight counties: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare and Kern. The California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (EPA) regulate direct emissions from motor vehicles.

3.1.1 Air Quality Standards and Attainment Status

Both the State and Federal governments have established health-based Ambient Air Quality Standards for six air pollutants: carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead (Pb), and suspended particulate matter (PM). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

In addition to primary and secondary Ambient Air Quality Standards, the State of California has established a set of episode criteria for O₃, CO, NO₂, SO₂, and PM. These criteria refer to episode levels representing periods of short-term exposure to air pollutants that actually threaten public health. Health effects are progressively more severe as pollutant levels increase from Stage One to Stage Three.

California Ambient Air Quality Standards and National Ambient Air Quality Standards for the criteria air pollutants are listed in Table 3-1.

Table 3-1: Air Quality Standards

Pollutant	Average Time	California Standards	Federal Standards
Carbon Monoxide (CO)	8-hour	9 ppm	9 ppm
	1-hour	20 ppm	35 ppm
Nitrogen Dioxide (NO ₂)	1-hour	0.25 ppm	-----
	Annual Arithmetic Mean	-----	0.053 ppm
Ozone (O ₃)	1-hour	0.09 ppm	0.12 ppm
	8-hour	-----	0.08 ppm
Lead (Pb)	30-day	1.5 pg/m ³	-----
	Quarterly	-----	1.5 pg/m ³
Particulate Matter (PM ₁₀)	24-hour	50 pg/m ³	150 pg/m ³
	Annual Arithmetic Mean	20 pg/m ³	50 pg/m ³
Particulate Matter (PM _{2.5})	24-hour	-----	35 pg/m ³
	Annual Arithmetic Mean	12 pg/m ³	15 pg/m ³

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**CRITICAL ISSUES REVIEW / FEASIBILITY REPORT
BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS**
Disciplinary Development Issues
November 2007

Pollutant	Average Time	California Standards	Federal Standards
Sulfur Dioxide (SO ₂)	24-hour	0.04 ppm	0.14 ppm
	3-hour	-----	0.50 ppm
	1-hour	0.25 ppm	-----
	Annual Arithmetic Mean	-----	0.03 ppm

Ppm = parts per million pg/m3 = micrograms per cubic meter
Source: U.S. EPA and ARB, 2005

The project would be subject to Rule 9510, which requires developers of larger residential, commercial and industrial projects to reduce smog-forming and particulate emissions generated by their projects. The rule encourages developers to reduce as much air pollution as possible through on-site mitigation, or incorporating air-friendly designs and practices into the project.

The KCCD must file an Indirect Source Review (ISR) application with the SJVAPCD prior to or concurrent with the proposed project's land use application.

3.1.2 Federal Clean Air Act

The Federal 1970 Clean Air Act authorized the establishment of national health-based air quality standards and also set deadlines for their attainment. The Federal Clean Air Act Amendments of 1990 changed deadlines for attaining National Ambient Air Quality Standards as well as the remedial actions required of areas of the nation that exceed the standards. Under the Clean Air Act, State and local agencies in areas that exceed the National Ambient Air Quality Standards are required to develop State Implementation Plans to show how they will achieve the National Ambient Air Quality Standards for O₃ by specific dates.

The Clean Air Act requires that projects receiving federal funds demonstrate conformity to the approved State Implementation Plan and local air quality attainment plan for the region. Conformity with the State Implementation Plan requirements would satisfy the Clean Air Act requirements.

3.1.3 California Clean Air Act of 2006

In 1988, the California Clean Air Act required that all air districts in the State endeavor to achieve and maintain California Ambient Air Quality Standards for O₃, CO, SO₂ and NO₂ by the earliest practical date. Plans for attaining California Ambient Air Quality Standards were submitted to the California Air Resource Board by June 30, 1991, 1994, 1997, 2000, 2004 and 2007. The California Clean Air Act provides districts with new authority to regulate indirect sources and mandates that air quality districts focus particular attention on reducing emissions from transportation and area-wide emission sources. Each district plan is to achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors. Additional physical or economic development within the region would tend to impede the emissions reduction goals of the California Clean Air Act. The SJVAPCD prepared an Air Quality Attainment Plan for the San Joaquin Valley Air Basin in compliance with the requirements of the Act. The Clean Air Act and the Air Quality Attainment Plan also identify transportation control measures as methods of reducing emissions from mobile sources. The California Clean Air Act defines transportation control measures as "any strategy to reduce vehicle trips,

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vehicle use, vehicle miles traveled, and vehicle idling or traffic congestion for the purpose of reducing motor vehicle emissions.”

3.1.4 AB 32 Global Warming Solutions Act of 2006

The goal of AB 32, the Global Warming Solutions Act of 2006, is to reduce California’s global warming emissions to 2000 levels by 2010, to 1990 levels by 2020, and 80% below 1990 levels by 2050. This reduction is to be accomplished through an enforceable statewide cap on global warming emissions that will be phased in starting in 2012. In order to effectively implement the cap, AB 32 directs the California Air Resources Board (CARB) to develop appropriate regulations and establish a mandatory reporting system to track and monitor global warming emissions levels. Specifically, AB 32 requires CARB to:

- Establish a statewide greenhouse gas emissions cap for 2020, based on 1990 emissions by January 1, 2008.
- Adopt mandatory reporting rules for significant sources of greenhouse gases by January 1, 2009.
- Adopt a plan by January 1, 2009 indicating how emission reductions will be achieved from significant greenhouse gas sources via regulations, market mechanisms and other actions.
- Adopt regulations by January 1, 2011 to achieve the maximum technologically feasible and cost-effective reductions in greenhouse gas, including provisions for using both market mechanisms and alternative compliance mechanisms.
- Convene an Environmental Justice Advisory Committee and an Economic and Technology Advancement Advisory Committee to advise CARB.
- Ensure public notice and opportunity for comment for all CARB actions.
- Prior to imposing any mandates or authorizing market mechanisms, CARB must evaluate several factors, including but not limited to impacts on California's economy, the environment and public health; equity between regulated entities; electricity reliability, conformance with other environmental laws and ensure that the rules do not disproportionately impact low-income communities.

3.1.5 Attainment Status Designations

The California Air Resources Board is required to designate areas of the State as attainment, nonattainment or unclassified for all State standards. An “attainment” designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A “nonattainment” designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. An “unclassified” designation signifies that data does not support either an attainment or nonattainment status. The California Clear Air Act divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The U.S. EPA designates areas for O₃, CO, and NO₂ as either “does not meet the primary standards,” or “cannot be classified” or “better than national standards.” For SO₂, areas are designated as “does not meet the primary standards,” “does not meet the secondary standards,” “cannot be classified” or “better than national standards.” In 1991, new nonattainment designations were assigned to areas that had

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**CRITICAL ISSUES REVIEW / FEASIBILITY REPORT
BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS**
Disciplinary Development Issues
November 2007

previously been classified as Group I, II, or III for PM10 based on the likelihood that they would violate national PM10 standards. All other areas are designated “unclassified.”

Table 3-2 provides a summary of the attainment status for the San Joaquin Valley with respect to national and State ambient air quality standards. The proposed Project is in the western portion of Kern County, which is located within the San Joaquin Valley Air Basin. The San Joaquin Valley Air Basin is considered to be in nonattainment of ozone, PM10 and PM2.5 standards.

Table 3-2: Standards San Joaquin Valley Attainment Status

Pollutant	Average Time	California Standards ^a		Federal Standards ^b	
		Concentration	Attainment Status	Concentration	Attainment Status
Carbon Monoxide (CO)	8-hour	9 ppm (10 mg/m ³)	Attainment	9 ppm (10 mg/m ³)	Attainment
	1-hour	20 ppm (23 mg/m ³)	Attainment	35 ppm (40 mg/m ³)	Attainment
Nitrogen Dioxide (NO ₂)	Annual Mean	Not Applicable	Not Applicable	0.053 ppm (100 pg/m ³)	Attainment
	1-hour	0.25 ppm (470 pg/m ³)	Attainment	Not Applicable	Not Applicable
Ozone (O ₃)	8-hour	0.07 ppm (137 pg/m ³)	Not Established	0.08 ppm (157 pg/m ³)	Nonattainment
	1-hour	0.09 ppm (180 pg/m ³) ^c	Nonattainment	Not Applicable	Not Applicable ^d
Particulate Matter (PM ₁₀)	Annual Mean	30 pg/m ³	Not Applicable	50 pg/m ³	Nonattainment
	24-hour	50 pg/m ³	Nonattainment	150 pg/m ³	Unclassified
Particulate Matter (PM _{2.5})	Annual Mean	12 pg/m ³	Nonattainment	15 pg/m ³	Nonattainment
	24-hour	Not Applicable	Not Applicable	65pg/m ³	Nonattainment
Sulfur Dioxide (SO ₂)	Annual Mean	Not Applicable	Not Applicable	80pg/m ³ (0.03 ppm)	Attainment
	24-hour	0.04 ppm (105pg/m ³)	Attainment	365pg/m ³ (0.14 ppm)	Attainment
	1-hour	0.25 ppm (655 pg/m ³)	Attainment	Not Applicable	Not Applicable

^a California standards for O₃, CO (except Lake Tahoe), SO₂ (1-hour and 24-hour), NO₂ and PM₁₀ are values that are not to be exceeded. If the standard is for a 1-hour, 8-hour, or 24-hour average, then some measurements may be excluded. In particular, measurements are excluded that ARB determines would occur less than once per year on the average.

^b National standards other than for O₃ and those based on annual averages or annual arithmetic means are not exceeded more than once a year. For example, the O₃ standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than 1.

^c These concentrations were approved by the Air Resources Board on April 28, 2005.

^d The National 1-hour ozone standard was revoked by U.S. EPA on June 15, 2005.

Notes: Lead (Pb) is not listed in the above table because it has been in attainment since the 1980s.

ppm = parts per million mg/m³ = milligrams per cubic meter µg/m³ = micrograms per cubic meter

Source: San Joaquin Valley Air Pollution Control District, Attainment Status 2005.

3.1.6 County of Kern General Plan Goal and Policies

The following policies from the Kern County General Plan specifically address air quality and are applicable to the proposed project.

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Disciplinary Development Issues
November 2007

Policies

18. The air quality implications of new discretionary land use proposals shall be considered in approval of major developments. Special emphasis will be placed on minimizing air quality degradation in the desert to enable effective military operations and in the valley region to meet attainment goals.

19. In considering discretionary projects for which an Environmental Impact Report must be prepared pursuant to the California Environmental Quality Act, the appropriate decision making body, as part of its deliberations, will ensure that:

(a) All feasible mitigation to reduce significant adverse air quality impacts have been adopted;
and

(b) The benefits of the proposed project outweigh any unavoidable significant adverse effects on air quality found to exist after inclusion of all feasible mitigation. This finding shall be made in a statement of overriding considerations and shall be supported by factual evidence to the extent that such a statement is required pursuant to the California Environmental Quality Act.

20. The County shall include fugitive dust control measures as a requirement for discretionary projects and as required by the adopted rules and regulations of the San Joaquin Valley Unified Air Pollution Control District and the Kern County Air Pollution Control District on ministerial permits.

21. The County shall support air districts' efforts to reduce PM10 and PM2.5 emissions.

22. Kern County shall continue to work with the San Joaquin Valley Unified Air Pollution Control District and the Kern County Air Pollution Control District toward air quality attainment with Federal, State, and local standards.

23. The County shall continue to implement the local government control measures in coordination with the Kern Council of Governments and the San Joaquin Valley Unified Air Pollution Control District.

24. Kern County shall consult with transit providers to determine project effects and ensure that impacts are mitigated.

3.1.7 Metropolitan Bakersfield General Plan Goal and Policies

The following goals and policies from the Metropolitan Bakersfield General Plan specifically address air quality and are applicable to the proposed project.

Goals

1. Promote air quality that is compatible with health, well being, and enjoyment of life by controlling point sources and minimizing vehicular trips to reduce air pollutants.

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CRITICAL ISSUES REVIEW / FEASIBILITY REPORT BAKERSFIELD COLLEGE -- SOUTH CENTER CAMPUS

Disciplinary Development Issues
November 2007

2. Continue working toward attainment of Federal, State and Local standards as enforced by the San Joaquin Valley Unified Air Pollution Control District.
3. Reduce the amount of vehicular emissions in the planning area.

Policies

1. Comply with and promote San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) control measures regarding Reactive Organic Gases (ROG). Such measures are focused on: (a) steam driven well vents, (b) Pseudo-cyclic wells, (c) natural gas processing plant fugitives, (d) heavy oil test stations, (e) light oil production fugitives, (f) refinery pumps and compressors, and (g) vehicle inspection and maintenance (I-1).
2. Encourage land uses and land use practices which do not contribute significantly to air quality degradation (I-1).
3. Require dust abatement measures during significant grading and construction operations (I-1).
4. Consider air pollution impacts when evaluating discretionary permits for land use proposals. Considerations should include (I-1):
 - a) Alternative access routes to reduce traffic congestion.
 - b) Development phasing to match road capacities.
 - c) Buffers including increase vegetation to increase emission dispersion and reduce impacts of gaseous or particulate matter on sensitive uses.
5. Consider the location of sensitive receptors such as schools, hospitals, and housing developments when locating industrial uses to minimize the impact of industrial sources of air pollution (I-1).
6. Participate in alternative fuel programs (I-2).
7. Participate in regional air quality studies and comprehensive programs for air pollution reduction (I-3).
8. Promote and assist in the development and implementation of the San Joaquin Valleywide Air Quality Study (I-3).
9. Promote public education regarding air quality issues and alternative transportation (I-4).
10. Implement the Transportation System Management Program (July 1984) for Metropolitan Bakersfield to improve traffic flow, reduce vehicle trips, and increase street capacity (I-1).

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Disciplinary Development Issues
November 2007

3.1.8 Regional Air Quality

The proposed Project site is located in the San Joaquin Valley, a large air basin that includes mountain ranges to the east, west, and south, and a relatively flat valley floor. The EPA designated the entire San Joaquin Valley as non-attainment for two pollutants: ozone and particle matter. On April 24, 2004, the EPA reclassified the San Joaquin Valley ozone nonattainment area from its previous severe status to "extreme" at the request of the San Joaquin Air Pollution Control District Board. On December 17, 2004, EPA took action to designate attainment and non-attainment areas under the more protective national air quality standards for fine particles or PM_{2.5}. Levels of PM₁₀ in the San Joaquin Valley currently exceed California Clean Air Act standards; therefore, the area is considered a nonattainment area for this pollutant relative to the State standards. PM₁₀ levels monitored at the Bakersfield-5558 California Avenue Air Quality Monitoring Station, the closest monitoring station with PM₁₀ data, exceeded the State's standard eighty-three times in 2005. The standard was exceeded one hundred sixty times in 2003. State ozone standards were exceeded twenty-eight times in 2005 and fifty-two times in 2006, representing a slight increase from previous years. For instance, the State ozone standard was exceeded only ten times in 2004, forty-four times in 2003 and twenty-eight times in 2002, averaging twenty-eight days per year for three years. The San Joaquin Valley is currently considered a maintenance area for State and federal CO standards.

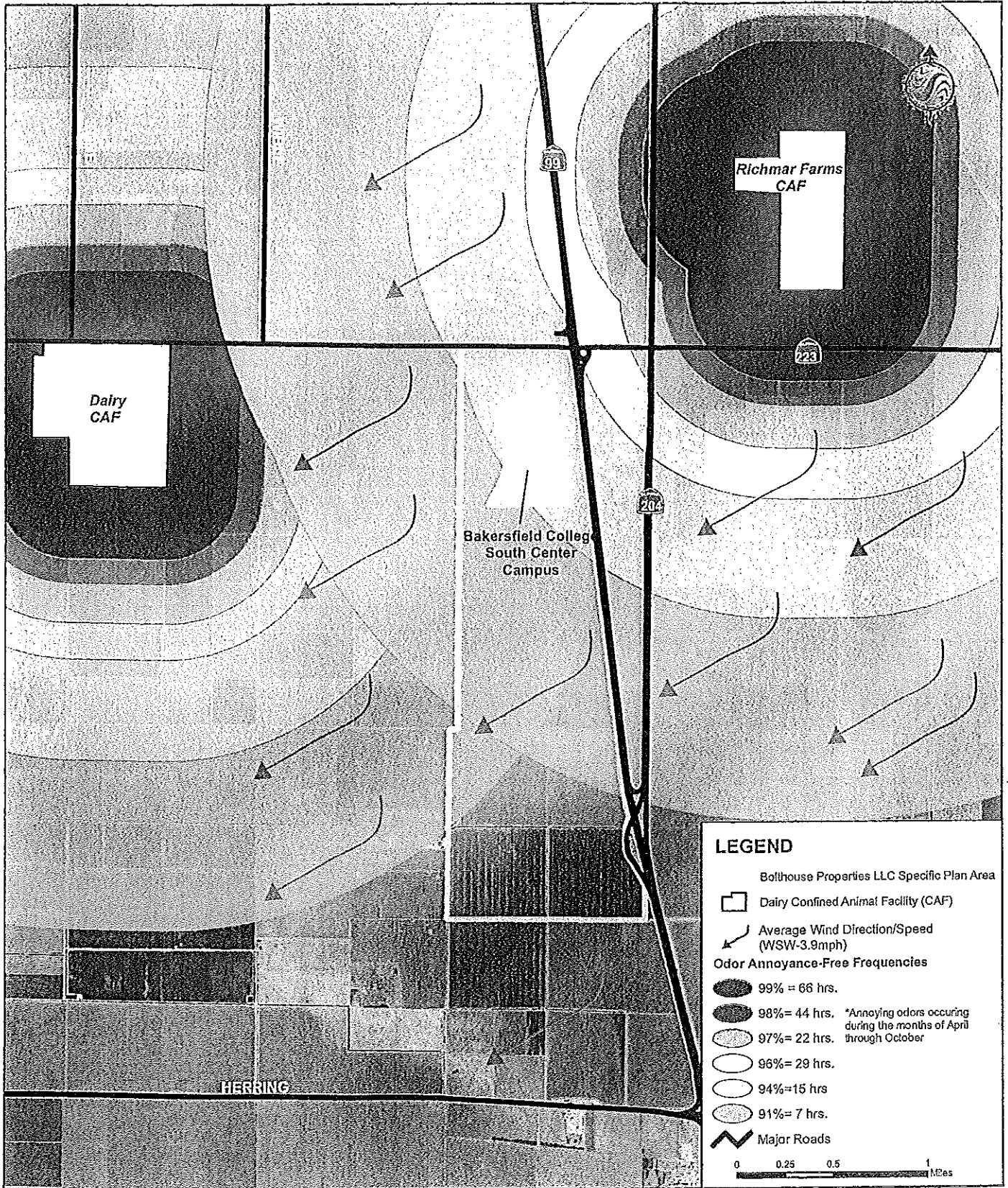
The District adopted an Ozone Attainment Demonstration Plan (2004) and a PM₁₀ Attainment Demonstration Plan (2003). In addition, to meet California Clean Air Act requirements, the District adopted the California Clean Air Act Triennial Progress Report and Plan Revision 1997-1999, adopted in 2001 to address the California ozone standard. A broad range of actions to improve air quality are set forth in the adopted plans to reduce CO, O₃ precursor emissions, and particulate matter. Generally, the State standards for these pollutants are more stringent than the national standards. Exceedances of air quality standards occur primarily during meteorological conditions conducive to high pollution levels, such as cold, windless winter nights or hot, sunny summer afternoons.

3.1.9 Local Climate and Air Quality

Air quality is a function of both local climate and local sources of air pollution. Air quality is the balance of the natural dispersal capacity of the atmosphere and emissions of air pollutants from human uses of the environment. The Project site is located in the southern San Joaquin Valley Air Basin. The basin stretches approximately 300 miles and runs from northern San Joaquin County to southern Kern County. It is shaped like a narrow bowl, while the sides of the "bowl" are bordered by mountain ranges.

The San Joaquin Valley has an "inland Mediterranean" climate averaging over 260 sunny days per year. The valley floor is characterized by warm, dry summers and cooler winters. Summer high temperatures in the Metropolitan Bakersfield area often exceed 100°F. Winters are mild and humid, with daytime temperatures reaching into the low 60s. However, mornings and nights tend to be especially cold in December and January, where lows can reach as low as 20°F.

Because of the Valley's unique physical characteristics, its pollution potential is very high. Surrounding elevated terrain, in conjunction with temperature inversions, frequently restricts lateral and vertical dilution



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3-1

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**BOLTHOUSE PROP LLC
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DAIRY IMPACT MAP**
NOVEMBER 2007

of pollutants. Abundant sunshine and warm temperatures in summer are ideal conditions for the formation of photochemical oxidants, and the Valley becomes a frequent scene of photochemical pollution.

3.1.10 Air Quality Issues Associated with Dairies Surrounding the Project Site

Dairy production is a prominent industry in the area surrounding the proposed project site. The proposed project site is centrally located between three large dairy operations - one located approximately 1 mile to the northeast and the other two located 1.5 miles to the west (see Figure 3-1 Dairy Impact Area). It is likely that the site will be subject to some of the unique air quality impacts associated with such operations, including but not limited to harmful dust from confined animal facilities and tilling crops, fumes from equipment and pesticides, and nuisance odors generated by livestock manure stockpiles and lagoons. Prevailing winds at the project site blow at a westerly to southwesterly direction at an average speed of 3.9 mph. The wind current coming from the Greenhorn Mountains to the northeast affects the odor annoyance by transporting the odors coming from the Richmar Farms Dairy by means of the air stream.

Air Contaminants Generated by Dairy Operations

The three primary sources of odor and air contaminants from dairy production are barns, manure storage and land application of manure. Dust and fumes from increased traffic associated with livestock production can also reduce air quality. The presence of contaminants does not equate to an environmental or health risk unless minimum threshold values are exceeded. Air contaminants released from livestock operations may include: gases, particulate matter (dust), microorganisms and endotoxins. Gases include ammonia, hydrogen sulfide, methane, sulphur and nitrogen compounds. Gases and particulate matter are of the greatest concern to people in and around confined animal facilities because they are exposed to the highest concentrations of contaminated air; however, dispersed and/or diluted air contaminants can pose a risk to neighboring properties. Table 3-3 outlines the properties and effects of gases emitted from dairy production.

Table 3-3: Properties and Effects of Gases Emitted from Dairy Production

Gas	Source	Properties	Health Effects		Environmental Effects
			Concentration	Symptom	
Ammonia (NH ₃)	Manure decomposition, composting, manure handling, storage application	Sharp, pungent odor (like glass cleaner) Lighter than air	2-6 ppm	Detectable but not a risk to public health	Contributes to the formation of airborne particulates May react with other compounds, potential leading to acid rain and ozone depletion Soil and water acidification Contributes to odor
			20-30 ppm		
			40-200 ppm	Burning eyes Headaches, nausea,	
			3,000 ppm	Respiratory irritation	
			5,000 ppm	Asphyxiating Could be fatal	

Gas	Source	Properties	Health Effects		Environmental Effects
			Concentration	Symptom	
Hydrogen sulfide (H ₂ S)	Bacterial decomposition in manure without oxygen (anaerobic)	Heavier than air Accumulates near the floor in enclosed buildings Initially a rotten egg smell, but lethal concentrations paralyze sense of smell	2 ppm 20 ppm 50 ppm >500 ppm	Detectable Paralyzes sense of smell Dizziness, nausea, headache, respiratory irritation Death from respiratory paralyzes in seconds	May react with other compounds, potentially leading to acid rain
Methane (CH ₄)	Decomposition of manure without oxygen (anaerobic)	No smell Lighter than air	50,000 ppm 500,000 ppm	Explosive when mixed with air Can cause headaches and eventually asphyxiation when oxygen is displaced	A greenhouse gas that may contribute to global warming
Carbon dioxide (CO ₂)	Anaerobic and aerobic decomposition of organic materials Plant and animal respiration Combustion of fossil fuels	No smell Heavier than air	30,000 ppm 40,000 ppm 100,000 ppm 300,000 ppm	Increased rate of breathing Drowsiness headache Dizziness, unconsciousness Could be fatal in 30 minutes	A greenhouse gas that may contribute to global warming Removed from the air by photosynthesis Stored in soils and oceans
Nitrogen oxides (NO _x)	NO _x naturally generated by bacterial processes, decomposition and fires Humans contribute primarily by burning fossil fuels	NO and N ₂ O are colorless, NO ₂ is reddish brown NO ₂ is the most common of NO _x and is one of the main components of smog		NO _x not very soluble so symptoms may be delayed. Effects include respiratory irritation, coughing, fever, and in extreme conditions respiratory failure.	Potentially toxic to plants, leading to reduce growth. NO _x are the most potent greenhouse gases emitted by agriculture May deplete ozone
Trace gases associated with odor	Anaerobic decomposition of manure	Often have distinct smells	In low quantities, these compounds are not considered a serious threat to human health		Contributes to odor May form airborne particulates

Beneficial Management Practices – Environmental Manual for Dairy Producers in Alberta, Canada, October 2003.

Odors Associated with Dairy Production.

The primary complaint about livestock operations is odor. Odor is generally considered more of a nuisance than a health risk to neighbors. Because of the degree of dilution and dispersion that occurs within short distances from the odor source, odor's impact on health is uncertain due to the high number of compounds that may be present at extremely low concentrations. There is a difference between the psychological and physiological health effects related to odor exposure. Psychological effects such as irritation can result from exposure to odor and often occur at levels well below those that can harm human health. Physiological effects can occur from exposure to specific compounds that make up odor, for

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example, asphyxiation from exposure to hydrogen sulfide (H₂S) in a confined space. It is difficult to evaluate odor and its health effects for the following reasons:

- Psychological and physical health effects are not necessarily independent.
- Odor from livestock is made up of about 160 compounds. Humans have many and varied responses to these compounds.
- The proportion and characteristics of odor contributed by each of the primary sources (barns, storage and land application) are not well understood. Research is underway to characterize odors released from each of these sources.
- Odor intensity and offensiveness vary between individuals.
- Combining different odor compounds can have positive and negative effects on odor's intensity and offensiveness. These effects are not easily predicted.

Odor formation and transport from dairy operations is a complex process. Odor formation is most rapid during hot weather when anaerobic conditions set in the fastest. Conversely, atmospheric dispersion is best when heated surfaces induce gusty winds and convective turbulence; therefore, there is no time of day when odor potential is minimized. Odors generate faster in the day, but disperse faster at night. Slower nocturnal chemistry is offset by more stagnant meteorology.

In order to predict odor impacts from the nearby confined animal facilities (dairies) on the proposed college campus site and specific plan area, Stantec applied the University of Minnesota "Odor from Feedlots Setback Estimation Tool" (OFFSET). The OFFSET tool is the result of four years of extensive data collection and field testing. It is a simple tool designed to estimate average odor impacts from a variety of animal facilities and manure storages. These estimations are useful for evaluating the effects of the existing confined animal facilities on the future development of the Bakersfield College South Center Campus. OFFSET is based on odor measurements from Minnesota farms and Minnesota climatic conditions. As such, the use of OFFSET for estimating odor impacts in the San Joaquin Valley was utilized to provide some understanding of the potential impacts. To ensure this model is accurate would require model validation at similar dairy operations in the near vicinity.

The amount of odor emitted from a particular dairy is a function of animal species, housing types, manure storage and handling methods, the size of the odor sources, and the implementation of odor control technologies. However, the impact of these odors on the surrounding neighborhood or community is a function of both the amount of odor emitted and the weather conditions. Weather conditions strongly influence the movement and dilution of odors. Odor impact includes the strength of the odors and the frequency and duration of the odor events. OFFSET combines odor emission measurements with the average weather conditions to estimate the strength and frequency of odor events at various distances from a given confined animal facility.

The following worksheets (Table 3-4: Total Odor Emission Factor (TOEF) Worksheet for Richmar Farms and Table 3-5: Total Odor Emission Factor (TOEF) Worksheet for R&J and Bear Mountain Dairies outlines a step-by-step process for determining the total odor emissions for each dairy confined animal

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BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS**Disciplinary Development Issues
November 2007

facility site. This Total Odor Emissions Factor (TOEF) is the sum of odor emissions from all odor sources (e.g. barns, manure storages) on each dairy site. The procedure accounts for species, housing types and sizes, manure storage types and sizes, and odor control technologies used at each dairy.

Table 3-4: Total Odor Emission Factor (TOEF) Worksheet for Richmar Farms

A Odor Source	B Odor Emission Number/ft ²	C Area (Sq. Ft.)	D Odor Control Factor	E Odor Emission Factor (BxCxD/10,000)
Milking Barn/Cattle Shade	6	13,400	.3	2.41
Maternity Barn	6	120,000	.3	21.6
Freestall Barns	6	640,000	.3	115.2
Cattle Shade	6	160,000	.3	28.8
Manure Lagoons/Separation Pits	13	426,000	.3	166.14
Total Odor Emission Factor (TOEF) sum of Column E				334.15

Table 3-5: Total Odor Emission Factor (TOEF) Worksheet for R&J and Bear Mountain Dairies

A Odor Source	B Odor Emission Number/ft ²	C Area (Sq. Ft.)	D Odor Control Factor	E Odor Emission Factor (BxCxD/10,000)
Milking Barn/Cattle Shade	6	35,378	.3	6.37
Maternity Barn	6	17,822	.3	3.2
Freestall Barns	6	320,000	.3	57.6
Cattle Shade	6	212,000	.3	38.16
Manure Lagoons/Separatio n Pits	13	960,000	.3	374.4
Total Odor Emission Factor (TOEF) sum of Column E				479.73

Utilizing OFFSET Tool a TOEF of 479.73 was determined for the dairies to the west of the project site (J&R Dairy and Bear Mountain Dairy). With this TOEF the dairy (s) would have to be setback approximately 2.8 miles from any sensitive receptor to have a ninety-nine percent occurrence of an odor free area. During the rest of the time (1% or 7 hours per month) annoying odors will be detected at this distance. Reducing the frequency of odors to 96% would require a separation distance of less than 0.85 miles. At this distance, annoying odors would be experienced 4% of the time, or 29 hours per month. Odor annoyance frequencies of 99%, 98%, 97%, 96%, 94% and 91% correspond to 7, 15, 22, 29, 44 and 66 hours/month of annoying odors. Since these predicted frequencies are based on "average" weather conditions, actual frequencies of odor events may be significantly different.

Utilizing OFFSET Tool a TOEF of 334.15 was determined for the dairy to the northeast of the project site. With this TOEF the dairy would have to be setback approximately 2.4 miles from any sensitive receptor to

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have a ninety-nine percent occurrence of an odor free area. During the rest of the time (1% or 7 hours per month) annoying odors will be detected at this distance. Reducing the frequency of odors to 96% would require a separation distance of less than 0.7 miles. At this distance, annoying odors would be experienced 4% of the time, or 29 hours per month. Odor annoyance frequencies of 99%, 98%, 97%, 96%, 94% and 91% correspond to 7, 15, 22, 29, 44 and 66 hours/month of annoying odors. Since these predicted frequencies are based on "average" weather conditions, actual frequencies of odor events may be significantly different.

Figure 3-1: Dairy Impact Area Map, illustrates each dairy's proximity to the project site and the above corresponding values of odor annoyance-free frequencies.

3.1.11 Air Quality Critical Issues

Project Consistency with Air Quality Attainment Plan

The proposed project is located outside of the City of Bakersfield's Sphere of Influence (SOI); therefore, the project represents growth that was not anticipated or planned. Additionally, the current General Plan land use designation is Intensive Agriculture; further indicating that population growth in the area was not intended or planned. Consequently, such unplanned growth was not accounted for within the Kern County Council of Government's Regional Transportation Plan (RTP), representing a potential inconsistency with the San Joaquin Valley Air Quality Attainment Plan. Development of the project will require careful planning to ensure consistency with the Air Quality Attainment Plan.

Project Air Quality Impacts and Mitigation Measures

It is anticipated adherence to SJVAPCD rules and standard control measures will mitigate project specific impacts to a less than significant level. However, an EIR will be required to allow overriding considerations for regional emissions and cumulative impacts of the proposed project concerning ozone precursors.

Air Quality Issues Associated with Proximity of Project Site to Confined Animal Facilities (Dairies)

Three large dairy operations are located within close proximity to the proposed project site; one 1 mile to the northeast and two others approximately 1.5 miles to the west. As aforementioned above, dairy operations can generate harmful air pollutants and objectionable odors. This location is particularly vulnerable to nuisance odors due to its close proximity to nearby dairies.

Air Quality Issues Due to Proximity to Truckstop and Major Highway

There is a truckstop directly adjacent to the proposed project site, near the corner of Bear Mountain Boulevard and Costajo Street. It is common for diesel trucks to be left idling for hours, producing noxious fumes and harmful pollutants. In addition, the proposed Project site is directly adjacent to a major highway, State Highway 99. There is a high potential for increased quantities of harmful air contaminants associated with automobiles and diesel vehicles, such as CO, CO₂, CO₃, SO₂ and particulates. These factors, when coupled with topographical and climactic conditions in the area, create the potential for a pollution "hot spot".

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Valley Fever

Valley Fever is a sometimes deadly fungal infection that is caused by the fungus *Coccidioides immitis*, which lives in the soil and is spread through the air via dry dust and soil during soil disturbance. Due to climactic conditions, infection is common in those living and working in agricultural areas of Kern County. The project site is surrounded by row crops and extensive agricultural operations which involves tilling of the soil and large amounts of dust associated with such earthwork. The surrounding land to the project site is not planned for future urban growth, which would eventually reduce the exposure to dust and soil disturbance caused by agricultural operations. But rather most properties surrounding the project site is under Williamson Act Contracts and planned for intensive agriculture.

3.2 AGRICULTURAL RESOURCES

The following section describes regulations that are specifically related to agricultural uses. These include Williamson Act Contracts, the Farmland Mapping and Monitoring Program, and the Kern County Right-to-Farm Ordinance (Chapter 8.56).

3.2.1 Williamson Act Contract

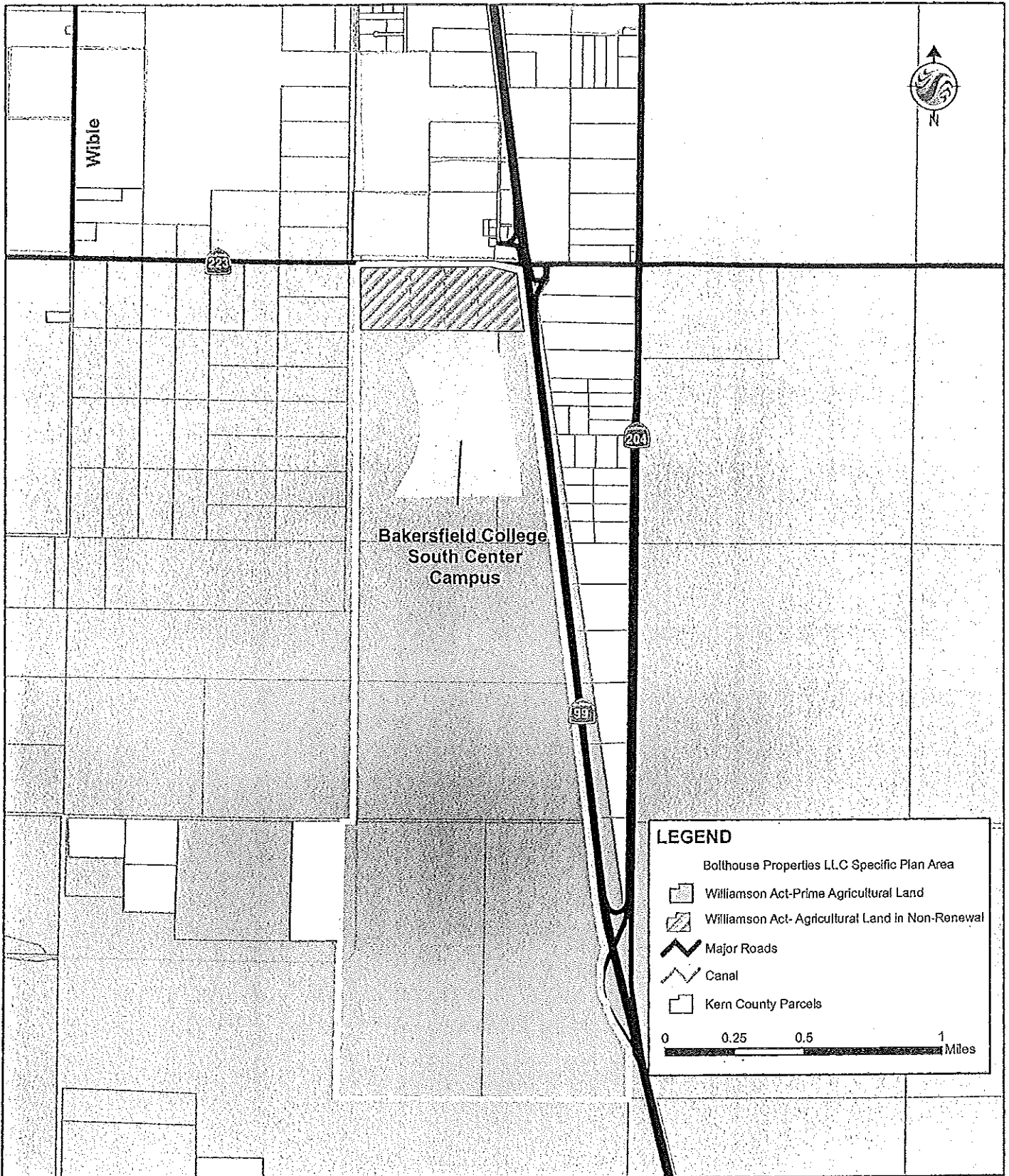
Williamson Act

The California Legislature passed the Williamson Act in 1965 to preserve agricultural and open space lands. The Williamson Act creates an arrangement between private landowners and counties/cities, where the landowner agrees to restrict their land to agricultural or open space uses. In return, these parcels are assessed for property tax purposes at a rate that is consistent with their actual use and not their potential market value.

The information used to determine the number of Williamson Act Land Use Contracts within the planning area of the proposed Bakersfield College South Center Campus was a combination of the California Department of Conservations records for Williamson Act lands in combination with the Kern County Planning and Assessors Departments. All parcels on the planning area that front Bear Mountain Boulevard (185-341-05, 185-341-06, 185-341-07, 185-341-08) are under a Williamson Act Contract for Agricultural Land-Non Renewal. The remaining parcels to the south are under an active Williamson Act Contract for Prime Agricultural Land. (See Figure 3-2: Williamson Act Land Use Contract Map)

KCCD may acquire Williamson Act land by public acquisition as defined in the Williamson Act. If all the requirements for public acquisition of Williamson Act land are met, the land may be acquired and the contract may be terminated. If requirement are not met, the acquisition may not be valid, and the contract may remain in force and continue to restrict the use of the land for the proposed Bakersfield College South Center Campus. If the acquired property remains within an agricultural preserve, land use remains subject to the rules of the preserve.

The policy of the state, consistent with the purpose of the Williamson Act to preserve and protect agricultural land, is to avoid, whenever practicable, locating public improvements and any public utilities improvements in agricultural preserves. If it is necessary to locate within a preserve, it shall be on land



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 Figure No. **3-2**

Title
**BOLTHOUSE PROP LLC
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 SOUTH CENTER CAMPUS
 WILLIAMSON ACT LAND USE**
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Disciplinary Development Issues
November 2007

that is not under contract (Government Code Section 51290(a)(b)). More specifically, the basic requirements are:

- *Whenever it appears* that land within a preserve or under contract may be required for College Campus, the KCCD shall notify the Department of Conservation and Kern County (Government Code Section 51291(b)).
- Within thirty (30) days of being notified, the Department of Conservation and Kern County shall forward comments, which shall be considered by the KCCD (Government Code Section 51291(b)).
- KCCD shall not locate the proposed Bakersfield College South Center Campus within an agricultural preserve unless the following *findings* are made (Government Code Section 51292).

"a). The location is not based primarily on a consideration of the lower cost of acquiring land in agricultural preserve (Government Code Section 51292(a)).

b). If the land is agricultural land covered under a contract pursuant to this chapter for any public improvement, that there is no other land within or outside the preserve on which it is reasonably feasible to locate the public improvement (Government Code Section 51292(a)(b))."

- The contract shall be terminated when land is acquired by *eminent domain or in lieu of eminent domain* (Government Code Section 51295).
- The Department of Conservation and Kern County shall be notified before Campus completion (Government Code Section 51291(d)).
- The Department of Conservation shall be notified within ten (10) working days upon *completion* of the acquisition (Government Code Section 51291(c)).
- If, after acquisition, KCCD determines that the *property will not be used* for the proposed Bakersfield College South Center Campus, before returning the land to private ownership, the Department of Conservation and Kern County shall be notified. The *land shall be reenrolled* in a new contract or encumbered by an enforceable restriction at least as restrictive as that provided by the Williamson Act (Government Code Section 51295).

Only the land north of the proposed Bakersfield College South Center Campus is in non-renewal status. All lands south, east, and west of the proposed campus is under Williamson Act contract. Land conservation contracts are difficult to cancel, and owners wishing to cancel existing contracts must petition to the Kern County Board of Supervisors. In order for cancellation to be approved, the County Board of Supervisors must determine that such action is in the public benefit and that no other non-contracted land is available that can be used for the purpose. Withdrawing lands from the contract before the end of the ten-year contract period means that substantial financial penalty will be levied by the County to the landowner.

3.2.2 Farmland Mapping and Monitoring Program

The California Department of Conservation's Division of Land Resource Protection has developed the Farmland Mapping and Monitoring Program (FMMP), which analyzes impacts on California's agricultural resources. Agricultural resources are rated using a classification system that combines soil ratings and current land use to create Important Farmland Maps. The minimum mapping units for all categories is 10 acres. Smaller units of land are incorporated into the surrounding map classification.

The FMMP designations of the project area include Irrigated Farmland (I) and Other Land (X). The FMMP farmland map can be seen in Figure 3-3: FMMP Farmland Designation. A description of the farmland types located on the project area are found below, and are provided by the FMMP.

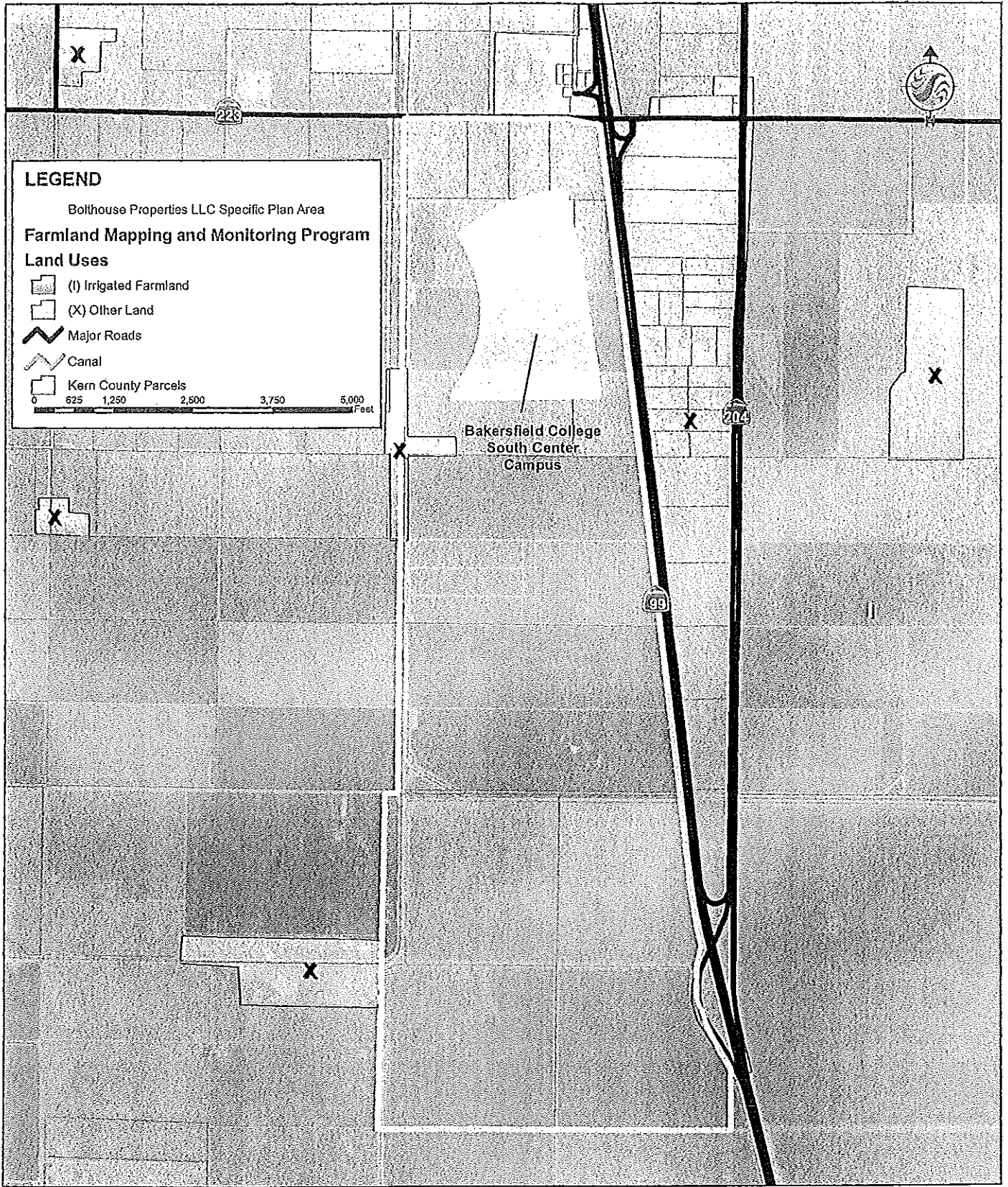
Irrigated Farmland. Cropped land with a developed irrigation water supply that is dependable and of adequate quality. Land must have been used for irrigated agricultural production at some time during the four years prior to mapping date.

Other Land. Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land. The entire proposed project site is designated by the California Department of Conservation as "Non-enrolled Land."

An expanded version of the Williamson Act, called the Farmland Security Zones (FSZ's) or Super Williamson Act was created in 1998 to mirror a majority of the Williamson Act provisions. Most significantly, the FSZ extends the Williamson Act protections for 20-year periods. FSZ's offer greater property tax reductions. The reduced taxes are based on either 65% of the value of the land under Williamson Act contract or 65% of the Proposition 13 valuation, whichever is lower. In addition, the FSZ's provide other land use related benefits such as prohibition from conversion by school districts for school facilities. There are no FSZ's within the project area or adjacent to the project area. In addition, there is no Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance on the project area or within close proximity of the project area.

3.2.3 Kern County Right-to-Farm Ordinance (County Code Chapter 8.56)

Kern County also has a Right-to-Farm Ordinance. This ordinance declares that agricultural land uses not a nuisance at the time it began, cannot become a nuisance later, due to the changed condition of developing the proposed college campus and new urban uses called for by the specific plan. The County recognizes and supports the right to farm agricultural lands, and that residents of property on or near agricultural land should be prepared to accept the inconveniences or discomforts associated with agricultural operations, including noise, odors, insects, fumes, dust, 24-hour operations, and the use of fertilizers. The County has determined that inconveniences or discomfort associated with agricultural operations shall not be considered a nuisance.



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Figure No.
3-3

Title

**BOLTHOUSE PROP LLC
 BAKERSFIELD COLLEGE
 SOUTH CENTER CAMPUS
 FMMP FARMLAND
 DESIGNATION MAP**
 NOVEMBER 2007

3.2.4 Agricultural Critical Issues

Proposed Project may Conflict with Surrounding Agricultural Lands

Agricultural uses are located immediately surrounding the proposed project site. Large Confined Animal Facilities (Dairy) are located within 1 mile west and east of the project site. Silage fields surrounding the dairy production sites are utilized for spreading manure and effluent from the dairy and are located within ¼ mile of the project site. The Kern Island Canal, State Highway 99, and Bear Mountain Boulevard provides a buffer or physical barrier between proposed development and the existing agricultural uses. However, agricultural lands operated as Large Confined Animal Facilities to the east and west have very large impact areas which may conflict with the proposed urban land uses and college campus. (See Figure 3-1: Dairy Impact Map) Due to the immediate proximity, and the lack of physical barriers, impacts could include late night agricultural operations, nuisance odors, dust and wind erosion, vector/fly issues, mosquito issues, or vandalism of agricultural areas. The following mitigation measures are typically utilized to reduce the potential conflicts associated ongoing agricultural operations near urban development:

- The applicant shall inform and notify prospective buyers in writing, prior to purchase, about existing and on-going agricultural activities in the immediate area in the form of a disclosure statement. The notifications shall disclose that the residence is located in an agricultural area subject to ground and aerial applications of chemical and early morning or nighttime farm operations which may create noise, dust, et cetera. The language and format of such notification shall be reviewed and approved by the City Development Services Department or County Planning Department prior to recordation of final map(s). Each disclosure statement shall be acknowledged with the signature of each prospective owner. Additionally, each prospective owner shall also be notified of the County of Kern Right-to-Farm Ordinance.
- The conditions of approval for the tentative map(s) shall include requirements ensuring the approval of a suitable design and the installation of a landscaped open space buffer area, fences, and/or walls around the perimeter of the project site affected by the potential conflicts in land use to minimize conflicts between project residents, non-residential uses, and adjacent agricultural uses prior to occupancy of adjacent houses.
- Prior to recordation of the final map(s) for homes adjacent to existing agricultural operations, the applicant shall submit a detailed wall and fencing plan for review and approval by the City Development Services Department.

Findings Necessary for Public Acquisition of Williamson Act Contracted Land

To make the necessary finding to allow public acquisition of Williamson Act contracted land the KCCD Board of Trustees must document that there is no other location that is not under contract and reasonably feasible for the propose Bakersfield College South Center Campus (Government Code Section 51292(b)). Simple selecting the Bolthouse LLC Property because it is the "best location" or the "preferred location" or the "most affordable" will not qualify. If all requirements are not met, the conservation contract will remain in force and continue to restrict use of the land to agricultural purposes only. To properly show no other location is more suitable will require a comprehensive study and documentation by KCCD.

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The proposed property for the Bakersfield College South Center Campus must be acquired by eminent domain or "in lieu" of eminent domain must follow eminent domain law to qualify the acquisition for removing the Williamson Act contract from the property. KCCD should obtain legal counsel for this purpose.

Finally, to void the Williamson Act contract by public acquisition, KCCD must notify the Department of Conservation and Kern County and provide the following information:

- The total number of acres of Williamson Act land to be acquired and whether the land is considered prime agricultural land according to Government Code Section 51201.
- The purpose of the acquisition and why the land was identified for acquisition.
- A description of where the parcels are located.
- Characteristics of adjacent land (urban development, Williamson Act, non contract agricultural land, etc.).
- A vicinity map and location map.
- A copy of the contracts covering the land.
- CEQA documents for the purchase of the land.
- The findings required under the Government Code Section 51292, an explanation of the preliminary consideration of Section 51292 and documentation to support the findings. (*Include a map of the proposed site showing an area of surrounding land identified by characteristics and large enough to demonstrate, along with the explanation, that no other, noncontracted land is reasonably feasible for the proposed Bakersfield College South Center Campus.*)
- Documentation to support acquisition by eminent domain or in lieu of eminent domain to void the contract pursuant to Government Code Section 51295. (*Include copies of eminent domain proceedings, if applicable, a property appraisal and written offer pursuant to Government Code Section 7267.1 and 7267.2, a chronology of steps taken or planned to effect acquisition by eminent domain or in lieu of eminent domain and copies of any other pertinent documents, such as a Resolution of Necessity.*)

KCCD must consider the Department of Conservation's comments (Government Code Section 21291(b)), and adhere to the Williamson Act statute in determining whether to complete the acquisition.

3.3 BIOLOGICAL RESOURCES

Biological resource issues that may become critical in the approval, permitting, and development of the proposed Bakersfield College South Center Campus and Specific Plan Project include potential impacts to listed and sensitive species and their critical habitats, and to unique terrestrial habitats and wetlands. Potential impacts to special-status species may require time consuming or limited season protocol surveys, extensive mitigation measures, and negotiation with the U. S. Fish and Wildlife Service

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(USFWS), National Marine Fisheries Service (NMFS) and the California Department of Fish and Game (CDFG).

3.3.1 Data Collection Methods

In order to assess the potential presence of special status species on the project site, Stantec searched the California Natural Diversity Database (CNDDDB 2006), California Native Plant Society (CNPS) Online Inventory (2007), and the U.S. Fish and Wildlife Service (USFWS) online list, referencing the Gosford, Lamont, Weed Patch, Conner, Coal Oil Canyon, and Mettler quadrangles. Figure 3-4: California Natural Diversity Data Base (CNDDDB) Map, identifies the location of biological resources relative to the project site. Following a review of the CNDDDB results, a field assessment was conducted to determine if any listed species or their habitats would be affected by this project.

Terrestrial surveys were conducted on the site and the surrounding area by Stantec environmental scientists on September 3rd, and 20th, 2007. Windshield and walking surveys started from the northwest corner of the project site near the Kern Island Canal, and continued southward to the property boundary, then continued in a general clockwise direction along the property boundaries, while zigzagging across as much of the property as possible to assess microhabitat variations.

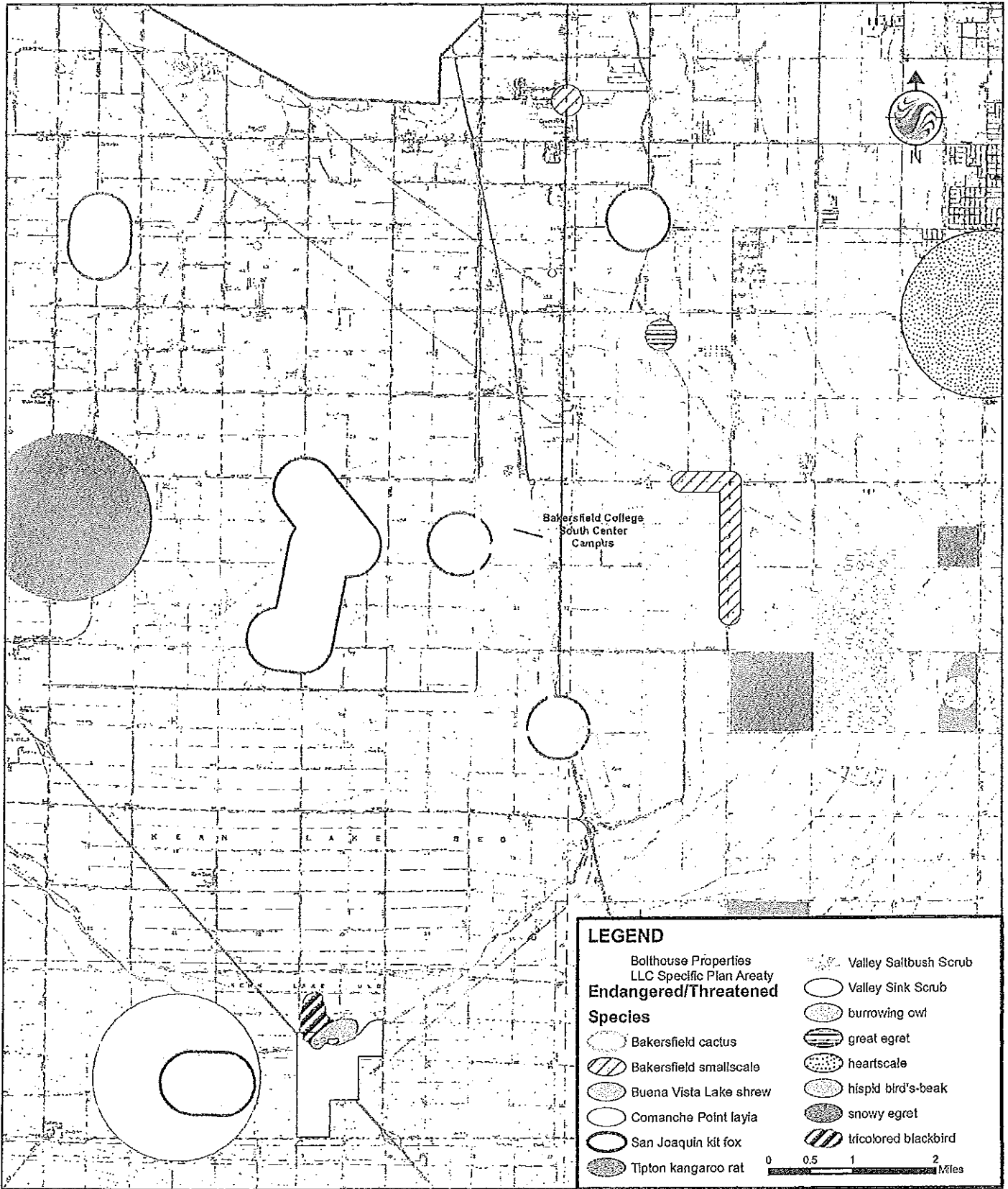
3.3.2 Threatened, Endangered, and Sensitive Species

Threatened, endangered, and sensitive species (TES) are those with specific regulatory protection under federal and state Endangered Species Acts and/or those potentially meeting the requirements for such protection. Prior to the site visit, a search of the California Natural Diversity Data Base was conducted. The results indicated the Bolthouse Properties LLC project site, contained the potential for the San Joaquin kit fox and the nearby is located the Bakersfield cactus. Although Special Status wildlife species such as Buena Vista Lake shrew, giant kangaroo rat, Nelson's antelope squirrel, San Joaquin kit fox, Tipton kangaroo rat, and Swainson's hawk are known to occur in the vicinity of the project area, habitat availability for CNDDDB listed species is limited. No Special Status plant species were documented as occurring within the Bolthouse Properties LLC specific plan area, however the site does provide minimal foraging habitat for the San Joaquin Kit fox and several burrowing owls were located along the Kern Island Canal just west of the proposed Bakersfield College South Center Campus site.

The initial reconnaissance of the proposed project site only located burrowing owls and none of the other species mentioned above. However, based on the habitat requirements of the many of the species, suitable habitat may exist in the in close proximity to the proposed college site. Therefore, prior to project inception, in-depth botanical and wildlife surveys should be conducted in areas of potentially suitable habitat during the spring/summer months.

3.3.3 Wetlands

Wetlands may be periodically or permanently saturated or inundated, and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, seasonal wetlands, and vernal pools. Based on a field reconnaissance and review of aerial photographs of the project site, wetlands and Waters of the U.S. are not present at the project site.



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Figure No. **3-4**

Title

**BOLTHOUSE PROP LLC
 BAKERSFIELD COLLEGE
 SOUTH CENTER CAMPUS
 CNDB MAP**
 NOVEMBER 2007

3.3.4 Metropolitan Bakersfield General Plan

Currently, the proposed campus site is located outside the Sphere of Influence for the City of Bakersfield and the Metropolitan Bakersfield General Plan. However, to develop the Bolthouse Properties LLC specific plan and the proposed campus the Sphere of Influence and Metropolitan Bakersfield General Plan will have to be amended which would subject the project site to the goals, policies, and objectives of the Metropolitan Bakersfield General Plan. Currently, the Metropolitan Bakersfield General Plan is being updated and is subject to change.

The Metropolitan Bakersfield General Plan is a policy document designed to give long range guidance to those making decisions affecting the future character of the Metropolitan Bakersfield planning area. It represents the official statement of the community's physical development as well as its economic, social, and environmental goals. The general plan also acts to clarify and articulate the relationship and intentions of local government to the rights and expectations of the general public, property owners, and prospective investors. Through the plan, the local jurisdiction can inform these groups of its goals, policies, and development standards; thereby communicating what must be done to meet the objectives of the plan. In particular, one of the Bakersfield Metropolitan General Plan goals within the Conservation Element (Chapter V) is to:

- Conserve and enhance Bakersfield's biological resources in a manner, which facilitates orderly development and reflects the sensitivities and constraints of these resources.
- To conserve and enhance habitat areas for designated "sensitive" animal and plant species.

The City of Bakersfield and County of Kern have determined that the most appropriate approach to conservation of protected Biological Resources in the Metropolitan Bakersfield area is through the Habitat Conservation Planning process. As a result, in 1994, the City and County received permits under Section 10(a)(1)(B) of the United States Endangered Species Act and Section 2081 of the California Endangered Species Act for incidental take of protected species in connection with development projects.

In addition, the City of Bakersfield has developed several policies for biological resources to achieve the goals outlined above. The following Policies and Implementation Measures are particularly important to the City of Bakersfield's planning area as listed within the Conservation Element:

Policies

1. Direct development away from "sensitive biological resource" areas, unless effective mitigation measures can be implemented.
2. Preserve areas of riparian vegetation and wildlife habitat within floodways along rivers and streams, in accordance with the Kern River Plan Element and channel maintenance programs designed to maintain flood flow discharge capacity.
3. Discourage, where appropriate, the use of off-road vehicles to protect designated sensitive biological and natural resources.

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Disciplinary Development Issues
November 2007

4. Determine the feasibility of enhancing sensitive biological habitat and establishing additional wildlife habitat in the study area with State and/or Federal assistance.
5. Determine the locations and extent of suitable habitat areas required for the effective conservation management of designated "sensitive" plant and animal species.
6. Investigate the feasibility of including natural areas selected for the habitat conservation plan as a component of the regional park system.

Implementation Measures

- I-1. When considering discretionary development proposals, consult available biological resource data covering the area. Determine the potential impacts and necessary mitigation measures for identified biological resources, as required in the California Endangered Quality Act. Regularly consult with responsible resource agencies.
- I-2. Develop ordinances (where appropriate) to protect sensitive biological resources from adverse impacts of off road vehicle use.
- I-3. Preserve habitat and avoid "take" of protected species as required in the Metropolitan Bakersfield Habitat Conservation Plan.
- 1-4. Protect sensitive habitat values of the Kern River Corridor through implementation of the Kern River Parkway Plan, Metropolitan Bakersfield Habitat Conservation Plan, and Kern River Plan Element.

3.3.5 Kern County General Plan

The Bakersfield College South Center Campus if not included in the City of Bakersfield Sphere of Influence would have to seek approval under the Kern County General Plan and thus would be located within the broad area addressed by the County of Kern General Plan (County of Kern, 2004). This plan has been developed in order to provide a strategy to guide future development as related to County of Kern. The general plan expresses the county's development goals and embodies public policy relative to the distribution of future land uses, both public and private. In addition, this plan has been developed with the following objectives:

- Encourage economic development that creates jobs and capital investments in urban and rural areas that benefits residents, businesses, and industries, as well as ensuring figure governmental fiscal stability while encouraging new development to utilize existing infrastructure and services wherever feasible in the County's urban areas.
- Adopt policies and goals that reflect the County's on-going commitment to consult and cooperate with federal, State, regional, and local agencies to plan for the long-term future of Kern County.
- Ensure the protection of environmental resources and the development of adequate infrastructure with specific emphasis on conserving agricultural areas, discouraging unplanned urban growth,

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Disciplinary Development Issues
November 2007

ensuring water supplies and acceptable quality for future growth, and addressing air quality issues.

- Revise the County's General Plan to reflect ongoing activities, changes in laws and regulations, and demographic characteristics of the community to ensure that the interests of the County in the health, safety, and welfare of residents and visitors are reflected in current policies and goals.
- Maintain compliance with the provisions of State Planning and Zoning Laws as they relate to General Plan requirements.

Biological resources in County of Kern once primarily consisted of native species. Over the past century, most of these native species have diminished as a result of urbanization and agricultural practices. These species that do remain, were capable of adapting to living in close proximity to people. As urbanization continues to expand, however, these remaining species may also diminish. There are several issues regarding the County's biological resources. A commitment to protecting and preserving these resources is an important issue. Balancing the need of a property owner desiring to develop his/her property, with the County's desire to protect plants and wildlife is a factor that must be considered.

The following Policies and Implementation Measures are particularly important to the County of Kern's planning area as listed within the Land Use/ Conservation/ Open Space Element:

Policies

27. Threatened or endangered plant and wildlife species should be protected in accordance with State and federal laws.
28. County should work closely with State and federal agencies to assure that discretionary projects avoid or minimize impacts to fish, wildlife, and botanical resources.
29. The County will seek cooperative efforts with local, State, and federal agencies to protect listed threatened and endangered plant and wildlife species through the use of conservation plans and other methods promoting management and conservation of habitat lands.
30. The County will promote public awareness of endangered species laws to help educate property owners and the development community of local, State, and federal programs concerning endangered species conservation issues.
31. Under the provisions of the California Environmental Quality Act (CEQA), the County, as lead agency, will solicit comments from the California Department of Fish and Game and the U.S. Fish and Wildlife Service when an environmental document (Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report) is prepared.
32. Riparian areas will be managed in accordance with United States Army Corps of Engineers, and the California Department of Fish and Game rules and regulations to enhance the drainage, flood control, biological, recreational, and other beneficial uses while acknowledging existing land use patterns.

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Disciplinary Development Issues
November 2007

Implementation Measures

- Q. Discretionary projects shall consider effects to biological resources as required by the California Environmental Quality Act.
- R. Consult and consider the comments from responsible and trustee wildlife agencies when reviewing a discretionary project subject to the California Environmental Quality Act.
- S. Pursue the development and implementation of conservation agencies for property owners desiring streamlined endangered species mitigation programs.

3.3.6 Metropolitan Bakersfield Habitat Conservation Plan (MBHCP)

Certain plant and animal species, and some plant and animal species communities may be considered "sensitive," according to guidelines established by the State and Federal Endangered Species Acts. The City of Bakersfield and County of Kern have determined that the appropriate approach to conservation of protected Biological Resources in the Metropolitan Bakersfield area is through the Habitat Conservation Planning process, which mitigates for urban development. In 1994, the City and County received permits under Section 10 (a) (1) (B) of the United States Endangered Species Act and Section 2081 of the California Endangered Species Act for incidental take of protected species in connection with development projects. The MBHCP and implementing agreements and ordinances provide a method of collecting funds for the acquisition and enhancement of Habitat Land for purposes of creating preserves. Development projects within the Metropolitan area may pay mitigation fees, which are used to buy habitat lands. These lands are managed by wildlife agencies or entities they approve. Take avoidance measures are also listed in the MBHCP.

The amount of habitat preserved must always outnumber the amount of land that is being developed. During the first six years of the MBHCP Program, 7,900 acres of habitat have been preserved. The effectiveness of the MBHCP is monitored through quarterly and annual reports provided to wildlife agencies.

The boundaries of the MBHCP study area closely match the boundaries of the Metropolitan Bakersfield General Plan Update, which comprise 408 square miles. Six distinct ecological communities have been identified within the Metropolitan Bakersfield Habitat Conservation Plan area. The general location of the ecological communities has been identified within the Metropolitan Bakersfield Habitat Conservation Plan area. The general location of the ecological communities and overall habitat quality of these communities are illustrated in Figures 5 and 6 of the MBHCP (available for review at the City of Bakersfield). These Communities include:

- Non-Native Grassland
- Valley Sing Scrub
- Sierra-Tehachapi Saltbush Scrub
- Valley Saltbush Scrub
- Great Valley Mesquite Scrub

- Southern Cottonwood-Willow Riparian Forest

3.3.7 Biological Critical Issues

- Potential habitat exists in the project area for several federal- and/or state-listed animal and plant species. Location of listed species would require compliance with Section 7 (if there is a federal nexus on the project) or Section 10 (no federal nexus) of ESA and Section 2081 of CESA.
- Location of these species during survey would initiate processes to ensure compliance with federal and state endangered species acts. This could include, but may not necessarily be limited to:
 - Initiating and invoking measures to avoid effects and protect the species on-site.
 - Providing buffer areas, construction limitations (activity and noise), and/or requiring limited operating periods.
 - Acquisition, protection, and restoration of habitat on adjacent areas.
 - Relocation of individuals to approved off-site locations.

3.4 CULTURAL RESOURCES

Limits on project development from cultural resources generally stem from three sources:

- If prehistoric or historic archaeological sites are present at the project site, the State Historic Preservation Office may require scientific excavation to recover data that would otherwise be lost during construction, as a mitigation measure. Depending on the depth and extent of the site, data recovery can be expensive. It may be possible to avoid significant archaeological sites by judiciously locating buildings, pipelines or structures. This often entails increased project costs.
- If buildings or structures on the property are found to be historic or architecturally significant, the State Historic Preservation Office may require that some form of documentation take place before demolition is permitted. This need not be expensive, however.
- Prehistoric archaeological sites, whether determined significant from a scientific point of view or not, may contain human burials. This issue is not necessarily complex from a regulatory point of view, since the law (Notification of Discovery of Native American Human Remains, California Public Resource Code §5097.98) simply requires a project owner to consult with a Native American "most likely descendant" when planning the disposition of the remains. This issue can become complex from a public relations point of view, however, since it is an emotionally charged issue to many Native Americans.

3.4.1 Site Archaeology

Data collected for site archaeology was based on a preliminary literature search and historical map review for the proposed project area. A pedestrian survey of the site was not conducted as part of the analysis of project critical issues. As a result of modern farming practices, both the surface and subsurface in the project area has been heavily disturbed. Any evidence of cultural resources over 40

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years in age has been obliterated. Although cultural resource site density is very minimal in surrounding areas, it is possible that deeply buried cultural deposits could be encountered during construction at any location within the Area of Potential Effect (APE). If resources are encountered during construction, adverse impacts could be substantial, depending on the significance of the cultural resource.

Archaeological research in the Southern San Joaquin Valley has been somewhat limited. Published cultural sequences for the area are therefore necessarily general in nature and consist of the description of time periods correlated with surrounding regions. The first record of contact with the Southern Valley Yokuts occurred in 1772 by a band of Spanish soldiers. In 1776, Francisco Garces arrived in the region. Attempts were made to establish missions in the region, but they were unsuccessful. When the U.S. annexed California the Valley was inundated with settlers and the extant cultural practices began to wane. The remaining Southern Valley Yokuts were initially sent to the Tejon and Fresno Reservations, but were later moved to the Tule Reservation in 1859. Modern land use in the region is the result of both agricultural and oil field development.

3.4.2 Archival Research Methods

An archival record search of the project area was conducted by the Southern San Joaquin Valley Archaeological Information Center at California State University, Bakersfield on September 24, 2007. The records search was conducted to determine the extent, if any, to which the current project area had been previously surveyed, and the number and type of cultural resources in the area and within the project limits. The archival search consisted of an archaeological and historical records and literature review for an area within a one-mile radius of the project. This record search provided background on the types of sites expected in the region, and covered the project Area of Potential Effect.

The records search resulted in the following:

- No known sites within the project area
- Three cultural resources within a one half mile radius

Heritage Properties (designated by State Federal commissions)

- No National Register Listed Properties
- No National Register Eligible Properties
- No California Historic Landmarks
- No California Points of Historic Interest

Historic resource reports for the project area include:

- California Historical Landmarks
- California Points of Historical Interest
- California Inventory of Historic Resources
- Directory of Historic Properties --Records entered into the OHP computer file of historic resources (9/19/07)

3.4.3 Cultural Resources Critical Issues

- An archaeological reconnaissance survey of the proposed project would identify any surface cultural remains and archaeological sites within the area of potential effect (APE) and whether or

not the project will result in a direct impact to any potential sites. Mitigation of potential project impacts to significant archaeological deposits located at the project site could involve some expense and an agency consultation process, or the need to design facilities to avoid the deposits.

3.5 GEOLOGY AND GEOLOGIC HAZARDS

3.5.1 Site Geology and Geologic Setting

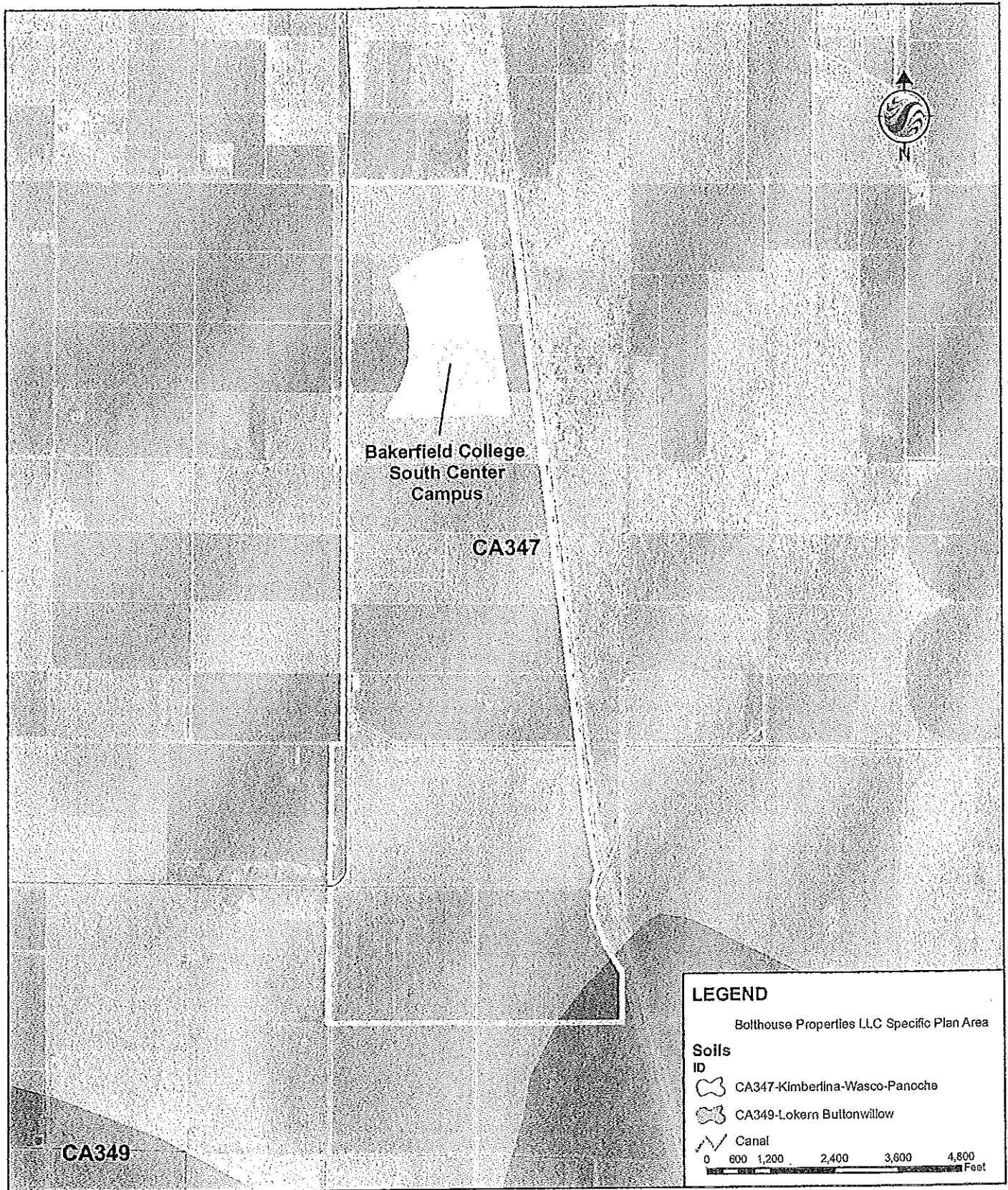
The proposed site is located just south of State Route 223 and four miles south of the City of Bakersfield, in the San Joaquin Valley, within the Great Valley Geomorphic Province of California. This province is bounded by the California Coast Range to the west and the Sierra Nevada Mountains to the east. The San Joaquin Valley comprises the southern two-thirds of the province, and stretches from the Cosumnes River, just south of Sacramento, to the Tehachapi Mountains, south of Bakersfield. Most of the surface of the Great Valley province is covered by recent and Pleistocene-age alluvium. Floodplain deposits in the San Joaquin Valley have occurred over thousands of years as the Kern, and associated river tributaries overflow their banks. Each new overflow deposits recent sediments on the surface, burying the older soils beneath it. However, as the Sierra Nevada Mountains continue to be uplifted relative to the Valley, deposits nearer the Valley edge are thus slightly raised so that the older soils are preserved and exposed at the surface. The sedimentary rocks are mainly Cretaceous. The depth of the sediments varies from a thin veneer at the edges of the valley to depths in excess of 50,000 feet.

The surface soils in the vicinity of the project site are developed on the older deposits of Pleistocene alluvium and consists of fine sandy loam and loamy sand. Runoff is slow and the hazard of water erosion is slight. The wind erosion potential is low and can be managed by maintaining adequate vegetation cover. (USDA Soil Conservation Service 1988.) The toposequences identified on the project site provide predictable trends in soil make-up that are suitable for the proposed development. The Bolthouse Properties LLC specific plan project site is underlain by two soil types: Kimberlina-Wasco-Panoche, and Lokern-Buttonwillow according to the U.C. Davis Soil Resource Laboratory, online soil map. Please see Figure 3-5 Soil Survey Map.

The Bakersfield area, like most of Kern County, is in an area of high seismic activity, classified by the state as Seismic Hazard Zone 4, the zone of highest risk. The Project site is not, however, located on any fault zones according to USGS maps of California faults (California Geological Survey, April 2007). See Figure 3-6 Fault Zone Map.

The City of Bakersfield is on the State's Alquist-Priolo Earthquake Fault Zones list, but the quadrangles affected are Oil Center and Rio Bravo Ranch of which the project site is several miles removed from. The closest active or potentially active faults that could significantly affect the site are the Edison and Kern Front faults, which are located respectively 10 and 11 miles from the proposed campus site. Other nearby faults capable of producing significant ground shaking at the Bolthouse Properties LLC specific plan area include the White Wolf (10 miles away), the Pleito (19 miles away), the San Andreas (29 miles away), and the Garlock (32 miles away).

The project site is located in an area known to have shallow groundwater. The presence of shallow groundwater (usually within 50 feet of the earth's surface) is one of the contributing factors to liquefaction,






LEGEND

Bolthouse Properties LLC Specific Plan Area

Soils

ID

-  CA347-Kimberlina-Wasco-Panoche
-  CA349-Lokern Buttonwillow
-  Canal

0 600 1,200 2,400 3,600 4,800 Feet



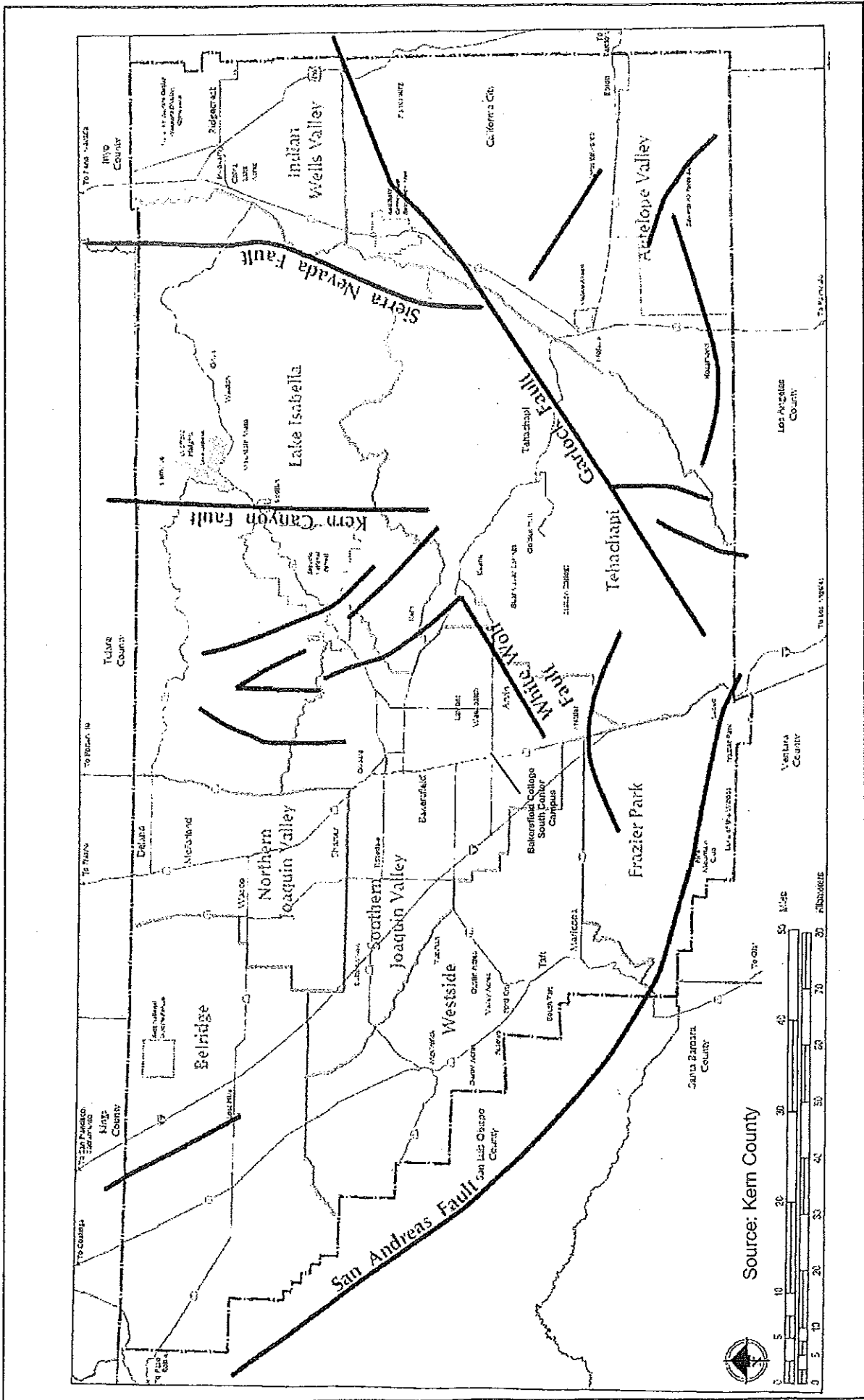
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Figure No. **3-5**

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**BOLTHOUSE PROP. LLC
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 SOIL SURVEY MAP**
 NOVEMBER 2007



Source: Kern County

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Figure No. **3-6**

Title

**BOLTHOUSE PROP LLC
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 SOUTH CENTER CAMPUS
 FAULT ZONE MAP**
 NOVEMBER 2007

a process that takes place during some earthquakes that may lead to ground failure. Generally, the younger and looser the sediment and the higher the water table, the more susceptible a soil is to liquefaction. Groundwater within the project site can be within 15 feet of the land surface.

3.5.2 Geology and Geologic Hazards Critical Issues

- Current construction and siting standards will mitigate seismic risks associated with the proposed project site.
- The project will be required to meet the safety standards listed in the Uniform Building Code (UBC). Best Management Practices (BMPs) for control of erosion will be required as part of the City of Bakersfield or Kern County grading and building permits to reduce erosion of soils on the project site.
- A detailed geotechnical survey will be completed prior to construction of the proposed project, and grading, soil compaction, and structural design will be implemented in accordance with the recommendations of the geotechnical report. No issues are anticipated regarding soils of the project site.

3.6 PALEONTOLOGICAL RESOURCES

3.6.1 Paleontological Resources

As a result of modern farming practices, both the surface and subsurface in the project area has been heavily disturbed and contains no known historical resources (there are no buildings on the site constructed before 1967). The topography of the site is relatively flat and there are no unique geological features in the vicinity of the specific planning area. Construction of the proposed Bakersfield College South Center Campus will not destroy any unique geologic or paleontological structures because excavation is not expected to incorporate deep cuts within a sensitive paleontological area. The only unique paleontological resource identified in the Metropolitan Bakersfield area is the Shark Tooth Mountain bone bed, and the Bolthouse Properties LLC specific planning area is not located in or near this area. Moreover, the Metropolitan Bakersfield General Plan EIR (MBGP EIR) indicates that the Metropolitan Bakersfield area, including the proposed campus site, is immediately underlain by sediments and rocks of quaternary age. Geologic records for metropolitan Bakersfield indicate that the area is underlain by recent alluvial deposits at all depths likely to be reached by excavations associated with development. The MBGP EIR indicates that these alluvial deposits appear to be too young to contain significant fossil remains. Therefore, the proposed campus site is not expected to impact paleontological or unique geologic resources.

3.6.2 Paleontological Critical Issues

No critical issues associated with paleontological issues in anticipated.

3.7 HAZARDS AND HAZARDOUS MATERIALS

In California, U.S. EPA has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (Cal EPA). In turn, a local agency, the

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Disciplinary Development Issues
November 2007

Environmental Health Department (EHD) of Kern County, has been granted responsibility for implementation and enforcement of many hazardous materials regulations in Kern County under the Certified Unified Program Agency (CUPA) Program (California Health and Safety Code Chapter 6.11).

In California, regional agencies are responsible for programs regulating emissions to the air and surface and groundwater. At the project site, the San Joaquin Valley Air Quality Control District has oversight over air emissions, and the Central Valley Regional Water Quality Control Board (CVWQCB) regulates discharges and releases to surface and groundwater.

3.7.1 Agricultural Operations

Agricultural operations on the project site may have resulted in contamination of the soil and/or groundwater. Potential hazardous materials issues at the proposed project site should be evaluated in a Phase I/Phase II Environmental Site Assessments (Phase I/II). A Phase I/Phase II would include reviews of historical land use information, site surveys, interviews with persons familiar with the property, review of regulatory information regarding hazardous materials, and collection and laboratory analysis of soils samples. To evaluate soil quality on the project site, soil samples should be taken from throughout the project area to evaluate shallow soil for the presence of residual organochlorine pesticides. Samples should be taken at a depth of 0 to 6-inches below ground surface. In addition, to the Phase I/Phase II Environmental Site Assessments, a Potentially Hazardous Agriculture-Related Chemicals Study should be performed. The investigation should be required to address those portions of the project site that carry great potential for past chemical contamination, such as near past or present sites of chemical storage. Storage of diesel fuel for Agricultural Irrigation Pump operations on the project site has also resulted in some contamination of surface soils. Please see photo log concerning one 10,000 gallon diesel storage tank located on the west side of the planning area approximately one mile south of State Route 228.

3.7.2 Navigable Airspace Hazards

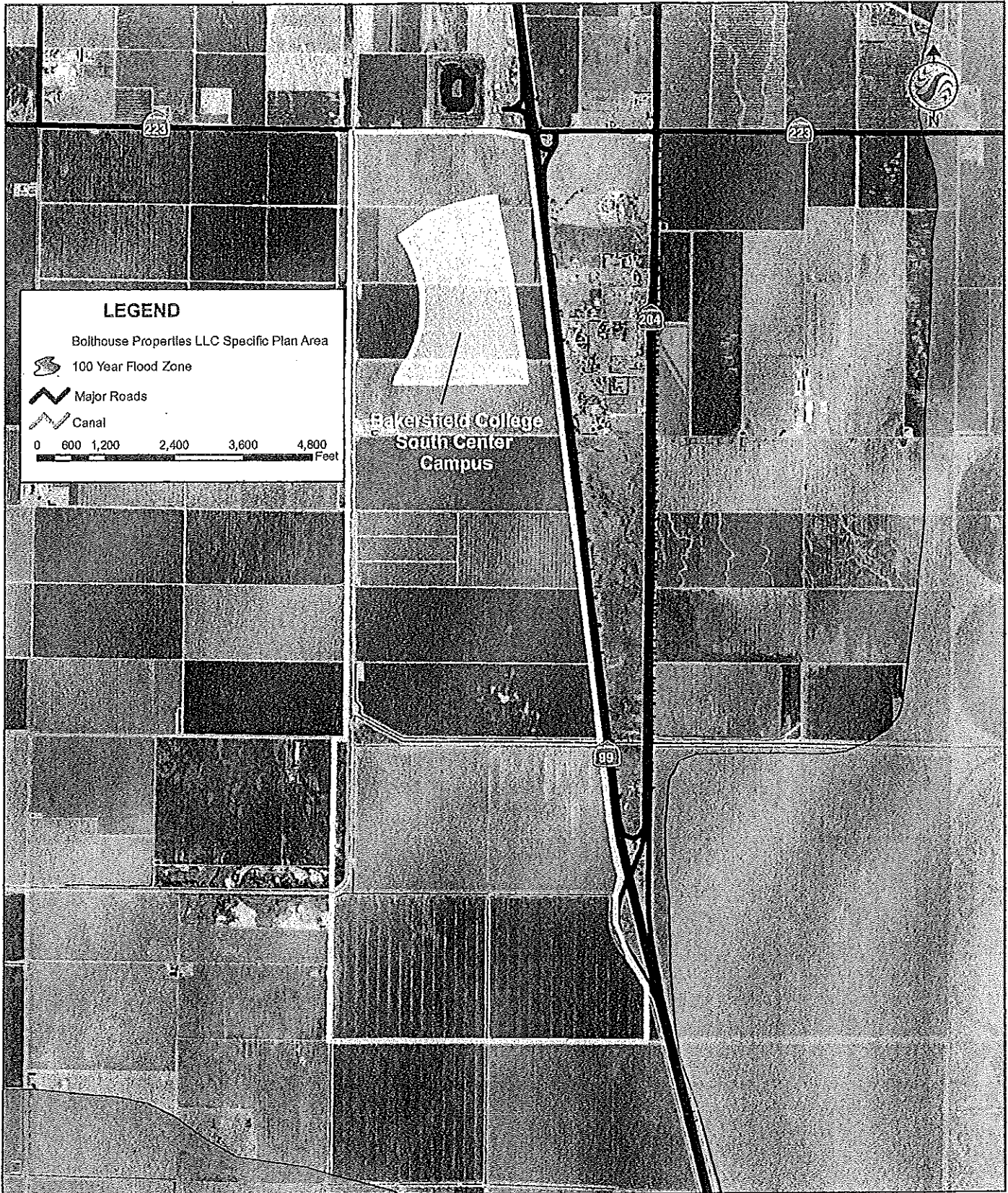
There are no airspace hazards for this project site. The nearest airports to the project site is Meadows Field which is located on the north end of the Metropolitan Bakersfield Area approximately 10 miles north of the Bolthouse Properties LLC proposed specific plan area and the Kern County Taft Airport located approximately 10 miles to the west of the proposed specific plan area. These distances do not trigger the FAA notification requirement. There are no known heliport facilities within the project area.

3.7.3 FEMA Flood Zones

The specific plan area does not have a natural stream or drainage way within the study area boundaries. Only body of the water on the project site is the Kern Island Canal which is not a factor for flooding, since the flow of water in the canal can be turned off in the event of a levee failure. The closet FEMA flood zone is located approximately 3 miles from the proposed Bakersfield College South Center Campus site. Please see Figure 3-7 FEMA Flood Zones Map.

3.7.4 Nearby Dairy Operations and Vector/Fly Issues

The nearby dairy operations may have a significant effect on the proposed campus site and resulting urban land uses called for by the proposed specific plan on the Bolthouse Properties. (Please See Figure



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**BOLTHOUSE PROP LLC
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 FEMA FLOOD ZONE MAP
 NOVEMBER 2007**

3-8: Dairies/Cattle Yards Location Map) Nuisance flies are commonly associated with confined animal agricultural facilities such as dairies because they breed in the manure, animal feed, and other organic materials found on these facilities. As urbanization continues in the San Joaquin Valley, the dispersal of flies from their developmental sites on dairies and other confined animal facilities into residential neighborhoods is becoming more of a problem. Currently, nuisance fly dispersal behavior is poorly understood and difficult to predict. According to Alec Gerry, Ph.D., University of California, Riverside, Entomology Department, flies move randomly, not with the wind. Fly numbers will be higher at sites with harborage or food, but there is no way to know at what distance from such site flies make a determination to fly there. Because flies move randomly, it becomes impossible to predict if the flies will impact any offsite area such as the proposed campus site.

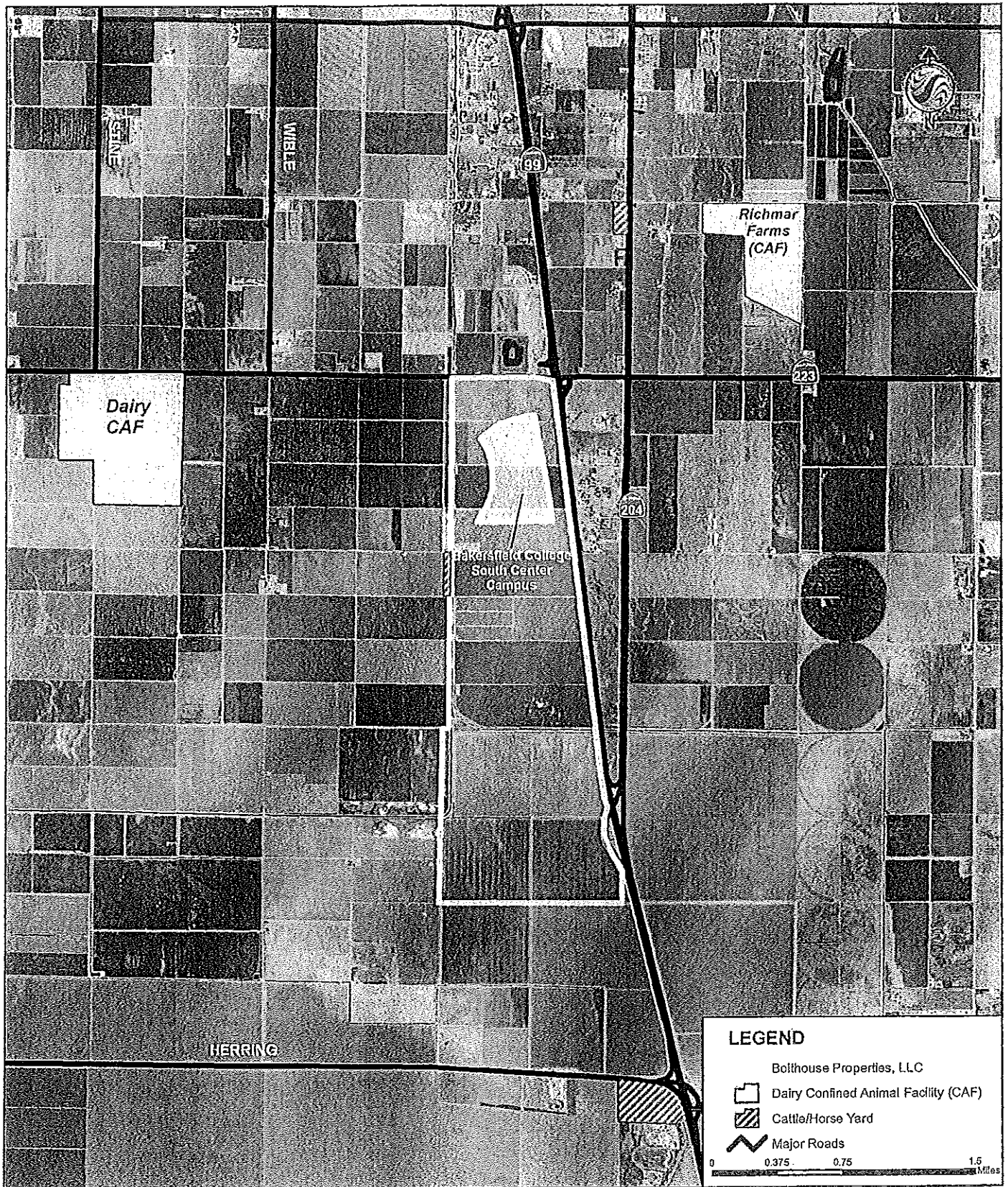
Given the random movement of flies, control of fly development is the only effective means to prevent nuisance fly problems at nearby residences and sensitive receptors. Nuisance flies are limited by strict adherence to proper facility design and management considerations and by rapid correction of problem areas. While nuisance fly management is critical to the effective operation of any confined animal facility, it must also be understood that a goal of zero production of nuisance flies is unattainable. At even the most sanitary animal facilities, there will always be some small number of nuisance flies that manage to find an appropriate development site.

Integrated Pest Management Plans (IPMP) for flies are the common accepted approach to controlling nuisance fly populations. Generally, IPMP's result in a reduction of 50 percent in the number of flies at dairy farms as compared to what would be expected at a dairy without an IPMP in the same geographical area. IPMP's include such elements a facility design and construction attributes, management practices, pest control and monitoring, all focused on breaking the past life cycle and population reduction. IPMP's typically include releases of parasitoids, manure management, the use of an action threshold, and the judicious use of insecticides. Manure management is an integral component of a sanitation program with IPMP's. IPMP's practice sanitation by removing and spreading fly breeding materials each week, stressing the importance of breaking the life cycle. After inspection of the nearby dairy facilities it appeared both dairies were practicing IPMP's.

Fly Cycle and Habits

Nuisance flies have a life cycle comprised of an egg, three larval, a pupal, and an adult stage. Eggs are laid by a mature female fly onto a substrate that would be appropriate for the development of the young larvae. A single female can lay hundreds of eggs during her life. The length of time required to complete the development from egg to adult is temperature dependent, and may be as short as seven days during the summer months in the San Joaquin Valley.

Adult flies are generally active during daylight hours and inactive at night. During the day, flies may be noted resting on vertical surfaces such as walls and support structures. This resting behavior is a means to regulate their body temperature. Flies will preferentially rest on white or light colored surfaces that are in direct sunlight on cold days or are in shade on hot days. Nuisance flies are known to disperse from their development sites into surrounding areas. However, the distance and direction of dispersal are not well understood and are likely determined by many environmental and geographical conditions. Non-biting nuisance fly species are likely to disperse further from the dairy site than those fly species that require animal blood meals. The habitat surrounding a dairy site will likely also play a role in the distance



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Figure No. **3-8**

Title
**BOLTHOUSE PROP. LLC
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 SOUTH CENTER CAMPUS
 DAIRYS/CATTLE YARD
 LOCATION MAP**
 NOVEMBER 2007

of nuisance fly dispersal. Nuisance flies will likely disperse further in open habitats typical of rangeland and low agricultural crops, such as found surrounding the proposed campus site, than they will in urban or forested/orchard areas that contain substantially more vertical structure on which flies may rest and which provide shade and higher humidity on hot summer days. However, there is no scientific basis for predicting fly dispersal. Studies using marked house flies show 85 percent to 95 percent were caught within two miles of the release site within the first four days after they were turned loose. A few flies have been shown to travel further, but in general, fly control efforts for a community problem are focused within two miles of the source. Again dispersal was random.

Dairy Operations and Mosquito Abatement

One of the most prevalent mosquitoes in California is the *Culex tarsalis* mosquito, which by instinct feeds upon wild birds and domestic fowl. In the absence of sufficient avian populations, they will feed on cattle, horses and humans. This species breeds in the wastewater lagoons of dairies and is the primary vector transmitting Western Equine and St. Louis viruses, forms of infectious encephalitis.

The southern house mosquito, *Culex pipiens quinquefasciatus*, is so named because it enters the house and bites indoors. It thrives in urban areas and is closely associated with human activities and dwellings. The larvae of this species can tolerate extremely foul or polluted waters and flourish in dairy wastewater lagoons. Adult mosquitoes infected with the encephalitis virus have been found in California.

3.7.5 Hazards and Hazardous Materials Critical Issues

- There are no airspace hazards associated with this project site.
- There are no FEMA flood hazards identified for the project site.
- Agricultural operations may have resulted in contamination of the soil and/or groundwater. Phase I/II Environmental Site Assessments should be performed to protect KCCCD from any future environmentally related liability.
- Nearby dairy operations may require new levels of fly management to control vectors and fly nuisance at the proposed campus site. Environmental conditions such as temperature, rainfall, humidity, and wind speed all affect fly abundance and dispersal. Fly issues is a critical issue for developing a campus on the Bolthouse Properties site which will require future study and cooperation with nearby dairy operations to ensure nuisance flies can be controlled to a level of acceptance.

3.8 LAND USE

This section considers compatibility of the proposed Bakersfield College South Center Campus and surrounding specific plan with existing land uses at and surrounding the site and consistency of the proposed project with existing land use plans, zoning and other development regulations.

3.8.1 Regulatory Context

There are several regulatory documents that serve as a guide for land use and development on the Bolthouse Properties specific plan area. The following review of these documents is limited to the City of Bakersfield since the proposed project is reliant on annexation and upon incorporation into the City of Bakersfield will be governed by Bakersfield regulations, and policies. Without annexation to the City or at the very least amendment of the sphere of influence to be included into the Metropolitan Bakersfield General Plan Area it is unlikely the existing Kern County General Plan can be amended to support urbanization of the proposed Bolthouse Properties specific plan area. In meetings with the Kern County Planning Department (early September) the planning staff was not supportive of moving the sphere of influence and subsequent urban development line more than one mile south of Bear Mountain Boulevard. Planning staff stated it would be very difficult to make the findings necessary to support a sphere of influence boundary amendment or general plan amendment from Intensive Agriculture to Specific Plan Area for the entire Bolthouse Properties specific plan area.

The project site is located in Kern County and as part of the development process, the City would annex this area into the City, or Kern County Local Agency Formation Commission (LAFCO) would amend the Sphere of Influence for the City of Bakersfield to allow the Metropolitan Bakersfield General Plan to become the governing planning document for the project site and providing justification for Kern County to adopt a Specific Plan Area to the Kern County portion of the Metropolitan General Plan through the general plan amendment process.

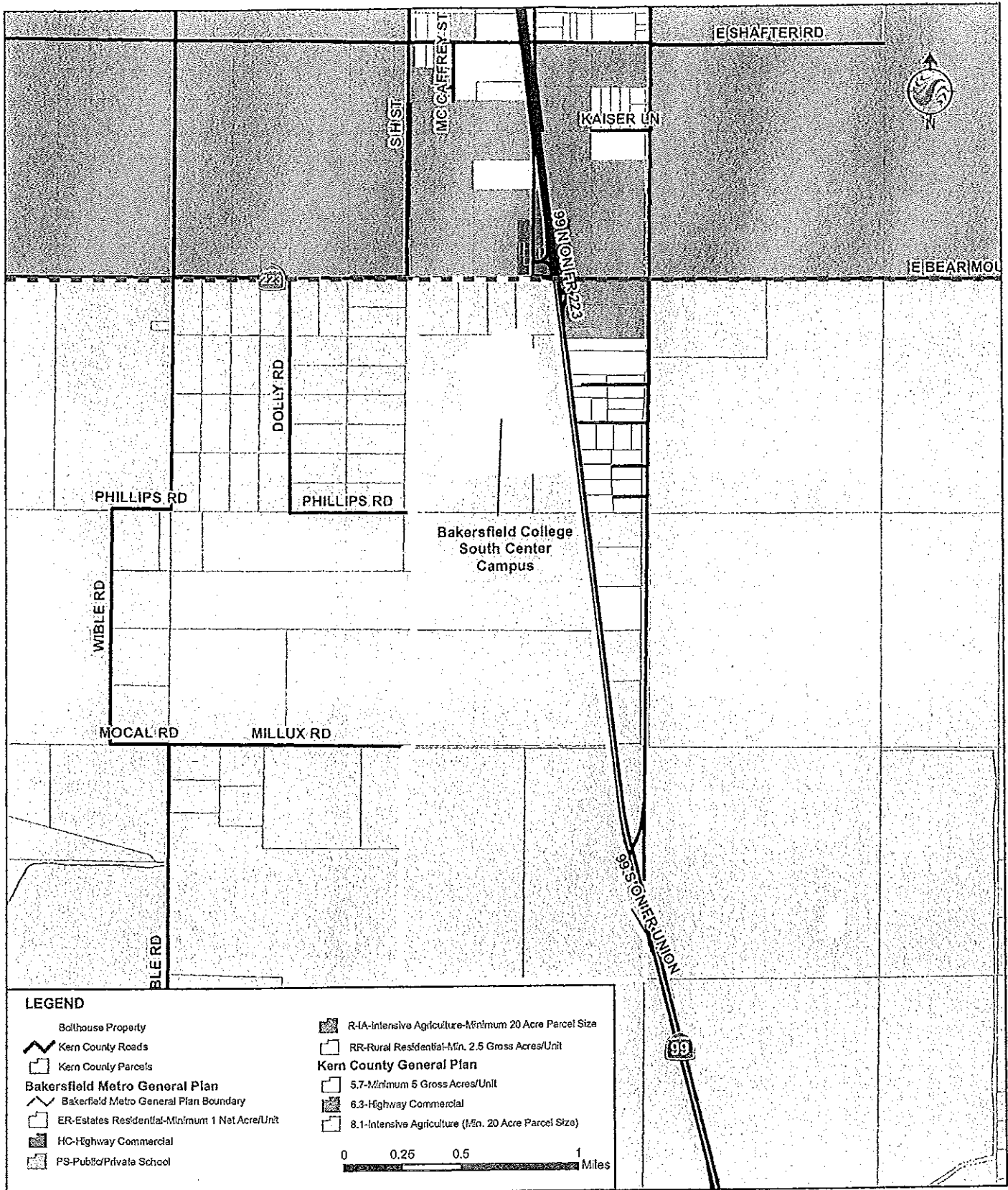
3.8.2 Metropolitan Bakersfield General Plan

Background

The Bakersfield College South Center Campus and Bolthouse Properties Specific Plan is located within the County of Kern General Plan and immediately south of the Metropolitan Bakersfield General Plan Planning Areas. (see Figure 3-9 General Plan Map)

The Metropolitan Bakersfield General Plan covers approximately 408 square miles of unincorporated county area along with the incorporated City of Bakersfield. The area outside the City boundaries of Bakersfield are within the Sphere of Influence or have a relationship to land use issues to the County of Kern and the City of Bakersfield. The General Plan is a comprehensive first step towards Community unification. The General Plan also serves as a "blueprint" for future growth by providing long-term policy guidelines for the City's/County's physical, economical, social, and environmental changes. Currently, the Metropolitan Bakersfield General Plan planning area boundary stops at the northside of Bear Mountain Boulevard (State Route 223).

The proposed project site is not covered by the Metropolitan Bakersfield General Plan and thus the KCCD and Bolthouse Properties LLC will need to request a Sphere of Influence boundary amendment to allow the Metropolitan Bakersfield General Plan to govern the project site and provide for the ability to amend the plan and perhaps seek annexation in the future. Land Use designations such as Public and Private Schools, Low Density Residential, High Medium Density Residential, General Commercial Mixed Use Major/Office Commercial, Highway Commercial and Parks and Recreation Facilities will be necessary to allow the proposed development and college campus. The proposed campus and



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 Title:

**BOLTHOUSE PROP LLC
 BAKERSFIELD COLLEGE
 SOUTH CENTER CAMPUS
 GENERAL PLAN MAP
 NOVEMBER 2007**

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CRITICAL ISSUES REVIEW / FEASIBILITY REPORT BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS

Disciplinary Development Issues
November 2007

surrounding community within one mile of the Metropolitan Bakersfield Sphere of Influence boundary is not deemed to impair the integrity or the character of the area in which the land lies.

Current Land Uses

A total of 20 parcels are located adjacent to or within 500 feet of the proposed Bakersfield College South Center Campus site of 120 acres. Land uses adjacent to and surrounding the proposed campus site include the following: row crops, cattle yard, highway commercial, vacant land, farm equipment storage yard, and freeway corridor (State Route 99).

3.8.3 Zoning Classifications

The City of Bakersfield Zoning Ordinance is intended to provide a guide for the physical development of Bakersfield and to encourage the appropriate use of land, and the Zoning Map identifies different zoning districts. As the project area is not within the City of Bakersfield jurisdictional boundary, zoning designations have not been identified. All parcels identified for annexation will be rezoned as part of an annexation request to the City of Bakersfield by the KCCD and Bolthouse Properties LLC. In order to achieve the objectives of specific plan and development of a college campus the KCCD and Bolthouse Properties LLC could request the zoning classification "Planned Unit Development Zone" to allow the flexibility of land use to accommodate a campus centered community.

If annexation is not achievable than a Special Planning District zoning classification within Kern County associated with a Specific Plan adopted by the County as an amendment to the Metropolitan Bakersfield General Plan would be appropriate to establish flexible alternatives for future community design. The "Special Planning" district is designed to accommodate various types of development such as neighborhood and community shopping centers, grouped professional and administrative office areas, senior citizens' centers, multiple housing developments, commercial service centers, schools and other public facilities, industrial parks or any other use or combination of uses which can be made appropriately a part of a planned development. In a "Special Planning" zoning district, any and all uses are permitted; provided, that such use or uses are shown on the development plan as approved by the county.

3.8.4 Land Use Critical Issues

- City Staff indicated that the proposed use would not be unreasonably incompatible with or injurious to surrounding properties, or detrimental to the health and general welfare of persons residing or working in the vicinity.
- County Staff and City Staff have provided favorable consideration of the proposed Campus site, however, they hold reservation to amend the Intensive Agricultural General Plan Designation beyond one-mile from the existing Sphere of Influence boundary established at Bear Mountain Boulevard (State Route 223).
- KCCD and Bolthouse Properties LLC will need to work with the City, County, and the Kern County Local Agency Formation Commission (LAFCO) to ensure the proposed project falls within

the City of Bakersfield Sphere of Influence, to allow a Metropolitan Bakersfield General Plan Amendment or future annexation to the City of Bakersfield.

3.9 VISUAL RESOURCES

Although the project site lies at the urban fringe of Bakersfield against a backdrop of an agricultural vista of row crops, and lies in a viewshed of low to moderate quality, it is unlikely that the project would cause a significant adverse visual resource impact. Some views of the proposed campus and related facilities are somewhat sensitive, and visual resources is likely to be seen by government officials and the general public as one of the most important permitting and entitlement issues for the project. Potential project impacts could be mitigated below the level of significance by landscaping alone and should not require architectural screening.

3.9.1 Significance Criteria

The visual analysis performed for this study considered the dominant elements of the proposed campus and related facilities in the context to the site and CEQA Guidelines for significance. The dominant visual elements of the proposed facility would be the classroom buildings, sporting fields, commercial development, residential development and lighting associated with such development. The California Environmental Quality Act defines a "significant effect" on the environment to mean a "substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including...objects of historic or aesthetic significance." California Environmental Quality Act Guidelines list the following four questions:

- *Would the project have a substantial adverse effect on a scenic vista?*
- *Would the project substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within the state scenic highway?*
- *Would the project substantially degrade the existing visual character or quality of the site and its surroundings?*
- *Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views of the area?*

In addition, the CEQA Guidelines, under the Land Use and Planning Section, pose the question of whether the project would conflict with any applicable land use plan, policy, or regulation (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purposes of avoiding or mitigating an environmental effect.

3.9.2 Visual Quality

The project site and surrounding landscape has a low to moderate visual sensitivity. Views to the south and north are essentially flat, except for the slight relief of associated with State Route 99 and the overpass. Views to the west are of agricultural vista and the Kern Island Canal for a short period, then the dairies with large shade structures. The overall visual quality of the project site is lowered by the

rather flat terrain, the agricultural facilities which surround the project site, and the neighboring highway commercial (truck stop).

Just to the west of the project site is the Kern Island Canal which limits the site distance from the proposed campus site due to the canal levee. North of the project site is a highway commercial area dominated by a truck stop and the State Route 223/99 Interchange. Immediately east of the project site is State Route 99 freeway which limits the site distance due to vegetation and freeway infrastructure. South of the project site is more agricultural vista with the Grapevine in the foreground.

3.9.3 Viewer Sensitivity and Visibility

Sensitive viewers include, in particular, residential viewers and recreational viewers. Commuters are not considered sensitive viewers, though travelers to recreational sites are considered sensitive viewers.

There is a residential property bordering the project site to the northwest. This resident currently has a view of the existing highway commercial development and the levee of the Kern Island Canal. Once the campus was developed the view would be slightly changed by roof tops that would be visible from this residence. Directly to the south of the project site is approximately three miles from the proposed campus is some rural farm housing. Due to the site distance from this housing the view of the proposed campus would be small and distant. Those individuals living in neighboring dwellings have had a view of highway commercial, cattle yard shade structures and a major transportation infrastructures (freeway, and interchange bridges) for numerous years, so the addition of the proposed development will not represent a new type of visual intrusion.

State Highway 223 is a rural commuter route that runs along the northern border of the project site. This east/west rural highway will have a clear view of the project site as it currently exist. Highway streetscape is expected to screen motorist's views to a less than significant level.

3.9.4 Consistency with Plans, Policies and Regulation

The proposed project will not degrade the existing visual character or quality of the site or its surroundings, as the area has long been a transition area between industrial, residential, and agricultural character. Views from key observation points that may be sensitive to the visual impacts can be mitigated by landscaping to meet viewers' expectations in accordance with the Metropolitan Bakersfield General Plan and City and County Zoning Ordinances.

3.9.5 Visual Resources Critical Issues

- A community college campus and surrounding village development on this site would not cause significant visual impacts that could not be mitigated. Although concerns about views from nearby residents may arise, it would be difficult to justify a finding of significant impact under CEQA from any of these viewing areas.
- None of the views in the project area would be classified as scenic vistas.
- The project site is not located within the viewshed of a scenic highway.

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Disciplinary Development Issues
November 2007

- Light and glare impacts will increase but can be mitigated by following standard requirements for lighting such as directional shields, and limiting the number of lights.

3.10 NOISE

This section describes existing noise conditions in the vicinity of the site, describes criteria for determining the significance of noise impacts, and estimates the likely noise that would result from construction activities, vehicular traffic, aircraft, and other noise sources. No critical issue is anticipated regarding noise.

3.10.1 Project Noise Setting

The proposed project site is located on the southern edge of Metropolitan Bakersfield, immediately adjacent to the west of State Highway 99. The proposed project site fronts State Highway 223 within an area characterized by agricultural, residential, and highway commercial land uses, including dairies, and a truck stop.

The two main documents dictating land use policy for the City of Bakersfield and County of Kern is the Metropolitan Bakersfield General Plan and the City and County ordinances (as amended periodically).

The proposed campus will be shielded from highway noise by a buffer of development which will range between 500 feet to 2,000 feet from the two highways which generate line noise from vehicles. The conceptual plan placing the campus in the center of urban development will insure traffic noise does not become a significant issue with the campus setting either outdoors or indoors.

The current noise environment surrounding the proposed project site consists of noise contributed by several commercial highway and agricultural operations in the area such as the Bear Mountain Truck Stop, agricultural pumps, and confined animal facilities. Noise is also generated from traffic on the local roadways. State Highway 99 is located approximately 500 feet east of the proposed campus site and is a major source of noise in the area. State Highway 223 fronts the proposed project site and carries large volumes of traffic contributing to the noise levels. Typical Ldn levels produced by State Route 99 traffic average Ldn levels of 75 dBA. It is anticipated the development buffer between the campus site and State Route 99 will shield the noise and result in anywhere between 20 to 25 dBA in Ldn levels.

3.10.2 Applicable Noise Standards

The community noise environment consists of a wide variety of sounds, some near and some far away, which vary over the 24-hour day. The Community Noise Equivalent Level (CNEL) measure is used in this report. The Kern County noise standard is 65 dB outside and 45 dB inside.

For transportation noise sources (roadways, rail lines, etc.), the Kern County Noise Element establishes land use compatibility criteria of 65 dB Ldn for exterior noise levels and 45dB Ldn for interior noise levels within "sensitive" land uses, which include residential and college campus areas. For noise sources not related to transportation (e.g. industries), Kern County applies noise criteria based on the statistical distribution of noise over time.

3.10.3 Anticipated Project Noise Levels and Mitigation Measures

The proposed campus centered community typically have little equipment or activities that produces significant noise. Classrooms, residential housing, and crop land do not produce significant noise. Public Announcement Systems on campus can produce significant noise, but this noise can easily be contained with barrier walls or directional focus of speakers.

The traffic noise generated by State Highway 99 and 223, will be the major source of noise associated with the project. A detailed study will be required to determine noise control measures necessary to achieve the local noise requirements and minimize the noise impact on nearby residences, classrooms, and recreational areas. These control measures could include sound wall along State Highway 99, and sound-insulated school buildings or setbacks.

3.10.4 Noise Critical Issues

- By conducting a detailed noise study of the area, consulting further with City, County, and Caltrans staff, and designing the project with appropriate noise control measures, noise should not be a limiting factor for successful project development.

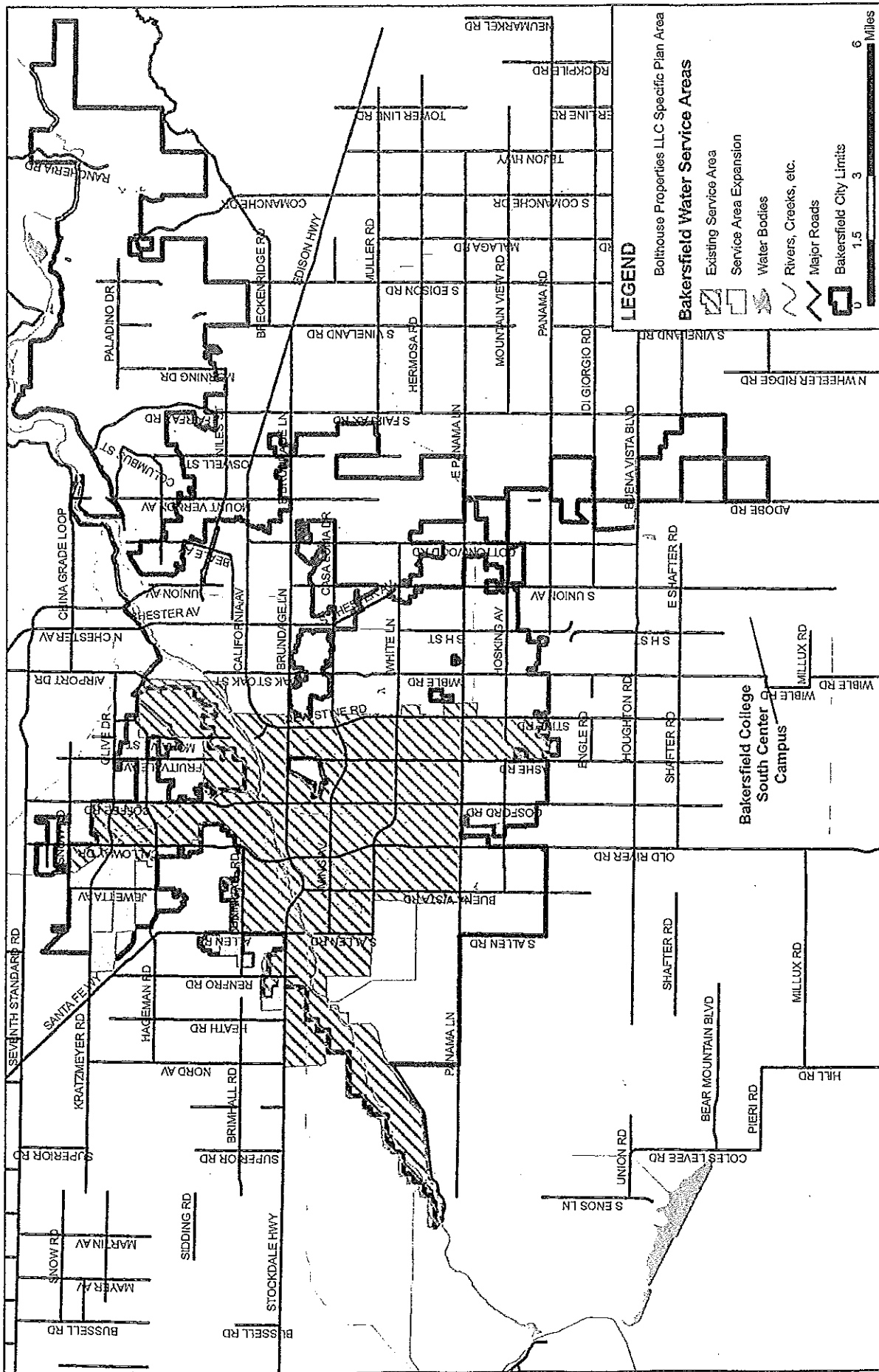
3.11 WATER SERVICE

The primary factor limiting development in the unincorporated County areas is the availability of domestic water. Water is served to the public by various water purveyors consisting of public and private water systems, County Service Areas, Community Services Districts and other sources. These are generally considered large water systems and are usually located in built-up urban and suburban areas. In addition, there are numerous private water companies in the County that supply water to fewer customers (four or more connections); these systems are usually in suburban and rural areas. Lastly, water wells serving one user are often prevalent in the rural areas of the County. Domestic wells, whether public or private require permits from County Environmental Health Services.

Currently, the project site is not serviced by any domestic water system and like sewer service will require either an on-site water system or connection to an existing domestic water system in the City of Bakersfield or Lamont Public Utility District (PUD). The nearest connection to the City of Bakersfield Water System is off of Taft Highway located four (4) miles north of the project site. (See Figure 3-10: Bakersfield Water Service Area Map) The Lamont PUD Water System is more than six miles away from the project site and does not have the capacity to service the project site.

3.11.1 General System Expansion

The City of Bakersfield Urban Water Management Plan foresees the continued growth of the Metropolitan Bakersfield Planning Area and providing domestic water services by expanding the system to the present sphere of influence which comes to Bear Mountain Boulevard. Additional water will be needed to meet the growth of the entire Metropolitan Bakersfield General Plan Planning area. These supplies will be met with additional groundwater wells along with future 10 to 20 million gallons per day (mgd) surface water purification plants. A new 10 mgd micro-filtration membrane water purification plant was completed



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Client/Project: KERN COMMUNITY COLLEGE DISTRICT
 Figure No: **3-10**

Title: **BOLTHOUSE PROP LLC BAKERSFIELD COLLEGE SOUTH CENTER CAMPUS BAKERSFIELD WATER SERVICE AREA MAP**
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Disciplinary Development Issues
November 2007

approximately one year ago. The City's planned service area will be in areas that have been under general agricultural use; thus a trade in water usage from agricultural to urban will take place.

The City of Bakersfield owns Kern River water and Lake Isabella Reservoir storage rights. According to the Bakersfield Urban Water Management Plan there is adequate water supply for the Sphere of Influence boundary area. The City of Bakersfield estimates that each acre of urban development demands a supply of 1.25 acre feet per acre. Thus, the proposed college campus and surrounding development immediately adjacent to Bear Mountain Boulevard would require an additional 800 acre feet of water assuming 640 acres were allowed to be included in the Metropolitan Bakersfield General Plan Planning area.

The City of Bakersfield can offer Mainline Extension Contracts to KCCD or Bolthouse Properties LLC for extending the city water system to the proposed college campus site and surrounding development. The contracts are patterned after Rule 15 of the California Public Utilities Commission.

3.11.2 Water System

The City of Bakersfield water system derives 100% of its water supply from groundwater wells located throughout the service area within Metropolitan Bakersfield. Currently, there are 61 wells in production, which produce approximately 36,000 acre feet of water annually. The water system is 100% metered. The City of Bakersfield owns Kern River water and Lake Isabella Reservoir storage rights. The city water distribution system includes over 750 miles of network water pipes. The city water system also owns and operates 2,800 acres of recharge ponds along the Kern River on the west side of the City. The California Water Service Company operates the City's water system under contract for the City of Bakersfield.

3.11.3 Water Service Critical Issues

Connection of the Project Site to the City Water Supply System

The project site does not currently have water conveyance infrastructure connected to the City water supply system. There is an adequate water line located beneath Taft Highway and South "H" Street approximately 4 miles north of the project site.

Based on projected Water Demand from proposed residential, college campus, and commercial land uses, the proposed project will demand approximately 349,438 gallons per day (gpd) of water. The required infrastructure for connecting the project site to the city (pipeline, pump station, and storage tank) is estimated to cost in the range between \$1,600,000.00 and \$2,100,000.00.

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CRITICAL ISSUES REVIEW / FEASIBILITY REPORT
BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS
 Disciplinary Development Issues
 November 2007

Table 3-6. Water Demand

	Water Demand
Development Immediately Surrounding College Campus	
gpd for estimated EDU	144,375 gpd
gpd for assumed campus	200,000 gpd
gpd for commercial acre irrigated	<u>5,063 gpd</u>
TOTAL PROJECT	349,438 gpd

Table 3-7 Peaking

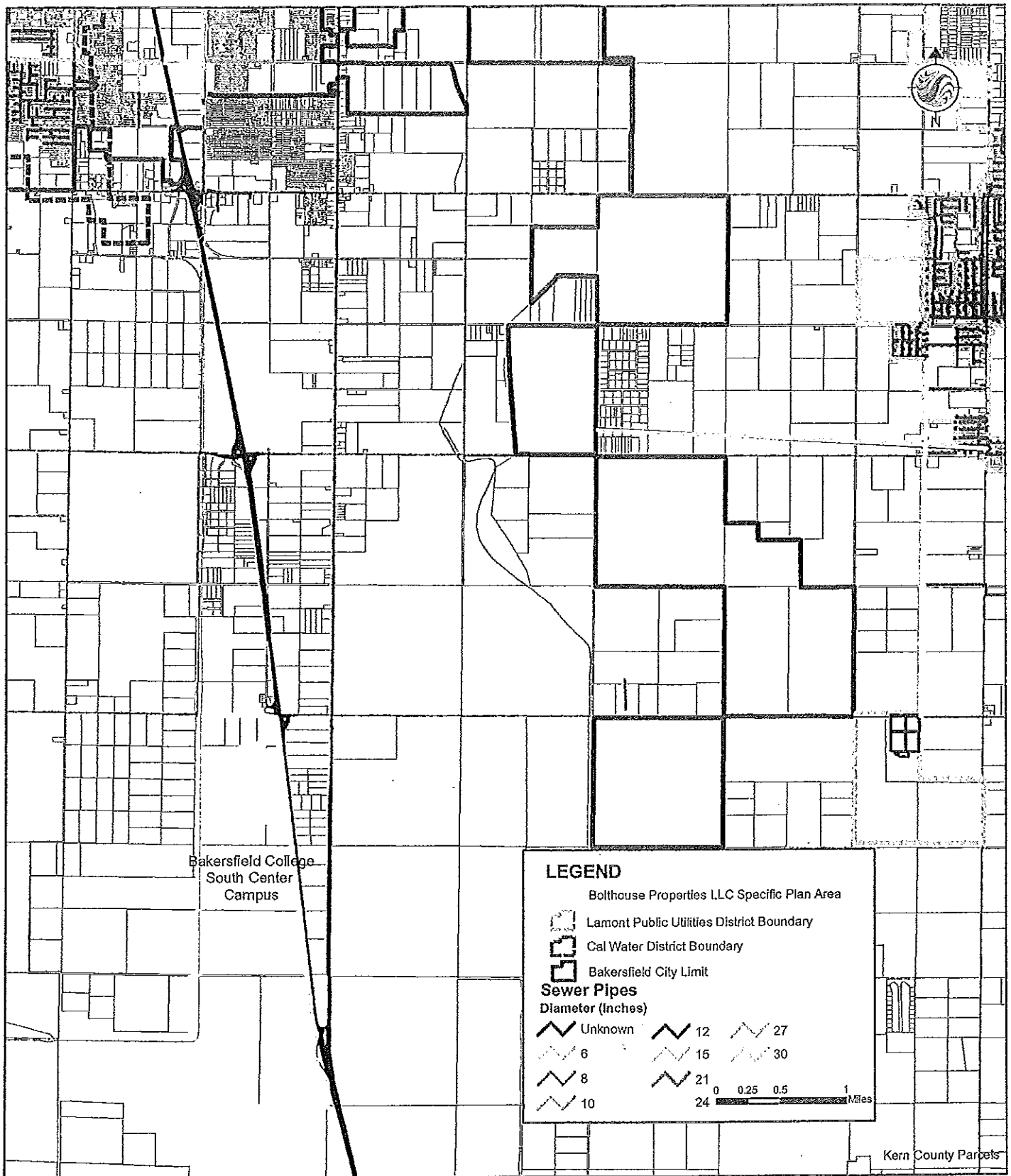
	Factor	Development Surrounding College Campus (gpd)
Average Day Demand		349,438
Max Day	2.0	698,875
Peak Hour	4	1397750
Fire Flow		2,500

3.12 SEWER SERVICE

The City of Bakersfield provides wastewater collection and treatment services to areas within the City of Bakersfield. The City of Bakersfield's wastewater collection, treatment, and disposal system can be connected to approximately four miles north of the proposed campus site. see Figure 3-11: Sewer Collection Lines Map for locations relative to the proposed project site. Sewage that is untreated is piped to the City's treatment plant using both gravity flow and lift stations. There is an existing 8-inch sewer collection line that extends to the corner of South "H" Street and Taft Highway and a 21-inch sewer collection line that ends approximately 1/8th of a mile north of Taft Highway on Wible Road..

The proposed campus site could be serviced by the City's Wastewater Treatment Plant #3. Wastewater Treatment Plant #3 currently has a capacity of 16 million gallons per day (mgd), and an expansion of the plant that will expand its capacity to 32 mgd has been approved and the City plans to start construction on the expansion in late 2007. (Louis Sun, City of Bakersfield Public Works Department, Wastewater Division, personal conversation, September 24, 2007). This would accommodate growth, such as the proposed project, within the City.

3.12.1 Sewer Service Critical Issues**Metropolitan Bakersfield General Plan Sewer Policies**



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Figure No. **3-11**

Title
**BOLHOUSE PROP LLC
 BAKERSFIELD COLLEGE
 SOUTH CENTER CAMPUS
 SEWER SERVICE MAP
 NOVEMBER 2007**

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CRITICAL ISSUES REVIEW / FEASIBILITY REPORT
BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS
 Disciplinary Development Issues
 November 2007

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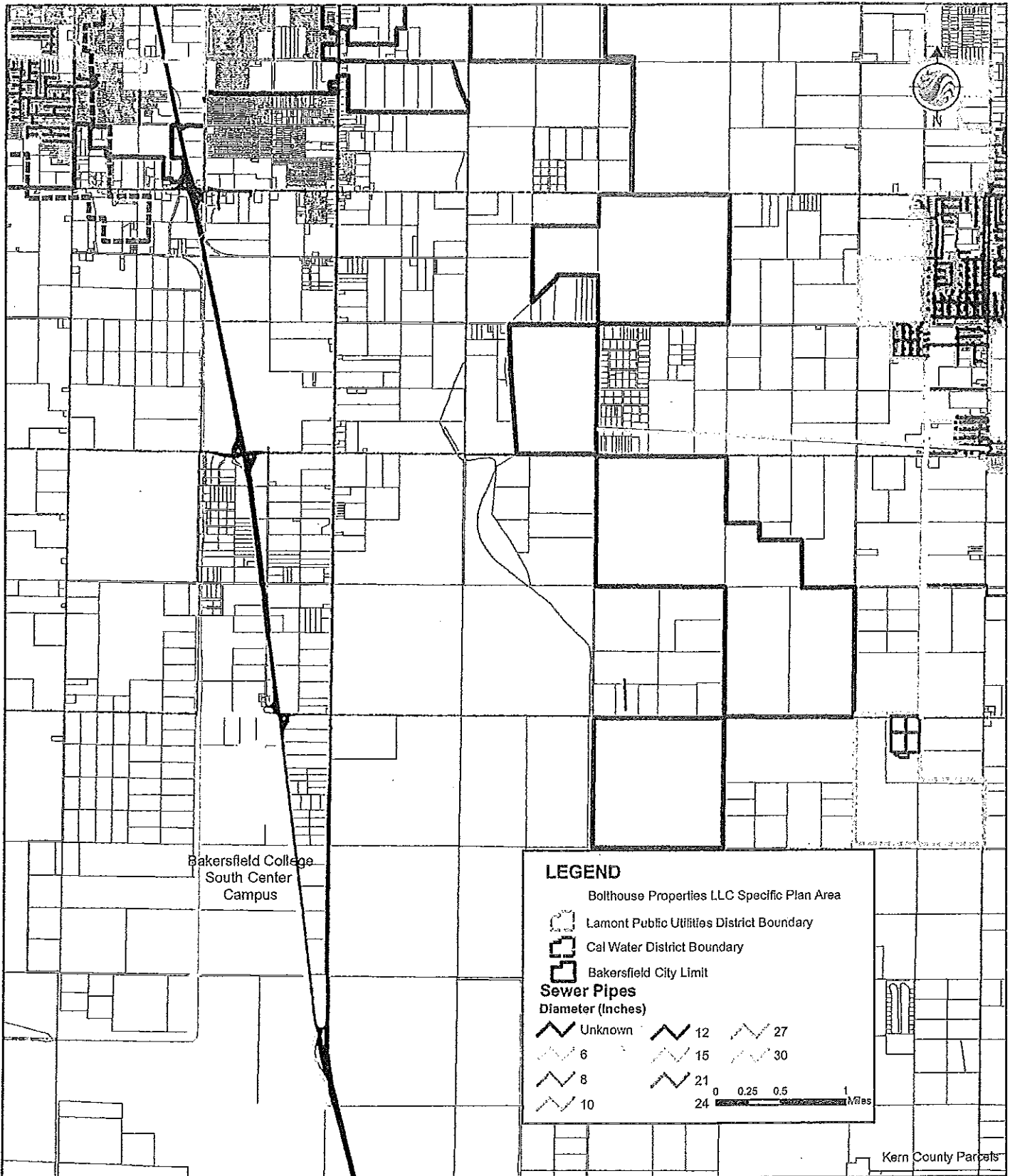
	Factor	Development Surrounding College Campus (gpd)
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3.12.1 Sewer Service Critical Issues**Metropolitan Bakersfield General Plan Sewer Policies**



Bakersfield College
South Center
Campus

LEGEND

Bolthouse Properties LLC Specific Plan Area



Lamont Public Utilities District Boundary



Cal Water District Boundary



Bakersfield City Limit

Sewer Pipes

Diameter (Inches)

	6		12		27
	8		15		30
	10		21		
	Unknown		24		

0 0.25 0.5 1 Miles

Kern County Parcels



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Title

**BOLTHOUSE PROP LLC
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SOUTH CENTER CAMPUS
SEWER SERVICE MAP
NOVEMBER 2007**

On November 15, 2005, the Kern County Board of Supervisors approved revisions to the Metropolitan Bakersfield General Plan related to requiring sewers for new residential, rural residential, commercial and industrial development within the boundaries of the Metropolitan Bakersfield General Plan area. The adopted Metropolitan Bakersfield General Plan sewer policy text changes require all new commercial, industrial and residential developments and residential land divisions proposing parcels smaller than six gross acres to connect to public sewer. The requirement that new development within unincorporated Metropolitan Bakersfield General Plan area connect to public sewer is intended to ensure that new Metropolitan Bakersfield growth occurs in a coordinated manner based upon the availability of the extension of sewer infrastructure. Applications for new Metropolitan Bakersfield Planning area land divisions (parcel maps, parcel map waivers, and tentative tracts), conditional use permits and precise development plans that require conformity with the General Plan will be required to comply with the new sewer policy requirements.

All new planned land use designation amendments to the Metropolitan Bakersfield General Plan within the Metropolitan Bakersfield Plan area are required to be served by public sewer. This revision to the Metropolitan Bakersfield General Plan is intended to ensure that new General Plan amendment proposals are not being requested prematurely for areas where public sewer is not available.

Connection to the City's or Lamont Public Utility District Sewer Systems

The project site does not currently have sewer conveyance infrastructure connected to the City sewer collection system necessary for the conveyance of wastewater for treatment from the proposed project site. There is an 8-inch sewer collection line located beneath Taft Highway, north of the project site within City limits. According to the City of Bakersfield, the project would be able to join the City's current sewer system if it could run a four mile sewer collection line and annex to the City.

Average wastewater flows for residential land uses in the City of Bakersfield are 150 gallons per capita per day and 1,500 gallons per acre per day for Commercial Land Uses. Based on projected Water Demand to Waste Water Demand from proposed residential, college campus, and commercial land uses the proposed project will produce approximately 279,297 mgd of wastewater. The proposed college campus and surrounding development immediately adjacent to the college campus is estimated to use .087% of the City's sewage treatment capacity at Plant #3 after its planned expansion and 1.7% of the plant's current capacity. This will not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board or result in the construction of new wastewater treatment facilities.

Table 3-8. Project Wastewater Demand

	Water Demand (gpd)	Percent Water Demand to Wastewater (gpd)	Wastewater (gpd)
Development Immediately Surrounding College Campus			
Residential	144,375	80%	115,500
College Campus	200,000	80%	160,000
Commercial	5,063	75%	3,797
TOTALS	349,438		279,297

One option for the provision of sewer service for this projected demand of the proposed college campus and surrounding development is to construct the necessary sewer collection line between the proposed project site and the rest of the city's sewer system. This would entail running an 8-inch line for 4-miles along South "H" Street from the northwest corner of the project site to Taft Highway. The required sewer collection line for connecting the project site to the city (pipe line, and pump station) would cost approximately \$1,725,000.00 to \$2,000,000.00.

A second option for the provision of sewer service for this projected demand is to connect to the Lamont Public Utility District (PUD) wastewater treatment system. Lamont PUD operates a wastewater treatment plant located at the corner of Bear Mountain Boulevard and Wildman Road, which is approximately 4.5 miles east of the campus project site. The Lamont PUD wastewater treatment plant is permitted by the Regional Water Quality Control Board to treat a maximum daily flow of 2.0 mgd. The average daily wastewater flows to the treatment plant is 2.5 mgd. The Regional Water Quality Control Board currently has a cease and desist order on the Lamont PUD wastewater treatment plant. Lamont PUD is currently in the process of expanding the wastewater treatment plant in response to the cease and desist order, and completion is expected by March 2008. However, the Lamont PUD has issued will-serve letters that will take up the capacity provided by the expansion. (personal conversation with Jeff Ervin, the plant operator for the Lamont PUD treatment plant on September 24th, 2007) This will not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board or result in the construction of new wastewater treatment facilities. The costs of connecting to the Lamont PUD wastewater treatment plant would be approximately the \$1,875,000.00 to \$2,000,000.00. In addition, KCCCD would have to fund an additional expansion of the wastewater treatment facilities which would cost another estimated \$1,500,000.00.

3.13 STORM DRAINAGE

Changing the land use from agricultural to the residential/commercial use of the Bakersfield College South Center will result in a decrease in pervious surface, resulting in a change in the hydrologic and hydraulic characteristics of the watershed. The change in the watershed imperviousness will result in increased runoff volumes, and an increase in the frequency of flooding and degradation of surface water quality. Storm water management plan for the project site will control storm water runoff for the purposes of reducing downstream erosion and flooding and the plan will mitigate the negative effects resulting from urbanization.

The development of Bakersfield College South Center would need to be consistent with the National Flood Insurance Program (NFIP) and regulations adopted by County of Kern to address drainage and flooding issues in the area. The regulations adopted by County of Kern are defined in Kern County Development Standards, Kern County Hydrology Manual and Floodplain Management, Chapter 17.48. The National Pollutant Discharge Elimination System (NPDES) permit is issued by California Regional Water Quality Control Board (RWQCB). Kern County requires the "Applicability of NPDES Storm Water Program for a Project Disturbing One (1) Acre or greater within Kern County". This relates to whether all storm runoff is retained or not retained on site and whether storm water does or does not discharge to a Water of the United States during construction activities.

There is no Master Drainage Plan developed by County of Kern for the subject property. The storm water management plan for Bakersfield College South Center proposes its own onsite solution by developing

an efficient system to collect the runoff from the development and to convey that runoff to the proposed retention basin(s) as surface flow in street gutters and, when necessary, as subsurface flow in the storm drain pipes.

3.13.1 Existing Drainage Pattern

The Bakersfield College South Center Campus project site is very flat with elevation ranging from 307 to 322 feet above sea (See Figure 3-12: Drainage Map). There is a very slight slope of less than half of a percent from the northeast to the southwest, determining the overall pre-development surface drainage pattern. There is no off-site flow entering the property. Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), shows the Project Site is in Flood Zone C. Zone C is the FEMA designated flood zone area that is determined to be outside 100 and 500 year floodplains. Therefore, the subject area is under minimum flood risk. A Letter of Map Revision (LOMR) should not be required.

3.13.2 Storm Drainage Discharge Options

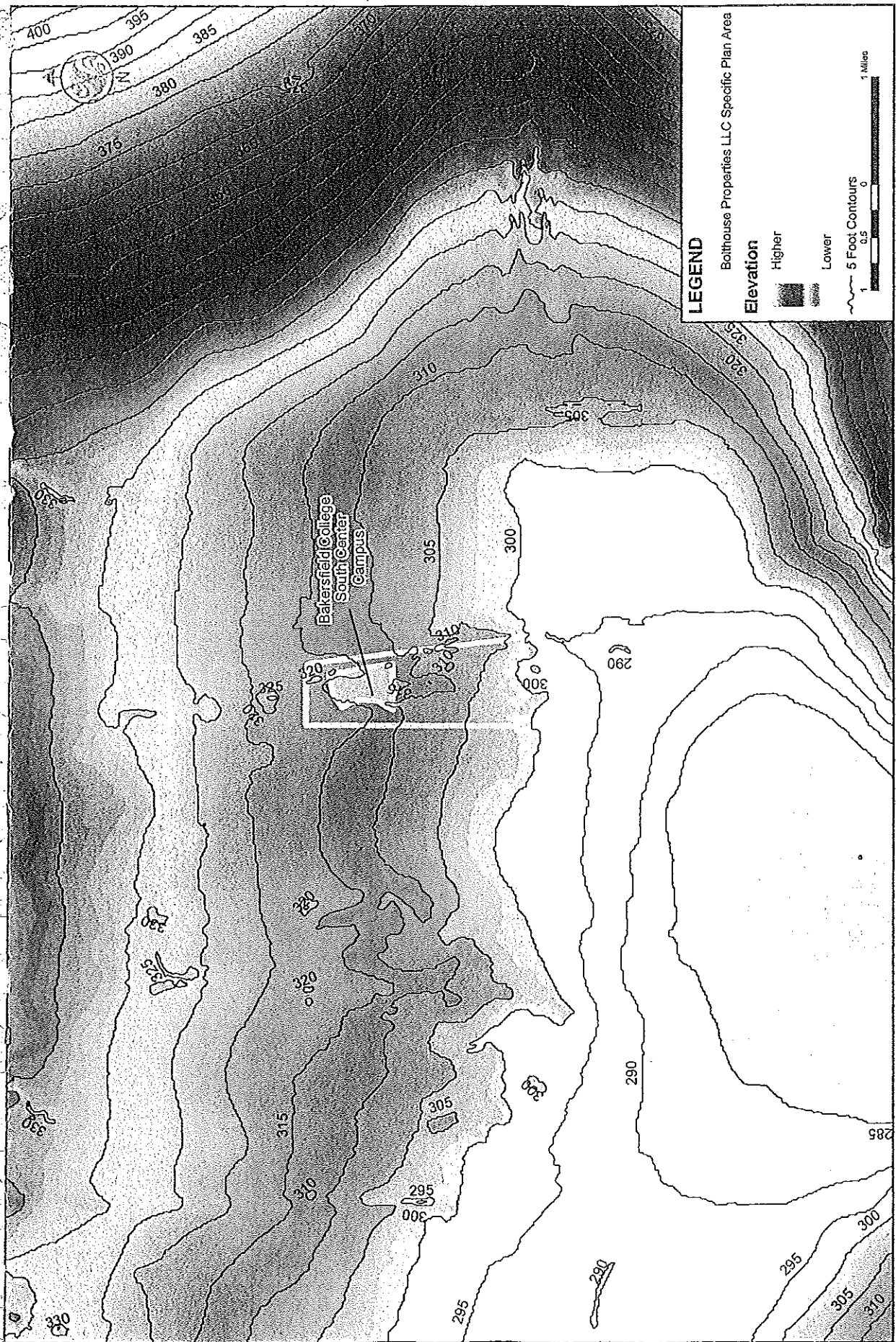
To make efficient use of the land, sites designated for recreational purposes in the Bakersfield College South Center would use detention ponds for secondary potential flood storage, storm water treatment, and hydro-modification areas as part of the master flood control plan. These detention basins if designed to detain water at maximum 18" of a depth would not need to be fenced and therefore provide an aesthetic look within the planned landscape areas. Their primary function would be to detain water during storm events and gradually discharge into the storm system, so as not to overload regional conveyance facilities. Vegetated median areas and roadside vegetated swales are other elements of the flood conveyance that also implements pollutant removal and bioremediation of the storm water.

Another option for storm drainage discharge is the use of the Kern Island Canal for stormwater management. This option would consist of constructing a detention basin, pump station, discharge pipe, and outfall structure. This option would require coordination and agreement with the Kern Water Agency to allow discharge into the Kern Island Canal. In addition, this option would require regulatory permitting through the Department of Fish and Game, the US Army Corps of Engineers, and the Regional Water Quality Control Board. The new outfall option would require not only additional money (approximately \$500,000 for a new pump station), but also additional time to allow for permitting.

3.13.3 Storm Drainage Critical Issues

The following is a list of critical issues related to storm drainage and stormwater quality. However, it does not appear that there are any potential critical issues or fatal flaws.

- Stormwater Quality. The proposed site will need to comply with the City's or County's Storm Water Management Plan (SWMP) with respect to both short term (during construction) and long term practices to protect stormwater quality.
- Stormwater Conveyance. The onsite storm drainage system will need to be designed to convey the 2-year storm with no surcharge at the upgradient portion of the site. However, it is recommended that a 10-year storm event be used as the design storm for storm drainage conveyance.



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- Stormwater Detention. An onsite detention pond will be required to detain the 100-year, 48-hour storm event. Constraints mapping provided by Kern County indicates that the general depth to groundwater in the area is possibly as shallow as 15 ft. Therefore, it is unlikely that the detention basin design will be limited by groundwater. Detention basin can be as large as ten acres depending on the final urban pattern and the amount of impervious surface. Detention can be incorporated into the urban design as linear water features of the landscape.
- Kern Island Canal Outfall. This option would consist of constructing a detention basin, pump station, discharge pipe, and outfall structure. This option would require regulatory permitting through the Department of Fish and Game, the US Army Corps of Engineers, and the Regional Water Quality Control Board (RWQCB). The new outfall option would require not only additional money (approximately \$500,000 for a new pump station), but also additional time to allow for permitting. Permitting a new drainage outfall to the Kern Island Canal will require adherence to recent guidelines set out by the RWQCB to meet challenges of sustainable drainage. Sustainable drainage systems involve a change in our way of managing urban runoff from solely looking at volume control to an integrated multi-disciplinary approach which addresses water quality, water quantity, amenity and habitat.

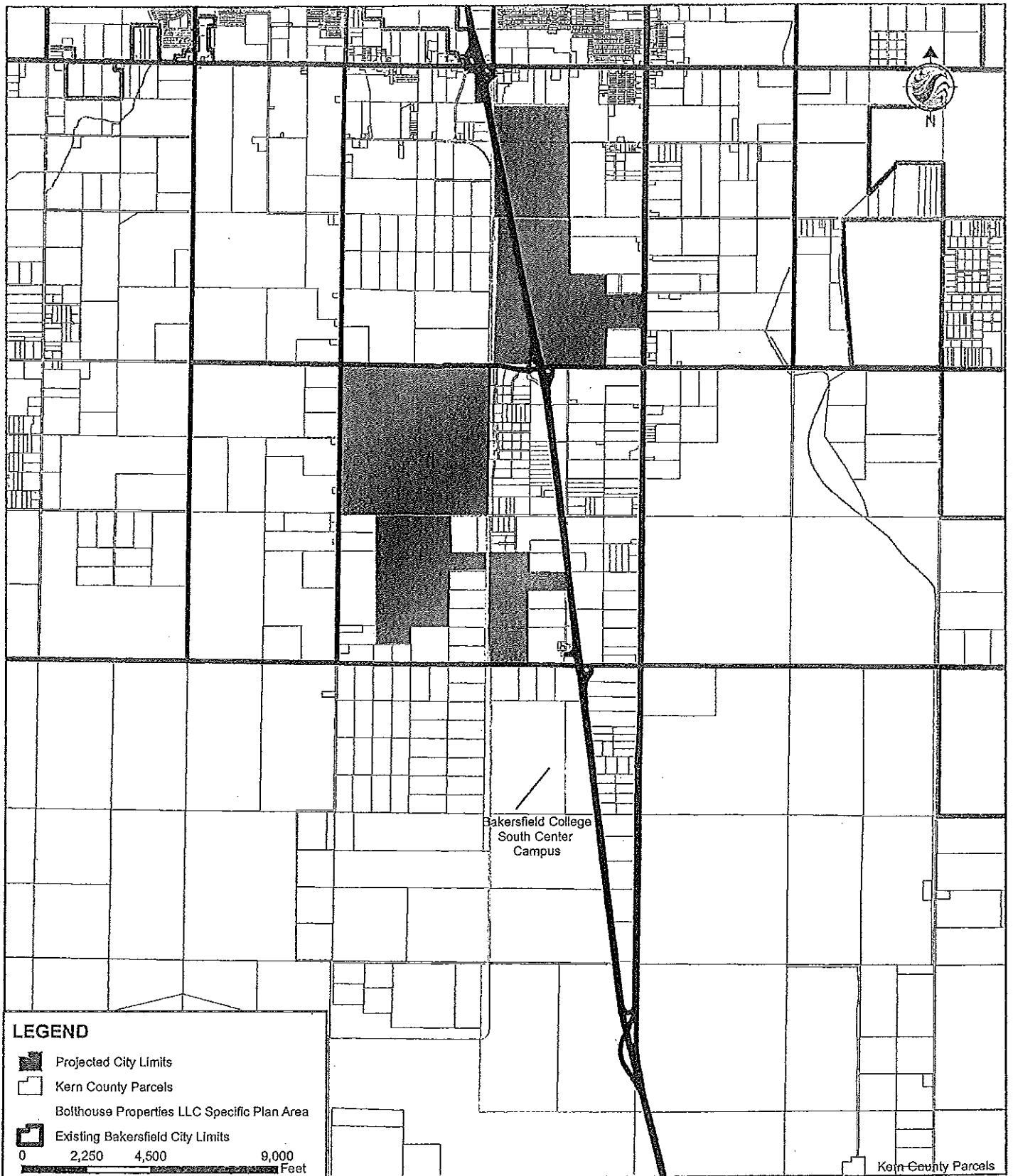
3.14 ANNEXATION

3.14.1 Kern County Local Agency Formation Commission (LAFCO)

In order to obtain the necessary infrastructure services such as sewer, and water service from the City of Bakersfield the project site must be annexed into the city or the Lamont Public Utility District. The proposed project site is separated from the existing city limits by one ten parcels owned by various entities and/or individuals which will require annexation as well as prevent the proposed project site from being an island of the city jurisdiction in Kern County. Figure 3.13: Existing and Projected City Limits, shows the parcels recommended for annexation to implement the proposed project. Without annexation the KCCD and Bolthouse Properties LLC, would have to provide infrastructure services on their own which would increase development costs and operational costs of the proposed campus and surrounding community. As such the following annexation process will be required for annexation.

The Kern County Local Agency Formation Commission (LAFCO) is a county-wide regulatory agency that coordinates changes in local government boundaries. The purpose of LAFCO is to promote orderly growth and prevent the untimely conversion of agricultural land to urban uses. LAFCO approves jurisdictional boundary changes, including annexation of land into a city or special district such as Lamont Public Utility District (PUD). The project area would fall under the purview of LAFCO for review of the annexation.

LAFCO has established factors that are considered in the review of proposals. Some of these factors include: population and population density; the need for organized community services; the effect of the proposed action and of alternative actions, on adjacent areas, on mutual social and economic interests, and on the local governmental structures of the county; and the extent to which a proposal will affect a city or cities and the county in achieving their respective fair share of the regional housing needs as



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Client/Project
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 COLLEGE DISTRICT

Figure No.
3-13

Title
**BOLTHOUSE PROP LLC
 BAKERSFIELD COLLEGE
 SOUTH CENTER CAMPUS
 EXISTING & PROJECTED
 CITY LIMITS**
 NOVEMBER 2007

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CRITICAL ISSUES REVIEW / FEASIBILITY REPORT BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS Disciplinary Development Issues November 2007

determined by the council of governments. The Kern County LAFCO would make the final determination as to whether the proposed project site could be annexed by the City of Bakersfield or the Lamont PUD.

To proceed with an annexation which has been approved by the City, the KCCD and Bolthouse Properties LLC must submit an application to LAFCO. LAFCO has the authority to reject, approve, or condition applications which the City has approved. The KCCD and Bolthouse Properties LLC will be responsible for all LAFCO application fees and submittal requirements. Once LAFCO has a complete application, a public hearing will be conducted and LAFCO will act on the matter. The KCCD and Bolthouse Properties should be prepared to make a presentation to LAFCO on the matter. The City staff has indicated the City will support a request of annexation from the KCCD and Bolthouse Properties LLC and will represent the City's perspective on the application to LAFCO at the hearing.

Following LAFCO approval, the KCCD's engineer (Stantec) will need to prepare a final version of the annexation map for approval of the City Engineer and LAFCO, following which it is recorded and the land is officially annexed into the City of Bakersfield or Lamont PUD. Unless otherwise approved, City annexation fees must be paid prior to the City Engineer's approval of the map.

3.14.2 Sphere of Influence (SOI)

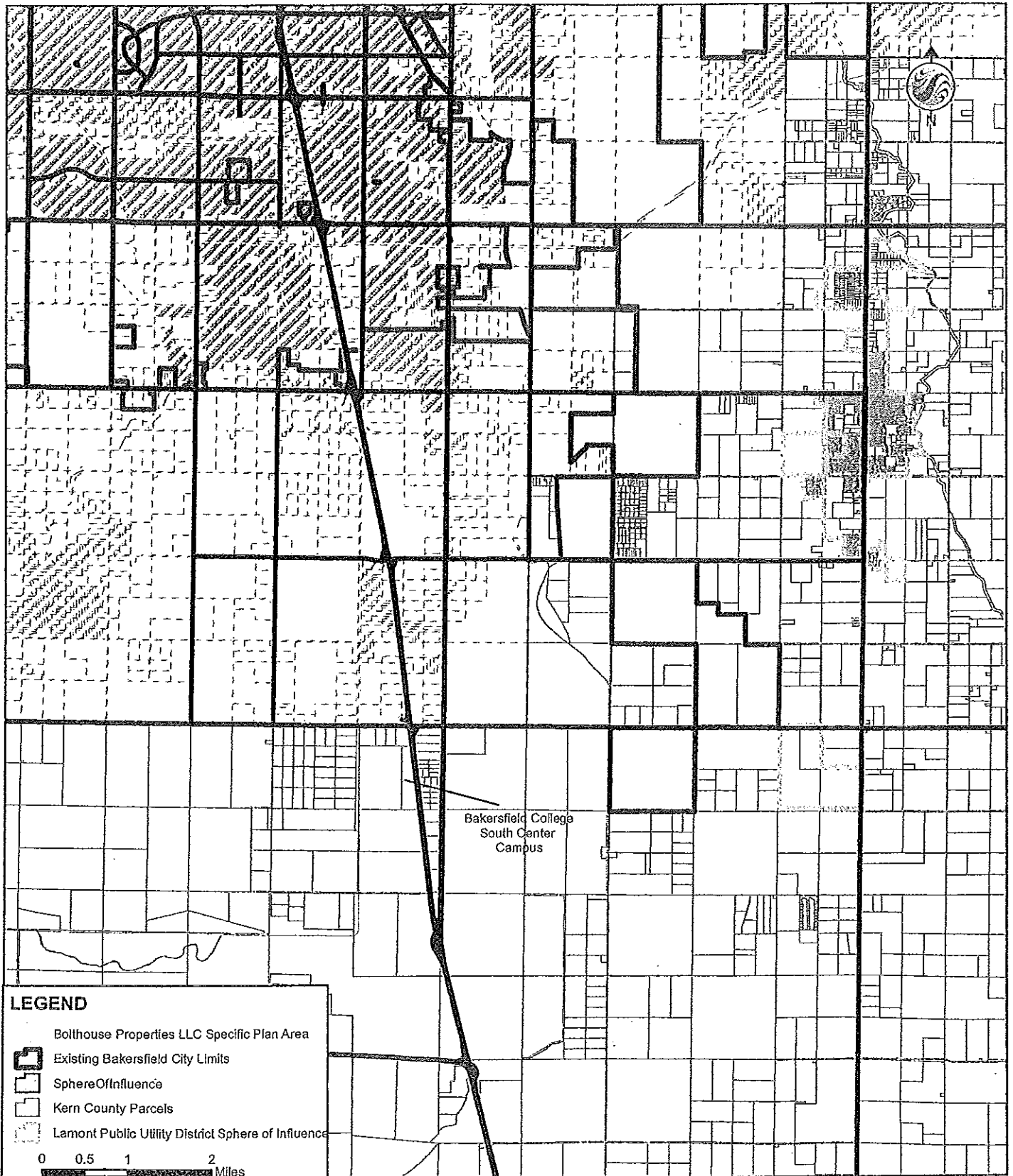
When the last Metropolitan Bakersfield General Plan was adopted in 2004 it established the size of the Sphere of Influence (SOI). Figure 3-14: Bakersfield and Lamont PUD Existing Sphere of Influences depicts the current boundaries adopted by LAFCO. The Sphere of Influences are intended to designate lands outside of the present City boundary, and Lamont PUD which can reasonably be expected to be annexed to the City or the PUD within an approximate 20-year planning period. The proposed project site is not within the SOI for the City of Bakersfield nor the Lamont PUD and will thus require an amendment to the SOI to allow consideration of an annexation to either government entity.

Pursuant to Government code Section 56425, LAFCO must adopt a Sphere of Influence for each local governmental agency. Once established, a Sphere of Influence shall be used as a guide to LAFCO in the determination of any proposal concerning cities or special districts and territory adjacent thereto. LAFCO may include areas of planning concern in city Spheres of Influence. Inclusion of territory within a Sphere of Influence should not necessarily be seen as an indication that the city will either annex or develop to urban levels such territory. The Urban Service Area boundary will serve as LAFCO's primary means of indicating a city's intention of development and provision of urban services.

The LAFCO may periodically review and update the Spheres of Influence developed and determined by it, either at the request of a local government agency or at its own discretion. The current update of the Metropolitan Bakersfield General Plan is an appropriate occasion to reconsider the present SOI boundaries and amend as appropriate.

3.14.3 Adoption and Amendment Policies for City Spheres of Influence

LAFCO will require consistency with city general plans in adopting or amending a Sphere of Influence. Joint City/County Specific Plans and factors such as density policies, development standards, geology, and future use will be considered by the LAFCO when establishing Spheres of Influence.



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Client/Project

KERN COMMUNITY
COLLEGE DISTRICT

Figure No.

3-14

Title

**BOLTHOUSE PROP LLC
BAKERSFIELD COLLEGE
SOUTH CENTER CAMPUS
BAKERSFIELD AND LAMONT PUD
EXISTING SPHERE OF INFLUENCE**
NOVEMBER 2007

Pursuant to Government code Section 56425, LAFCO will consider and make a written finding regarding the following, in adopting or amending a Sphere of Influence:

- a. The present and planned land uses in the area, including agricultural and open space lands;
- b. The present and probable need for public facilities and adequacy of public facilities and services in the area;
- c. The present capacity of public facilities and adequacy of services which the agency provides or is authorized to provide;
- d. The existence of any social or economic communities of interesting the area if the Commission determines that they are relevant to the agency.

3.14.4 Annexation Critical Issues

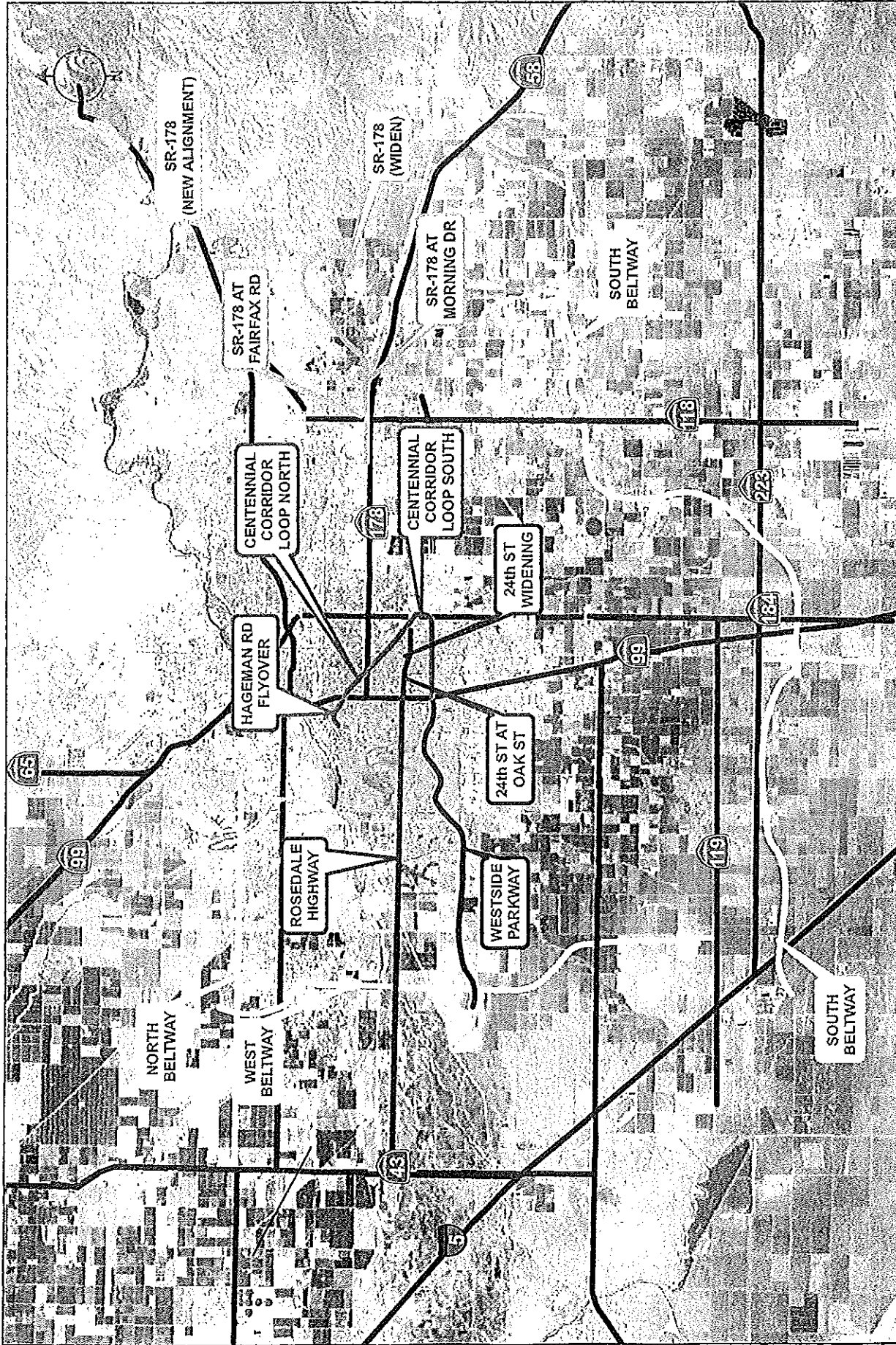
- Project site is located outside the City of Bakersfield's and Lamont PUD's sphere of influences designated by the Kern County Local Agency Formation Commission (LAFCO). Properties annexed to the City of Bakersfield or Lamont PUD are required to be within Bakersfield's or Lamont PUD's sphere of influence.
- Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 requires LAFCO review municipal services before updating sphere of influence for City of Bakersfield or Lamont PUD. KCCD and Bolthouse Properties LLC would incur costs to prepare a Municipal Services Review Report to support the expanded sphere of influence boundaries to accommodate the annexations either to the City of Bakersfield or Lamont PUD.

3.15 TRANSPORTATION

The proposed project site fronts State Highway 223 for approximately 3,000 feet. The following section outlines requirements of the California Department of Transportation concerning State Highway 223 and probable requirements of the proposed project pertaining to transportation improvements.

3.15.1 Planned Regional Transportation Improvements

Several large highway projects for the region are currently in planning and development stages. These projects, outlined in yellow in Figure 3-15: Regional Transportation Improvements will eventually create a beltway loop around west, south, and parts of east Bakersfield, providing congestion relief for the area's major arterials. The North Beltway project is an expansion of 7th Standard Road from two lanes to six lanes between SR-99 and SR-43. This project is currently entering the engineering design phase and officials from the county estimate that construction could be completed by mid 2009. The West Beltway project is a proposed 12-mile, 6-lane north-south freeway running from 7th Standard Road in the north to Taft Freeway/SR-119 in the south. The project is currently in the early stages of scoping and environmental review, and county officials estimate a project timeline of at least seven years to completion. Federal funding has been secured for both the majority of costs associated with these North and West Beltway Projects. The South Beltway project is envisioned as a 23-mile, 8-lane freeway running



Client: **WERN COMMUNITY COLLEGE DISTRICT**
 Figure No. **3-15**
 Title **BOLTHOUSE PROP LLC BAKERSFIELD COLLEGE SOUTH CENTER CAMPUS REGIONAL TRANSPORTATION IMPROVEMENTS MAP**
 NOVEMBER, 2007

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east-west from Interstate 5 on the east to SR-58 on the west. County officials suggested that this project is many years from realization.

3.15.2 Kern Council of Governments (KERNCOG) 2007 Regional Transportation Plan

The purpose of the 2007 Regional Transportation Plan (RTP) is to present a transportation plan outlining programs that will result in an improved transportation infrastructure. Projects specific to the length of Highway 223 corridor associated with the proposed project are depicted in Table 3-9: 2007 KERNCOG RTP Project List.

Table 3-9: 2007 KERNCOG RTP Project List

PROJECT	LOCATION	SCOPE/DESCRIPTION	2007-2030	YEAR
SR-223	Caltrans	Widen to 4 lanes from SR-184 to SR-99 Right-of-way protection and environmental	\$1,000,000	2026
SR-223	Caltrans	Construct four lanes from SR-58 to SR-99	\$62,000,000	2015

Source: KernCOG 2007 RTP

3.15.3 Metropolitan Traffic Impact Fee

The metropolitan Bakersfield Traffic Impact Fee (TIF) assesses \$6,826 on every new housing unit built within the city or unincorporated areas. The metropolitan Bakersfield fee has been raised several times since its inception. A recent revision to the ordinance created a core area with a fee that is half the normal rate, the intent of which is to encourage infill development.

3.15.4 Regional Congestion Management Program

California Government Code Section 65089(b)(A) requires that the Congestion Management Agency establish a system of highways and roadways that includes all of the State highways and principal arterials. State Route 99 and State Route 223 are listed on the designated Congestion Management System. The Congestion Management Program establishes the Level of Service standards for the Congestion Management road network in Kern County. California Government Code Section 65089(b)(1)(B) requires that Level of Service standards be established at no worse than LOS E, or LOS F if that is the current level of service. Level of Service "E" has been established as the minimum systemwide LOS traffic standard in the Kern County Congestion Management Plan.

3.15.5 Design Standards

The Caltrans Highway Design Manual identifies design standards for sight distance and intersection skew. According to the Caltrans Highway Design Manual, a typically acceptable intersection skew is between 75 and 105 degrees based on the intersection of the centerlines of the intersecting roadways.

The posted speed limit on Highway 223 within the subject improvement corridor is 45 miles per hour. The corresponding stopping light distance requirement for this speed is 492-feet for the 45-mile per hour posted speed limit. Driveway access modifications along All ingress/egress to the proposed project site would be subject to these sight distance standards as well.

3.15.6 Caltrans Encroachment Permit

An Encroachment Permit will be required for work done within the Caltrans right-of-way. This work is subject to the California Environmental Quality Act. Therefore, additional biological, archaeological, or other environmental studies may be required as part of the encroachment permit application. Ground disturbing activities to the proposed project site prior to completion and/or approval of required environmental documents may affect the ability of Caltrans to issue a permit for the project. In addition, all engineering plans and drawings must be prepared in standard units.

KCCD, Bolthouse Properties, LLC or their authorized representatives will be required to sign and submit an encroachment request on a current Caltrans form with appropriate fees. Proposed improvements that require submittal to the city or county for permit, will require that the plan sets (6 copies) be included as a portion of the encroachment permit. Improvement plans for construction within the state right-of-way must include: typical cross sections, adequate structural sections, traffic control plans, signing and striping plans stamped by a professional engineer.

3.15.7 State Highway 223 and Required Transportation Improvements

The proposed project will impact State Highway 223 directly along the frontage of the property and will require improvements to the highway which will include the following:

- Construction of two twelve (12) foot travel lanes entire frontage of the proposed project approximately 3,000 feet.
- Construction of eight foot shoulder with bike path striped entire frontage of the proposed project.
- Construction of curb, gutter, and sidewalk.
- Installation of traffic signals at a minimum of two intersections within the frontage of the project site.

It is estimated the costs of roadway and intersection signalization improvements along the frontage of the proposed project site will be approximately \$1,600,000.00. In addition, regional traffic impact fees may be requested to pay the proposed development's fair share costs of cumulative regional transportation impacts.

3.15.8 State Highway 223 and Transportation Critical Issues

Proposed Project may Increase Traffic Volume on Existing Infrastructure

The impact on transportation facilities caused by the proposed project will diminish roadway capacities, stress the existing infrastructure and lower the level-of-service for the corridor, likely producing a LOS E or F during the a.m. and p.m. peak hours.

The following mitigation measures are typically utilized to reduce traffic impacts of new development on the transportation infrastructure:

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- Provide pedestrian sidewalks and pedestrian paths, direct pedestrian connections, street trees to shade sidewalks, pedestrian safety signs/infrastructure, street furniture and artwork, street lighting and or pedestrian signalization and signage.
- Provide bikeways/paths connecting to a bikeway system, secure bicycle parking.
- Provide transit shelters, benches, etc., street lighting, route signs and displays, and/or bus turnouts/bulbs.
- Install appropriate traffic signs.

It should be noted that additional roadway improvements, aside from those identified by the Kern Council of Governments 2007 Regional Transportation Plan may have to be considered prior to the undertaking of this project. Two areas of improvement are as follows:

- Roadway improvements on SR-223 will require construction of additional travel lanes, bike lanes, curbs, gutters, and sidewalks for the entire frontage of the Bolthouse property. Estimated costs associated with the required roadway improvements are approximately \$1,100,000.00 depending on final traffic studies, CEQA documentation and improvements required.
- Intersection signalization may be required for the new intersections created by the proposed Bolthouse Properties LLC Specific Plan and College Campus Project, which may attribute costs to the KCCD or Bolthouse Properties LLC between \$500,000.00 and \$750,000.00.

Ingress/Egress and Caltrans Encroachment Permit Requirements

The addition of roadway intersections with State Route 223 will require the submittal of a Caltrans Encroachment Permit. Although there are existing unpaved driveways located at the project site, driveway maintenance activities require that a permit application be submitted prior to having any work performed. Additional items such as surety bonds, liability insurance, environmental documentation, plans, etc. may be required in order for the encroachment permit to be granted.

3.16 UTILITIES

This section describes the existing utilities which serve the project site including solid waste, telecommunication, natural gas and electricity. This section includes a discussion of potential impacts, and mitigation measures are presented when necessary.

3.16.1 Solid Waste

There are several sources of solid waste in the City of Bakersfield, including residential, commercial, industrial, and construction/demolition. Hazardous waste is also produced by the science classes such as chemistry and biological laboratories. All hazardous waste products are either recycled or disposed of through the proper agencies with the City or County. Mandatory trash collection for the project site would be provided by the City of Bakersfield upon annexation. All solid waste generated on the college campus or surrounding neighboring development would be disposed of at the Bena Sanitary Landfill, located about twenty miles east of the Project site off Highway 58 at Tower Line Road in Kern County.

The Bena landfill is owned and operated by the Kern County Waste Management Department. The facility is located on 2,285 acres with a permitted disposal area of 229 acres. The landfill's maximum permitted capacity is 53,000,000 cubic yards and its remaining capacity is 44,818,958 cubic yards. Estimated closure date is 2038. This landfill is a Class III landfill and accepts construction/demolition, and mixed municipal waste (California Integrated Waste Management Board, April 2007). The landfill has a maximum daily tonnage limit of 4,500 tons, and in 2005 the incoming waste stream average 1,578 tons per day (Kern County Waste Management Department, January 2007).

3.16.2 Telecommunications and Cable

Cable services in the City of Bakersfield are currently provided by Bright House Networks and the Advance Newhouse Partnership. Since the proposed project is adjacent to areas which are currently developed in highway commercial and four miles south of the existing city limits, it is likely that cable infrastructure would be readily available in the vicinity of the proposed project site. Bright House Networks seeks to expand their customer base and work to provide service to new customers in order to gain new accounts.

AT&T provides telephone service in the Metropolitan Bakersfield region. In addition, AT&T provides high speed internet service. AT&T also provides or hosts a variety of other telecommunications services, including Digital Subscriber Line (DSL), Internet Service Provider (ISP), web hosting, virtual private networking, and wireless/cellular paging services.

3.16.3 Electrical Service

The Federal Energy Regulatory Commission oversees the transmission and sale of electricity in interstate commerce, licensing of hydroelectric plants and oversight of related environmental matters. The California Public Utilities Commission has adopted rules for the planning and construction of new transmission facilities. The project site is serviced by Pacific, Gas and Electric, Inc., (PG&E). It is anticipated PG&E will meet the power demands of the proposed college campus and surrounding urban development.

3.16.4 Utilities Critical Issues

- No critical issues identified concerning utilities services.

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**CRITICAL ISSUES REVIEW / FEASIBILITY REPORT
BAKERSFIELD COLLEGE -- SOUTH CENTER CAMPUS**

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<http://www.windfinder.com/wind/windspeed.htm>

California Air Resources Board <http://www.arb.ca.gov>

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**CRITICAL ISSUES REVIEW / FEASIBILITY REPORT
BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS**

November 2007

5.0 List of Preparers

<u>Name</u>	<u>Affiliation</u>	<u>Role/Discipline</u>
A.J. Whitaker P.E.	Stantec Consulting Inc.	Principal-In-Charge
Brent L. Moore, R.E.A.	Stantec Consulting Inc.	Project Manager
Trevor Macenski, R.E.A.	Stantec Consulting Inc.	Environmental Scientist
Kim Garrett	Stantec Consulting, Inc.	Environmental Scientist
Sarah McIlroy, P.E.	Stantec Consulting Inc.	Project Engineer
Lori Baccus	Stantec Consulting Inc.	Administrative Assistant
Spencer Larson	Stantec Consulting Inc.	GIS Analyst/Planner

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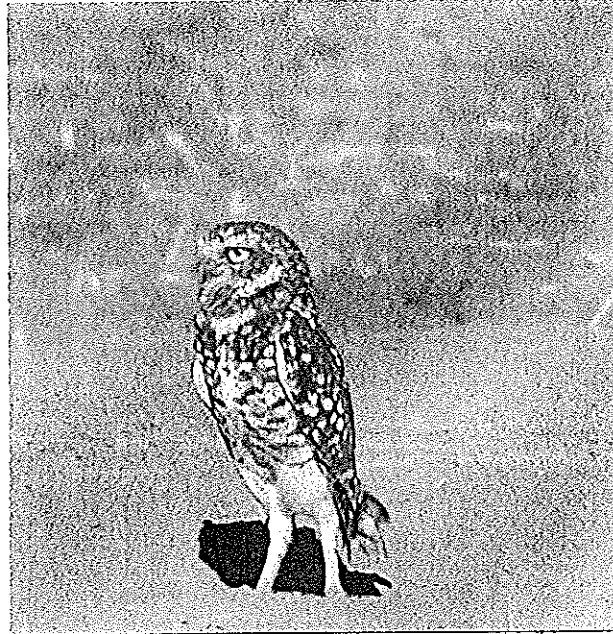
**CRITICAL ISSUES REVIEW / FEASIBILITY REPORT
BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS**

Appendix A
November 2007

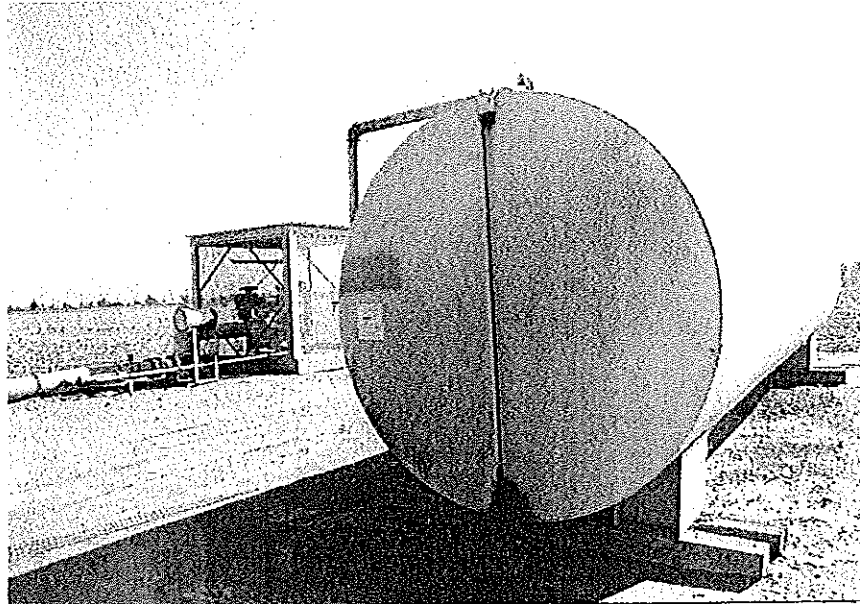
APPENDIX "A": PHOTO LOG

**CRITICAL ISSUES REVIEW / FEASIBILITY REPORT
BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS**

Appendix A
November 2007



Western Burrowing Owl on Bolthouse Properties LLC-
Bakersfield College South Center Campus Site

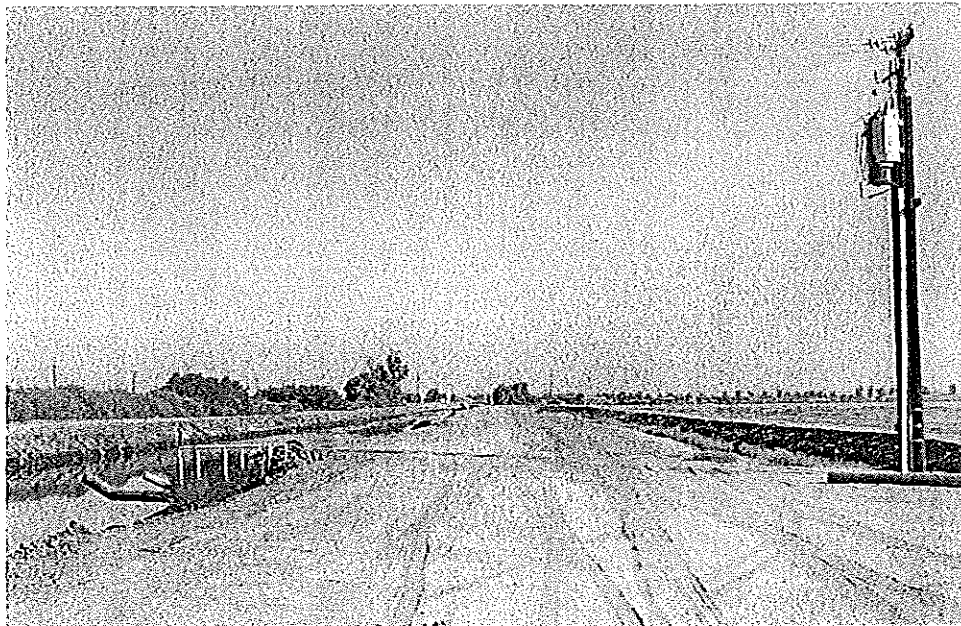


10,000 Gallon Diesel Fuel Storage Tank at southern boundary of proposed
Bakersfield College South Center Campus Site. Evidence of diesel fuel
spills surrounding tank.

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**CRITICAL ISSUES REVIEW / FEASIBILITY REPORT
BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS**

Appendix A
November 2007



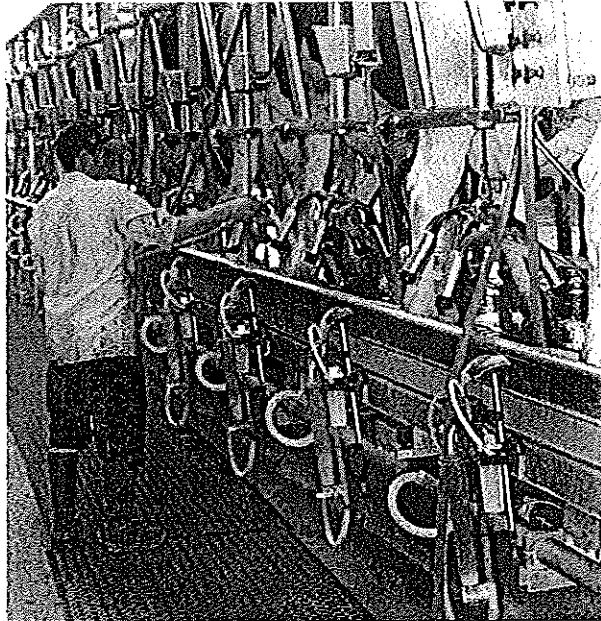
Looking North from the southend of the Bolthouse Property along the Kern Island Canal



Bear Mountain RV Park located across State Route 99 from Bakersfield College South Center Campus Site

**CRITICAL ISSUES REVIEW / FEASIBILITY REPORT
BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS**

Appendix A
November 2007



Bear Mountain Dairy located approximately 1.5 miles west of the Bakersfield College South Center Campus Site.

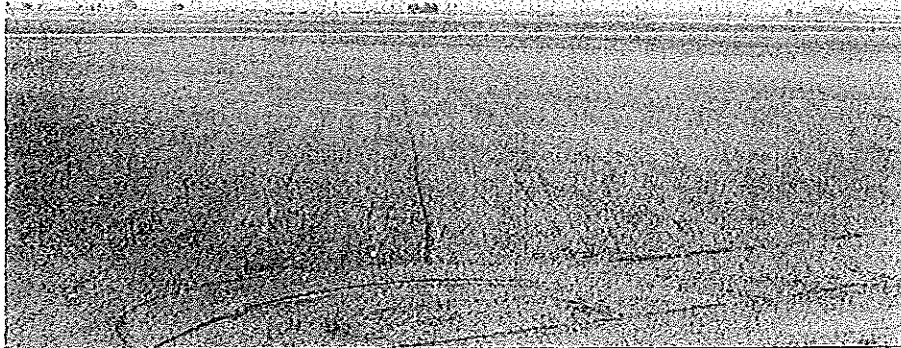


New Home being built on South "H" Street northwest of the Bakersfield College South Center Campus Site.

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**CRITICAL ISSUES REVIEW / FEASIBILITY REPORT
BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS**

Appendix A
November 2007



View of the Bakersfield College South Center Campus Site from the State Route 223 and State Route 99 Interchange Bridge looking southwest.



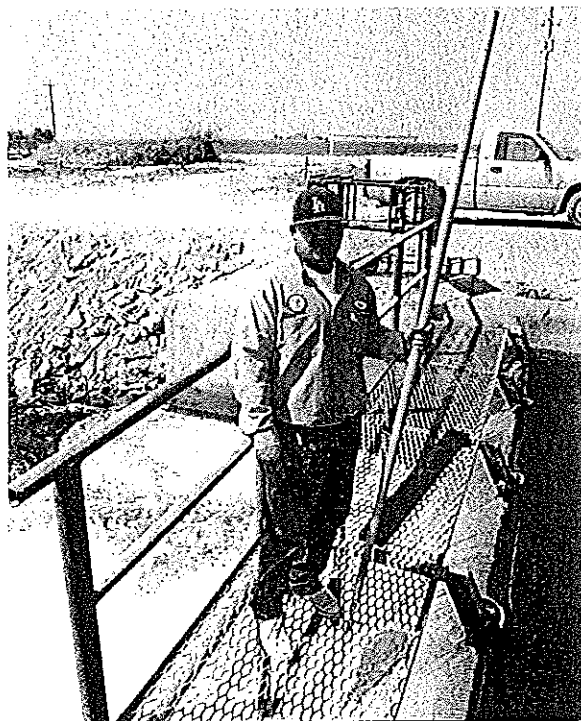
Looking South along the State Route 99 eastern border of the Bakersfield College South Center Campus Site from the State Route 223 and State Route 99 Interchange Bridge.

**CRITICAL ISSUES REVIEW / FEASIBILITY REPORT
BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS**

Appendix A
November 2007



New carrot crop growing in the southern portion of the Bakersfield College South Center Campus Site.

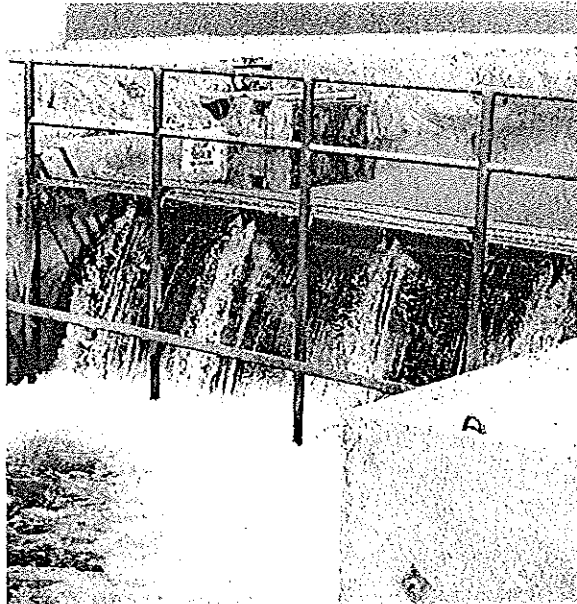


Water District Employee removing checks on the Kern Island Canal to deliver irrigation water to fields south of the Bakersfield College South Center Campus Site.

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**CRITICAL ISSUES REVIEW / FEASIBILITY REPORT
BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS**

Appendix A
November 2007



The Kern Island Canal is the western border of the Bakersfield College South Center Campus Site.

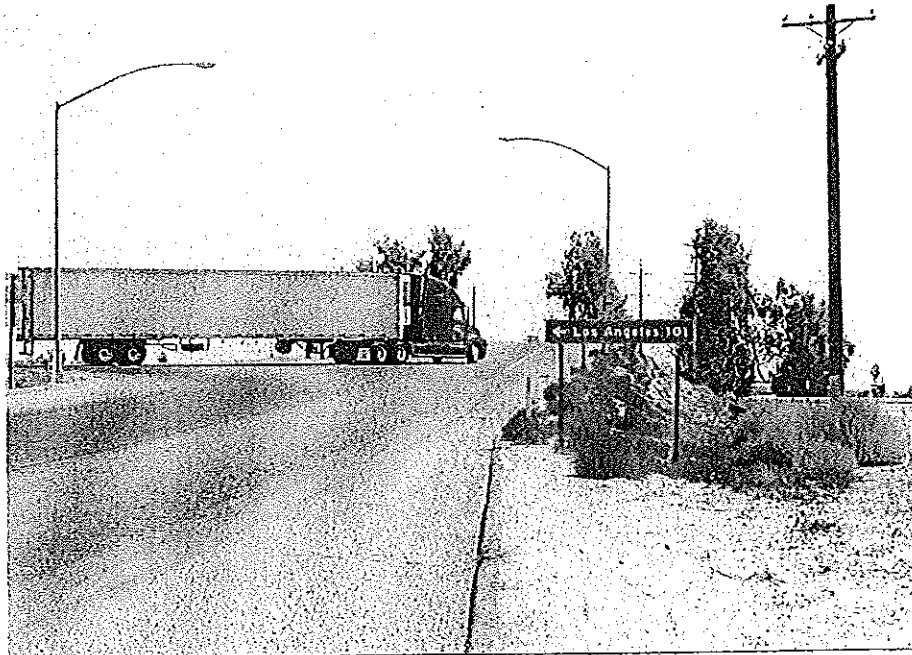


Farm equipment cultivating the land on the Bakersfield College South Center Campus Site.

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CRITICAL ISSUES REVIEW / FEASIBILITY REPORT BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS

Appendix A
November 2007

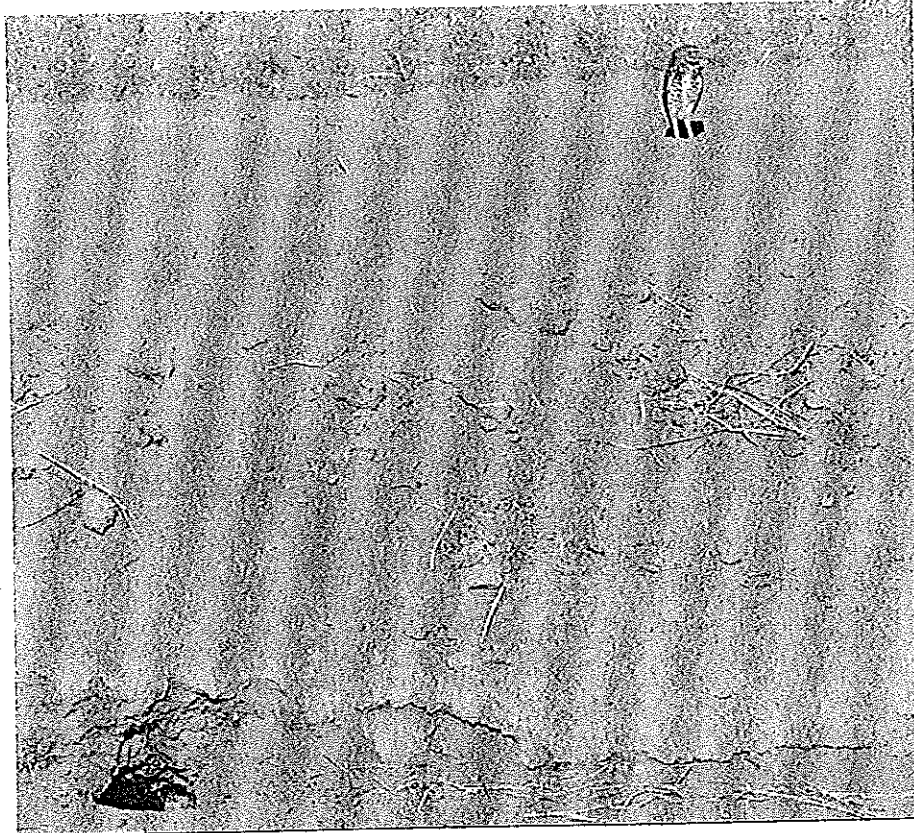


State Route 223 is a Designated Truck Route for the Region Connecting State Route 99 to State Route 58.



Drainage sump area directly across State Route 223 north of the Bakersfield College South Center Campus Site.

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CRITICAL ISSUES REVIEW / FEASIBILITY REPORT
BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS
Appendix A
November 2007



Western Burrowing Owl and its burrow on the Kern Island Canal immediately west of the Bakersfield College South Center Campus Site.

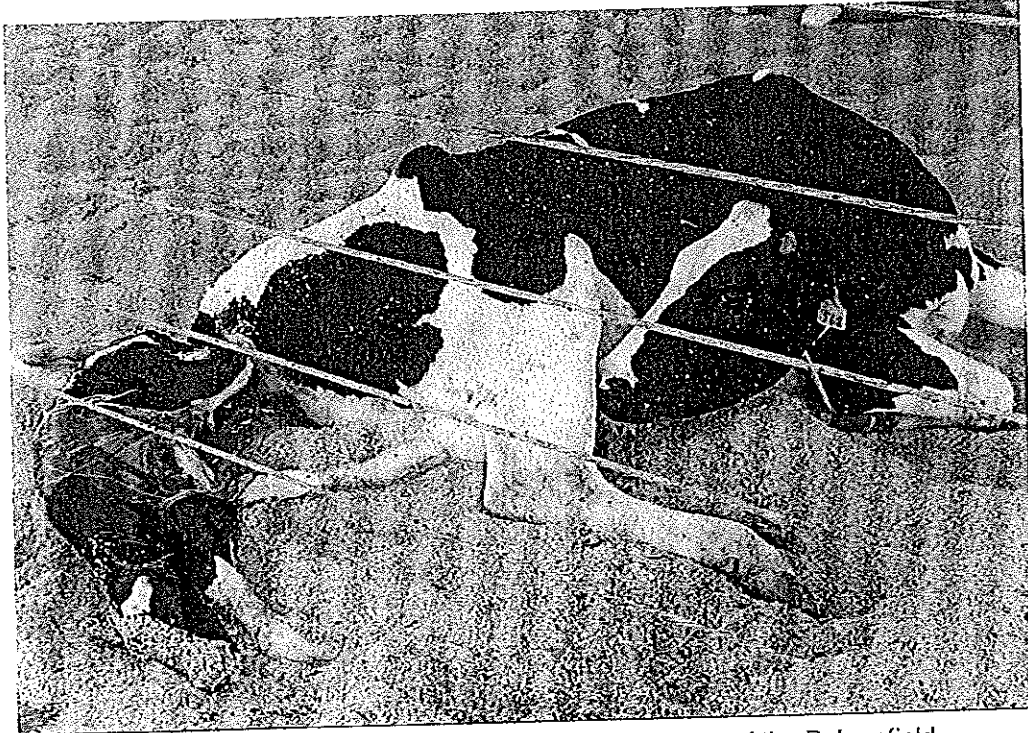


Truck Stop and Highway Commercial Property for Sale immediately north of the Bakersfield College South Center Campus Site.

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**CRITICAL ISSUES REVIEW / FEASIBILITY REPORT
BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS**

Appendix A
November 2007



New Born Calf and Mama Cow looking on at Dairy just west of the Bakersfield College South Center Campus Site.

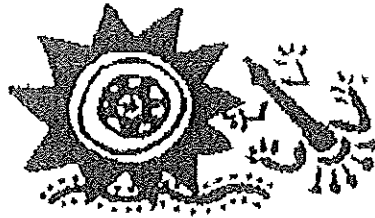
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**CRITICAL ISSUES REVIEW / FEASIBILITY REPORT
BAKERSFIELD COLLEGE – SOUTH CENTER CAMPUS**

Appendix B
November 2007

APPENDIX "B": CULTURAL RESOURCES RECORDS SEARCH

**CALIFORNIA
HISTORICAL
RESOURCES
INFORMATION
SYSTEM**



**FRESNO
KERN
KINGS
MADERA
TULARE**

Southern San Joaquin Valley
Archaeological Information Center
California State University, Bakersfield
9001 Stockdale Highway
31 MW
Bakersfield, California 93311-1022
(661) 654-2289 FAX (661) 654-2415
E-mail: abaldwin@csub.edu

TO: Kim Garrett, Environmental Scientist
Stantec Consulting, Inc.
2590 Venture Oaks Way
Sacramento, CA 95833

(RS# 07-310)

DATE: October 4, 2007

RE: Project # 184100508: Proposed Bakersfield College Southwest Center
Specific Plan

County: Kern

Map(s): Conner and Weed Patch 7.5's

RECEIVED

COPY

CULTURAL RESOURCES RECORDS SEARCH

The Southern San Joaquin Valley Information Center is under contract to the State Office of Historic Preservation and is responsible for the local management of the California Historical Resources Inventories. The following are the results of a search of the cultural resources files at the Southern San Joaquin Valley Archaeological Information Center. These files include known and recorded archaeological and historic sites, inventory and excavation reports filed with this office, and properties listed on the National Register of Historic Places, The Historic Property Data File, (9/3/07), the California Historical Landmarks, the California Inventory of Historic Resources, and the California Points of Historical Interest.

PRIOR CULTURAL RESOURCE INVENTORIES WITHIN THE PROJECT AREA AND A ONE-MILE RADIUS

According to our records there have been (3) three cultural resource surveys conducted within the project area, KE-1067, 2369 and 1137 (approximate location). There has been one survey conducted immediately adjacent, KE-3042 and (5) five surveys conducted within a one-mile radius. Surveys and their associated report numbers are plotted on the project map.

KNOWN CULTURAL RESOURCES WITHIN THE PROJECT AREA AND A ONE-MILE RADIUS

There are no recorded cultural resources within the project area and it is not known if resources exist there.

10/04/07

(RS# 07-310)

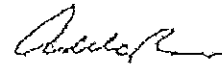
There are (2) two recorded cultural resources within a $\frac{1}{2}$ mile radius, P-15-003283 & 11531 and one recorded cultural resource within a one-mile radius, P-15-002244. Cultural resources are plotted on the enclosed project map.

There are no cultural resources within the project area that are listed in the National Register of Historic Places, the California Register, State Historic Landmarks, California Inventory of Historic Resources, or the California Points of Historical Interest.

COMMENTS

Prior to ground disturbance activities, including grading, a qualified professional archaeologist should conduct a field survey of the entire project area to determine if cultural resources are located there. The archaeologist of your choice should contact our office in order to obtain the information needed to conduct the field work. A referral list is available upon request. If you have any questions or need additional information, please don't hesitate to contact me at (661) 654-2289, by fax or email.

By:



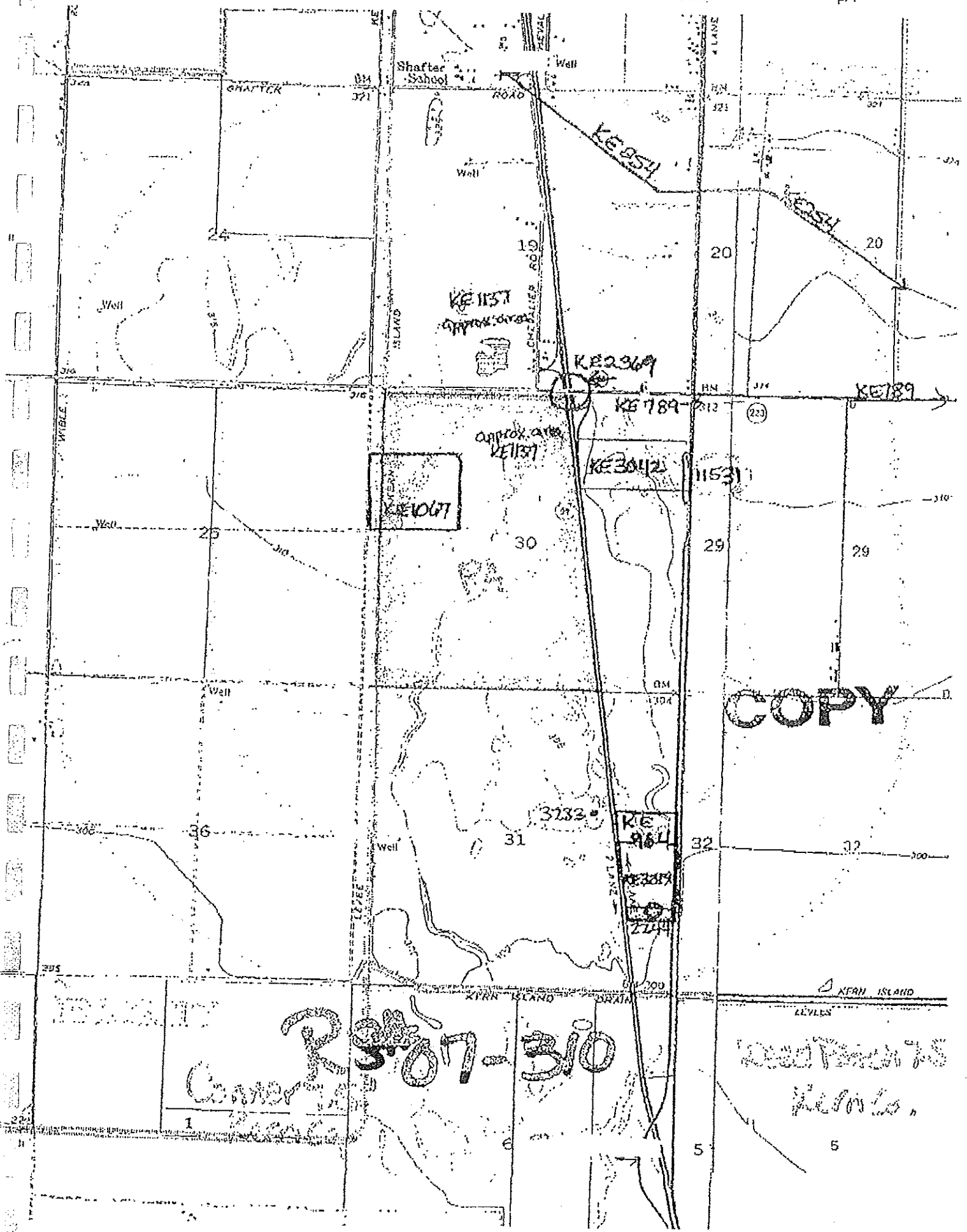
Adele Baldwin
Assistant Coordinator

Date: October 4, 2007

COPY

Fee: \$225.00/hr. (Priority Service)

Invoice # A4623



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