



Vision for Strategic Growth

San Luis Obispo County
2025 and Beyond

California Polytechnic State University, San Luis Obispo
College of Architecture and Environmental Design
Department of City and Regional Planning
Community Planning Studio CRP 554

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“You cannot escape the responsibility of tomorrow by evading it today.”

- President Abraham Lincoln

San Luis Obispo County (County) faces the awesome challenge to plan sustainably for the future. Individual definitions of sustainability differ, however there is consensus that crucial resources are diminishing while at the same time the County population is projected to increase.

In order to lessen the negative impacts brought forth by the unbalanced relationship between available resources and population growth, the County needs to plan for the future sustainably. We recommend that the County use strategic growth in order to plan for future sustainability.

This document, Vision for Strategic Growth: San Luis Obispo County 2025 and Beyond (Vision), defines strategic growth for the County in a three step process and concludes with a recommendation of strategic growth implementation.

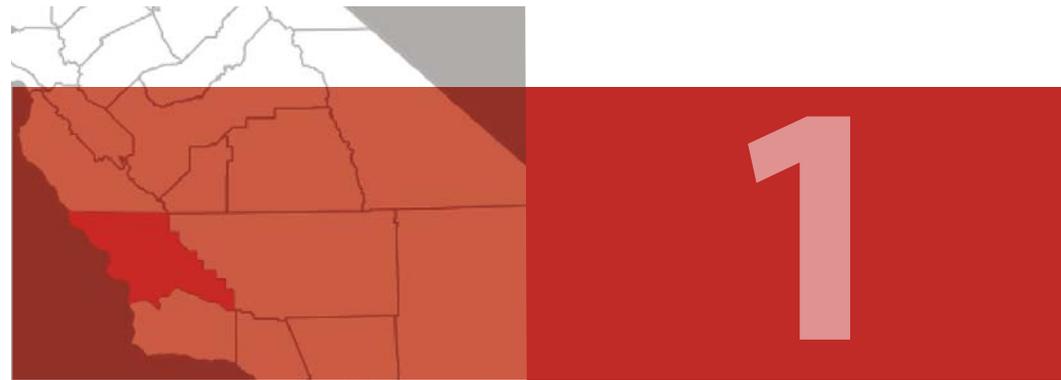
First, the Vision provides background information regarding the history of strategic growth in the County. It also connects this history with current statewide legislation. Second, the Vision identifies where strategic growth should go in the County.

A model is used as a tool to locate and prioritize suitable sites for strategic growth in the County. Third, the Vision creates design concepts for future development. These design concepts intimately connect land use patterns and transportation. Finally, the Vision offers a process to follow for implementing strategic growth in the County that is based on phasing, public awareness and collaboration.

The Vision is a Cal Poly City and Regional Planning graduate student studio (two quarter) case study of strategic growth in the County. The main goal of the Vision is to inform stakeholders of the strategic growth potential in the County. The goal attempts to answer two main questions. First, is strategic growth possible in the County? Second, where would it go and what would it look like?

The Vision is comprised of the following Chapters:

- Chapter 1:**
Strategic Growth Goals for San Luis Obispo County
- Chapter 2:**
The Vision and State Legislation
- Chapter 3:**
A Theoretical Model for Strategic Growth
- Chapter 4:**
Concepts for the Form of Development in 2025
- Chapter 5:**
Issues that San Luis Obispo County will have with Strategic Growth
- Chapter 6:**
Implementation Strategies for Strategic Growth in San Luis Obispo County



1

LEGISLATION MODEL BACKGROUND IMPLEMENTATION POPULATION RELATIONSHIP INCREASE STUDY
COUNTY
STRATEGIC
GROWTH
VISION
SAN LUIS
CIBISO
CONCEPTS
DESIGN
SUSTAINABILITY
DEVELOPMENT
PLAN
SUSTAINABLY
RESOURCES
HISTORY
LAND
RECOMMENDATION
GO
IMPACTS
SECOND
AWARENESS
DOCUMENT
TWO
LOCATE
YEAR
GO
INFORM
CONNECT
PUBLIC
CHALLENGE
PROVIDES
CONCEPTS
REGARDING
PLANNING
PROJECTED
FOLLOWING
LOOK
RECOMMEND
ISSUES
ANSWER
CENTRES
FIRST
MAIN
DIMINISHING
POLY
THREE
NEEDS
CITY
CAL
FOURTH
CASE
LESSEN
PAINING
DEPENDING
LIKE
FACES
TRANSPORTATION
SUSTAINABILITY
DESIGN
SUSTAINABILITY
DEVELOPMENT
PRIORITY
FINALLY
THIRD
TOOL
HOWEVER
ALSO
STRATEGIES
STUDENT
QUESTIONS
SUITABLE
POTENTIAL
CREATES
BEYOND
DEVELOPMENT
STATE
TIME
CREATES
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DEVELOPMENT
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TIME

INTRODUCTION & BACKGROUND

Strategic Growth Goals for San Luis Obispo County

The County has taken several steps toward achieving the goal of sustainability since the 1980s. Figure 1.1 Overview of County Sustainable Movements, provides an overview of these collaborative efforts that culminates with a key effort for countywide sustainability in 2005. The table highlights work done jointly on various aspects of sustainable planning.

In 2005, the County Board of Supervisors adopted Guiding Principles of Smart Growth. In 2008, the Planning and Building Department proposed the Amendments to Framework for Planning (Inland) General Plan Amendment LRP2005-00013 Proposed Modifications to the Planning Commission Recommended - Draft September 29, 2008. (See Appendix A)
The amendments address the County's 2005 Strategic Growth principals.

In July 2008, the Board of Supervisors directed Planning Staff to conduct more community outreach, in an effort to involve stakeholders and gather their input. The County explains strategic growth as planning that combines well-known smart growth concepts with results-oriented, strategic planning that reaches goals effectively.

The major issues addressed in strategic growth planning are:

- Use energy, transportation, infrastructure and water resources efficiently.
- Building compact, walkable communities with adequate infrastructure and resources
- Planning neighborhoods near schools, recreation, jobs, and shopping.

By addressing these issues the County will be able to continue to pursue the goal of sustainably while improving the quality of life and economic health for current and future residents. Using strategic growth planning at all levels of development (regional, sub-regional, communities, neighborhoods, and individual projects) allows the entire county to benefit as a whole.

Overview of County Sustainable Movement	
1987	Aesthetics of the Rural Renaissance
1989	Growth Management Strategies and Policies for the Future of San Luis Obispo County.
1993	Designing the Future.
1997	Focus on the Future.
2003	Regional Community Meeting-It Takes A Region.
2005	Board of Supervisor Adopted Smart Growth Principles

Figure 1.1 Overview of County Sustainable Movements

Figure 1.2 San Luis Obispo County



The County aims to implement their strategic growth plans through cost-effective, realistic strategies that will benefit the environment, the economy, and communities. Before embarking on this goal it is important to have a clear understanding of the terminology that is being used. Sustainability, Strategic Growth, Smart Growth, and New Urbanism are expressed visually in Figure 1.3.

The County's Strategic Growth proposals have the following goals:

- 1. Sustain the County's most precious resources.**
- 2. Protect agriculture as an industry.**
- 3. Encourage most future growth to be within exiting and expanded cities, urban areas, and village areas in a more compact pattern.**
- 4. Give high priority to infrastructure improvements in a timely manner.**
- 5. Create conditions for more economic and civic vitality within communities.**
- 6. Locate new employment areas near customers, residential areas, and transportation.**



Figure 1.3 Hierarchy of Movements

Sustainability is the broad, all-encompassing concept of planning to meet the needs of the present population without sacrificing the ability of future generations to meet their own needs. Strategic growth, smart growth, and new urbanism all act as implementation efforts.

Strategic Growth is the largest scale effort of implementing sustainability on a regional level (crossing county lines).

Smart Growth is the next largest scale effort of implementing sustainability, typically done for individual cities, but can also include unincorporated areas of a county too.

New Urbanism is the smallest scale implementation of sustainable planning, focusing on design principles aimed at creating compact, anti-sprawl, walkable, mixed-use neighborhoods.

Sustainability, Strategic Growth, Smart Growth, and New Urbanism relate to the overall principles of the County's strategic growth guidelines and goals. Strategic growth embodies many of the principles of Sustainability, Smart Growth, and New Urbanism. This chapter will define these terms. Figure 1.2 depicts the hierarchical ordering of sustainability and planning practices:

Sustainability

According to the U.S. Environmental Protection Agency, sustainability is "meeting the needs of the present without sacrificing the ability of future generations to meet their own needs." (EPA, 2008)

It requires a long-term integrated systems approach to balancing the three sustainability "pillars": environment, economy and social equity, as seen in Figure 1.4 – Three Pillars of Sustainability.

According to the EPA, sustainable development combines two important themes:

- 1. Environmental protection does not prevent economic development, and**
- 2. Economic development must be environmentally feasible now and in the long run (EPA, 2008).**

Proponents of sustainability understand that the population will continue to grow. The increasing population is imposing new stresses on the earth's resources and society's ability to maintain environmental quality. This requires acknowledgment that future generations will need many of the same resources used today. In order to be sustainable people cannot rely on resources that are not renewable or reusable. They also cannot use renewable resources faster than they can be replenished.

Sustainability does not aim to stop all development. It supports development that will occur based on a long-term understanding of what resources will be required. This forward-thinking development should make an effort to ensure those resources will be available.

Strategic Growth

Strategic growth is a land use principle that implements sustainability and smart growth as a basis for future growth and development. Strategic growth requires a long-range time scale and a regional perspective. Collaboration is a key element to strategic growth.

It is important that the County is focusing their strategic growth efforts on addressing implementable goals and strategies. A strong framework is necessary in order to address the specific needs of the County. Working towards sustainability affects all cities, communities, and unincorporated areas within the County. Because every region is unique, each area should address the principles of smart growth differently; placing emphasis on principles related to specific conditions of that area.

After reviewing the County's strategic growth plans strategic growth for the County should specifically apply certain smart growth principles to the existing cities, communities, and unincorporated areas. The County should look at specific issues that will have a direct impact on its ability to become and remain sustainable.

Five issue areas have been identified as key components to the County's future sustainability:

- Land Use/Transportation
- Water
- Energy
- Financial Solutions
- Public Awareness

Please refer to Appendix B for a further discussion of these issue areas

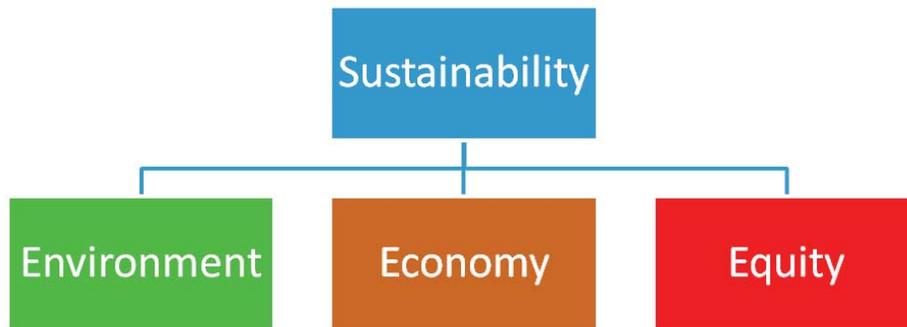


Figure 1.4 Three Pillars of Sustainability

The environment encompasses all living and non-living things occurring naturally on Earth. Central to this concept is the idea that all living organisms are continually engaged in a highly interrelated set of relationships with every other element in the environment which they exist

An economy is the realized social system of production, exchange, distribution, and consumption of goods and services of a country or other area. A given economy is the end result of a process that involves its technological evolution, civilization's history and social organization, as well as its geography, resource endowment, and ecology, among other factors.

Social equity believes that all people, regardless of their differences in ethnicity, social class, and anything else, should all be given equal access to resources and should not bare excess responsibility for the maintenance of these resources.

Smart Growth

Smart Growth is a set of principles that focuses development and redevelopment within existing populated areas. According to The Smart Growth Network (www.smartgrowth.org) there are ten principals.

Ten principles of Smart Growth are:

- 1. Create range of housing opportunities and choices**
- 2. Create walkable neighborhoods**
- 3. Encourage community and stakeholder collaboration**
- 4. Foster distinctive, attractive communities with a strong sense of place**
- 5. Make development decisions predictable, fair and cost effective**
- 6. Mix land uses**
- 7. Preserve open space, farmland, natural beauty and critical environmental areas**
- 8. Provide a variety of transportation choices**
- 9. Strengthen and direct development towards existing communities**
- 10. Take advantage of compact building design**

These principles are not written to be anti-growth, anti-automobile, or anti-suburb. Instead they recognize that development cannot continue to occur in a sprawling, unsustainable way. Neighborhoods cannot continue to be built further away from businesses, schools, and commercial

areas, requiring people to drive everywhere. New development should be more concentrated around existing urbanized areas. Having more compact neighborhoods, with a mix of uses offer many benefits to cities and communities. This can strengthen economies by providing additional housing choices for the workers that local businesses and the service industries need.

A more compact area can decrease the need for commuting and lessen traffic. By utilizing and expanding existing infrastructure the cost of providing public services, like water, sewer and roads can be reduced. Costs tend to increase when new infrastructure is built farther away from the sources of water, sewer, and energy. It can also help preserve space for community parks and outdoor recreation areas.

Smart growth invests time, attention, and resources in restoring community and vitality to center cities and older suburbs. The Smart Growth Network explains smart growth as development that is "more town-centered, is transit and pedestrian oriented, and has a greater mix of housing, commercial and retail uses. It also preserves open space and many other environmental amenities" (Smart Growth Network, 2008).

RENAISSANCE TOWN CENTER

New design looks like a small town

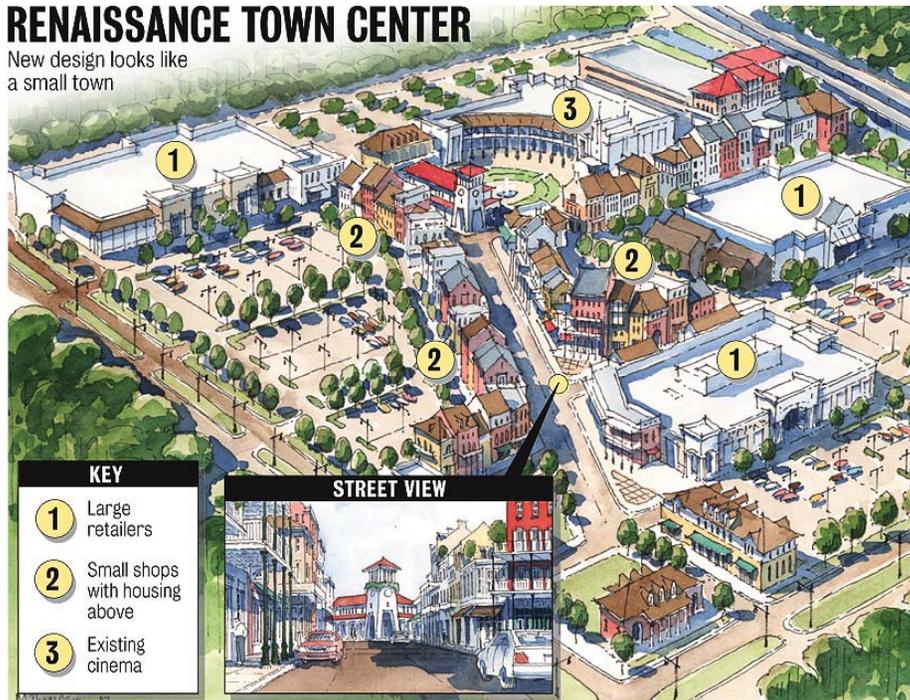


Figure 1.5 Urban Design by Duany-Zyberk; Architectural Design by Mike Thompson of Barranco Architects



Figure 1.6 Celebration, Florida



Figure 1.7 Seaside, Florida

New Urbanism

New Urbanism is a design principle aimed at creating compact, anti-sprawl, walkable, mixed-use neighborhoods. These designs place importance on green architecture, energy conservation, historic preservation, and ease of accessibility. Typically these are purpose-built new communities, such as Seaside, Florida, that resemble old European villages, but also follow many of the design principles used in Central America and Mexican villages.

Based on the thirteen principles developed by Andres Duany and Elizabeth Plater-Zyberk Architects, Inc. (DPZ), the following features characterize New Urbanist communities. These developments often have a discernible center, such as a square or green. They provide a variety of dwelling types that are in close proximity, usually within a five-minute walk, to the center.

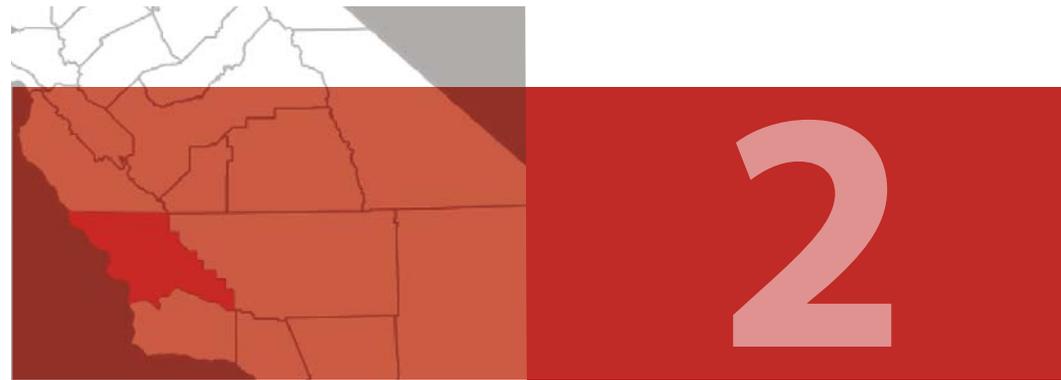
Developments plan for elementary schools, open space, and playgrounds to be within one mile of all homes. The design network of streets is narrow in order to slow traffic and create pedestrian and bicycle friendly environments. The streets are interconnected, providing linkages between homes and the surrounding community.

House design places parking lots and garage doors in the rear of buildings, opening up front yards for lawns and porches. Civic buildings are typically located in a prominent area within the site. Smaller scale individual infill projects in urban and suburban areas also attempt to use these design features where possible (Duany & Plater-Zyberk, 2008).

There are many overlapping concepts shared by smart growth and new urbanism. However, these two applications of sustainability have a key difference which is the scale of how each is implemented.

Smart growth strategies look at applying sustainability to the overall community or region. Its principles address tasks such as designating growth areas, managing resources within a region, and protecting open space and wildlife.

New urbanism uses design standards to promote neighborhood-based development that implements many smart growth principles. The creation of new town developments or individual infill projects use specific design guidelines to create more traditional, pedestrian-oriented developments in an attempt to reform urban planning policies that have led to sprawl.



TRUE EMISSIONS HEAT WARMING
GREENHOUSE AIR DIRECTLY PROVIDING
LEGISLATIONS REGIONAL ENVIRONMENTAL
QUALITY DEVELOPMENT COUNTY-WIDE
STATE SOLUTION DEPENDENCY
DEGRADATION GHG IMPACTS AUTO CONCLUDES
REQUIRES IMPROVING INCLUDING DESCRIPTION ACCUMULATE SCIENTIFIC
DISCUSS CONSENSUS LEGISLATION THEREFORE ENGINES
RESPONSE EXAMPLES

THE VISION & STATE LEGISLATION

The Vision and State Legislation



Figure 2.1 California State Capitol

The current pattern of development has led to County-wide auto dependency. There are a number of negative impacts of auto dependency. One of them is poor air quality. The emissions from internal combustion engines are known as greenhouse gasses (GHG). When GHG accumulate in the atmosphere they trap heat. There is consensus among the scientific community that global warming is causing environmental degradation and is affecting several natural systems including air quality.

True to the cyclical nature of environmental systems, improving air quality is a problem that requires a regional and a local solution. There is no one solution to the problem. Therefore, the Vision supports the County's strategic growth goals by providing examples of strategic growth solutions.

This chapter will discuss how state legislation is pressuring the County's vision of strategic growth, what the County's is doing in response to that pressure, and concludes with a description of how state legislations is directly affecting the County.

Assembly Bill 32

State legislation is pushing the County towards accomplishing its strategic growth goals. For example, the state of California has addressed sustainability, more specifically climate change, with Assembly Bill 32 (AB 32). In a press release from the Governor's Office in 2008, Governor emphasized, Arnold Schwarzenegger, "Californians need to rethink how we design our communities."

WHAT IS AB 32?

AB 32, the California Global Warming Solutions Act, is an environmental law signed by the Governor of California, Arnold Schwarzenegger, on September 27, 2006. The Bill establishes a process for creating time tables and indicators which bring California into near compliance with the provisions of the Kyoto Protocol. The protocol requires that by 2020 the state's GHG emissions

be reduced to 1990 levels. That is roughly a 25% reduction.

AB 32 is the first large-scale program to achieve quantifiable and achievable reductions of GHGs. (Nunez, 2006) The California Air Resources Board (CARB), under the California Environmental Protection Agency, is to prepare plans to achieve the objectives stated in AB 32 by creating timetables and indicators for reducing GHG emissions. CARB is responsible for monitoring the reduction of GHG emissions.

CARB's duties:

- *Adopt early action measures that can be implemented before January 1, 2010.*
- *Establish a state-wide GHG 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 GHG sources via regulations, market mechanisms and other actions.*

Evaluate:

1. *Impacts on California's economy, the environment, and public health.*
2. *Equity between regulated entities.*
3. *Electricity reliability, conformance with other environmental laws.*
4. *Rules so that they do not disproportionately impact low-income communities.*

WHAT IS THE GOAL OF AB 32?

The goal of AB 32 is to reduce the state's GHG emissions to 1990 levels by the year 2020. On September 25, 2008, CARB adopted the Local Government Operations Protocol. This is designed

California's Carbon Dioxide Emission Reduction Strategies



Figure 2.2 California's CO₂ Emission Reduction Strategies

to provide a standardized set of guidelines to assist local governments on calculating and inventorying GHG emissions,

Additionally, The "Local Government Toolkit" provides the following guidance:

- Decision Support
- Cost-saving Action Areas to Reduce GHG Emissions,
- California Case Studies,
- Financial Incentive Programs,
- A Climate Calculator,
- A Peer-Networking Online Discussion Forum
- An Award Program.

RELEVANCE OF AB 32 TO THE COUNTY

GHG emissions can be recuded by rethinking our travel patterns on the block, neighborhood, city and regional scale. Since local governments are tasked with calculating and inventorying GHG emissions the principles we recommend will help achieve the emissions reductions mandated by CARB.

San Luis Obispo County Conservation and Open Space Element - Update 2009

As a result of recent legislation the County is in the process of revising elements of the General Plan. The Conservation and Open Space Element 2009 Update (COSE) is one example of a local government response to state-wide legislation. COSE is provides the policy framework for implementation of strategic growth throughout the County.

On August 1, 2006 the San Luis Obispo County Department of Planning and Building was authorized to begin the process to update the Conservation Element of the General Plan. The County retained Pacific Municipal Consultants (PMC) to assist with the Conservation Element Update.

The updated Conservation Element will consolidate the following existing General Plan elements:

- Conservation Element
- Historic Element
- Esthetic Element
- Energy Element
- Off-Shore Element
- Agriculture and Open Space Element

The goal of this consolidation process is to create one stand alone document with the following eight chapters:

- I. Air Quality
- II. Biological Resources
- III. Cultural Resources
- IV. Energy Resources
- V. Mineral Resources
- VI. Open Space Resources
- VII. Visual Resources
- VIII. Water Resources

In addition to the consolidation of existing General Plan elements the following items will also be incorporated into the document. First, the Conservation Element will have new energy policies that include green building. Second, a chapter on Local Response to Greenhouse Gas Emissions will be added to the Conservation Element. Third, water conservation policies will be strengthened and a review of night-skies policies will be conducted. Fourth, new native and non-native tree policies will be added to the Conservation Element. Finally, the Conservation Element will be aligned with strategic growth policies as defined in this document.

The Draft Conservation and Open Space Element (COSE) update was made available for public comment and review in December 2008. Comments by the public were being accepted by the County until February 27, 2009, and will be considered in preparing the next draft of the COSE.

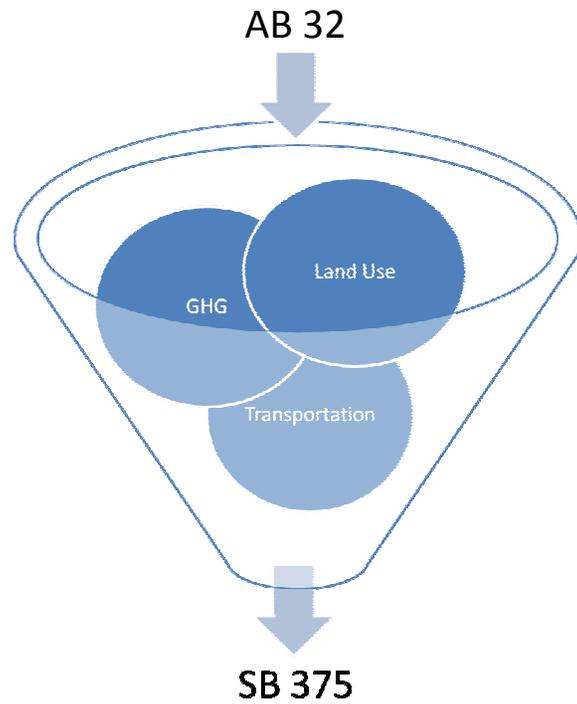


Figure 2.3 Relationship of legislation and issues

Reduce per capita vehicle miles traveled by locating new community commercial centers near major activity nodes and transportation corridors.

COSE outlines a new direction for the County's preservation and conservation of its resources in perpetuity. Nine resources were listed in the COSE's update:

1. *Air Resources*
2. *Biological Resources*
3. *Cultural/Historic Resources*
4. *Energy*
5. *Minerals*
6. *Open Space*
7. *Soils*
8. *Visual Resources*
9. *Water Resources*

The number one goal in the Air Resources section of COSE clearly aligns with the goals set out by AB 32.

Senate Bill 375

Senate Bill 375 (SB 375) is another way for the County to address strategic growth goals. SB 375 is a more specific piece of legislation that describes how the goal of AB 32 can be implemented on a local level.

WHAT IS SB 375?

SB 375 is a senate bill that supports and implements AB 32. SB 375 is an environmental law signed by Governor of California, Arnold Schwarzenegger, on September 30, 2008. The goal of SB 375 is to provide transportation funding as an incentive for private developers to design and build, transit-oriented development (TOD). Additionally the law establishes relaxed California Environmental Quality Act (CEQA) requirements for projects that satisfy certain Sustainable Community Strategy (SCS) criteria. These incentives give developers a reason to build projects that reduce vehicles miles traveled (VMT) and ultimately, GHG emissions. The bill is an attempt to meet the reduction goals mandated by AB 32 (Moir and Till, 2008, p. 3).

WHAT IS THE GOAL OF SB 375?

The goal of SB 375 is to reduce GHG by reducing VMTs. The goal can be accomplished by providing transportation funding and establish relaxed Cali-

fornia Environmental Quality Act (CEQA) requirements for projects that satisfy certain Sustainable Community Strategy (SCS) criteria as incentives for private developers to design and build transit oriented developments (TODs).

RELEVANCE OF SB 375 TO THE COUNTY

Transportation funding is one incentive for SB 375. SB 375 mandates Metropolitan Planning Organizations (MPOs), such as the San Luis Obispo Council of Governments (SLOCOG), to prepare a new regional planning document called a Sustainable Community Strategy which becomes part of the MPOs Regional Transportation Plan (RTP). An SCS is a plan for regional transportation infrastructure and development that is designed to reduce GHG emissions from cars and light trucks by reducing VMTs.

An SCS must coordinate and balance mass transportation, highway, railroad, maritime, bicycle, pedestrian, goods movement, and aviation facilities. CARB then reviews the SCS prepared by the MPO, to confirm that it will meet the region's target GHG emission reductions for cars and light trucks (the two greatest sources of GHGs). MPOs that do not meet the SCS requirements must develop a second plan called an Alternative Planning Strategy (APS) which is separate from the RTP. An APS does not affect transportation funding, but must still outline how the MPO will meet target emission reductions. (Fulton, 2008, p. 4) Essentially counties and cities that continue to promote sprawling developments will not receive state funding.

In addition to transportation funding, CEQA streamlining is another incentive of SB 375. SB 375 provides relaxed CEQA requirements for two types of development. The first type is for residential projects that are consistent with the SCS (or APS) that CARB agrees are sufficient to achieve the GHG emission reduction targets for the region. (Higgins, 2008, p. 12) The other is for Transportation Priority Projects (TPP) which also must be consistent with the SCS or APS. TPPs, must contain at

SB 375 Process

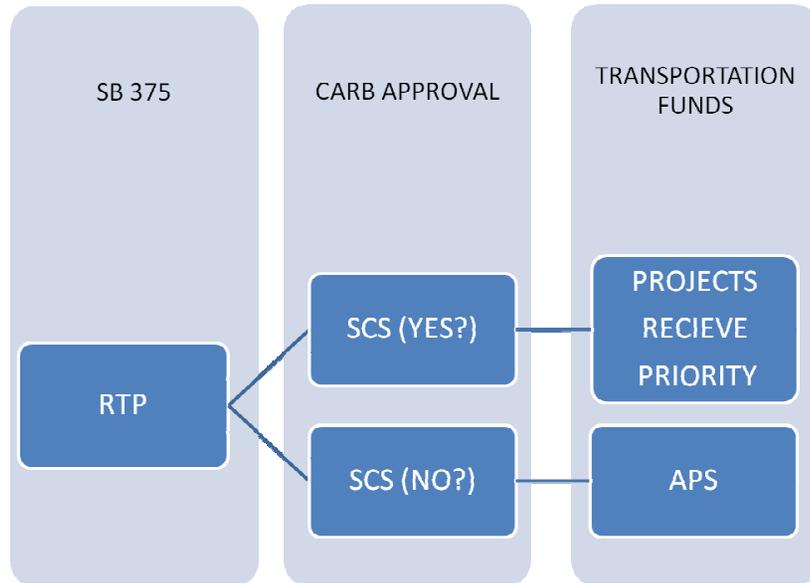


Figure 2.4 SB 375 process

least 50 % residential use, with a density of at least 20 units per acre. Also TPPs must be located within a half mile of a major transit stop or a high quality transit corridor. This CEQA exemption requires satisfaction of stringent criteria which make it very exclusive.

According to the Technical Overview of SB 375 conducted by the League of California Cities (LCC), a TPP is exempt from CEQA if it complies with an extensive list of requirements including the following (Higgins, 2008, p. 13):

1. *Not more than 8 acres and not more than 200 residential units.*
2. *Can be served by existing utilities.*
3. *Does not have a significant effect on historical resources.*
4. *Buildings are 15% more energy efficient than required and buildings and landscaping is designed to achieve 25% less water usage.*
5. *Provides EITHER a minimum of 5 acres per 1,000 residents of open space, or 20% housing for moderate income, or 10% housing for low income, or 5% housing for very low income (or in lieu fees sufficient to result in the development of an equivalent amount of units).*

Furthermore, a TPP that “does not qualify for a complete exemption from CEQA may qualify for a sustainable communities environmental assessment (SCEA) if the project incorporates all feasible mitigation measures, performance standards, or criteria from prior applicable environmental impact reports” (Higgins, 2008, p. 13) A SCEA is comparable to a negative declaration in environmental impact reports (EIR) due to the fact that all impacts which may be deemed as significant or potentially

significant must be mitigated to a level of insignificance. The technical review conducted by the LCC identifies the following differences between a traditional negative declaration and a SCEA (Higgins, 2008, p. 13):

1. Cumulative effects of the project that have been addressed and mitigated in prior environmental impacts need not be treated as cumulatively considerable.
2. Growth-inducing impacts of the project are not required to be referenced, described or discussed.
3. Project specific or cumulative impacts from cars and light truck trips on global warming or the regional transportation network need not be referenced described or discussed.

Another essential element of the SCEA is that review will be done under the “substantial evidence” standard in lieu of the “fair argument” test as the standard of review for a sustainable communities’ environmental assessment. It is also important to note that while SB 375 authorizes traffic mitigation measures, such as street improvements to control traffic, a “TPP does not need to comply with any additional mitigation measures for the traffic impacts of that project on streets, highways, intersections, or mass transit if traffic mitigation measures have been adopted” (Higgins, 2008, p. 13).

In summary, SB 375 is an attempt to meet the reduction goals mandated by AB 32 (Moir and Till, 2008, p. 3). SB 375 has specific tasks and explicit targets to guide our local agencies. These targets are to be achieved using transportation funding and a streamlined environmental review process to incentivize developers to incorporate dense, transit oriented development.

League of California Cities Technical Overview of SB 375

Issues	SB 375	SB 375
	March 24, 2008 Version	Final Version
Restrictions on Transportation Funding?	Transportation investments within the RTP were based upon a set of assumptions about resource lands that did not necessarily reflect the content of local general plans.	The requirement for the SCS to identify resource lands is gone. Local officials on MPO boards retain discretion over the funding within RTP. If the SCS cannot achieve the regional GHG target, the region must create an APS that could achieve the GHG target. But the APS is not part of the RTP. Funding for projects must be consistent with the SCS, but not necessarily the APS.
Meaningful CEQA Relief?	CEQA provisions had several preconditions that made it unlikely that they would broadly applied	Contains two forms of CEQA relief. The first exempts residential projects from reviewing the impacts related to cars and light trucks on projects that are consistent with a plan to reduce GHGs from that source. The second is for defined infill projects near transit choices.
Mandatory Growth Allocations in SCS of Regional Transportation Plan?	Required MPOs to do mandatory and heavily prescribed growth management within the regional transportation plan (RTP), which came to be known as "concentric circle" planning	Mandatory growth management has been removed and the requirement in earlier drafts that a region "identify resource lands" has been changed to "gather and consider the best practically available scientific information about resource lands."
Sweeping Resource Land Definitions?	Resource definitions included new ambiguous terms.	The ambiguous environmental land definitions have been clarified to be consistent with current law.
Role for local officials in developing SCS?	None	MPO must adopt an outreach process that includes workshops for local elected officials in each county.
Local Participation Setting Regional GHG Reduction Targets?	Called for a top-down process for setting GHG targets that was unacceptable	Bill now contains a fair process for setting regional targets that includes a statewide advisory committee with League representation. CARB must hold workshops requirements in each region.
Confusion between existing federal laws and SB 375?	It was unclear how the new "Supplement," (now the APS) and the existing federal RTP requirements were related to each other.	Connection between the "Supplement" (now called the "Alternative Planning Strategy or APS)" which is required when a region's RTP cannot meet the regional targets) and the RTP; i.e., the land use pattern in the Alternative Planning Strategy will not affect or be part of the RTP or its funding.
RHNA Consistency and Extension?	The new goal of encouraging infill through transportation investments and the RTP (4 year cycle) directly conflicted with existing RHNA fair share goals (5-year cycle).	The bill achieves a three-year extension of the RHNA process (from 5 – 8 years), making it consistent with the RTP process of two four-year cycles. This achieves a major League goal.

Figure 2.5 Technical Overview of SB 375 conducted by the League of California Cities

How does SB 375 and SLOCOG relate to Strategic Growth?

According to SB 375, development should occur in areas that have a significant population capable of supporting a mass transit system. SB 375 encourages transit oriented development (TOD) designs by awarding TODs state funding. Transit oriented development is a challenge for the County because it presently lacks the critical mass to support a mass transit system that is compatible with TODs. The challenge however can be overcome County-wide by beginning to actively focus development along existing transit corridors rather than maintaining its current development pattern of sprawl.

MPOs are policy-making organizations that allocate state and federal funds for local transportation projects. Typically they are made up of representatives from local government as well as a dedicated staff. MPOs are required by the federal government of any Urbanized Area (UZA) with a population greater than 50,000.

SLOCOG acts as the County's regional MPO. Therefore it has the responsibility and authority to allocate transportation funding. Part of this allocation process is to maintain a Long-Range Transportation Plan (LRTP). This is a fiscally-constrained long-range transportation plan covering a planning horizon of at least 20 years into the future. SB 375, by seeking to implement AB 32, has imposed a new requirement on this LRTP process known as the Sustainable Community Strategy (SCS) and this relates directly to strategic growth.

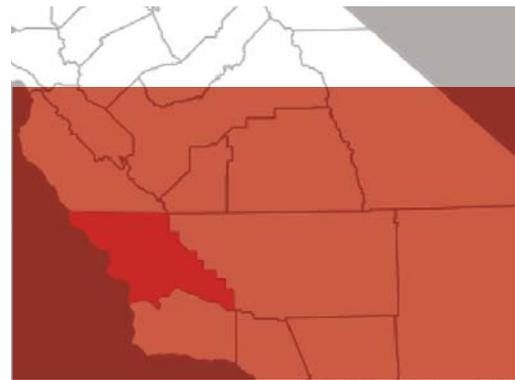
The SCS is a land use planning component that seeks to meet GHG reduction goals set forth by the local Air Resource Board (ARB). It is thought these can be most easily met by a reduction in VMT from more compact development and infill development. Though the full implication of this is unknown, even by the affected agencies, this regional approach to planning is an important change

from the current process where city and County governments have final authority over land use in their jurisdictions with little connection to the regional transportation planning process.

SLOCOG is close to finalizing the latest LRTP with a target draft completion of fall 2009. This update was in process before SB 375 was signed, therefore, it is not required to include an SCS. Despite this, SLOCOG is planning to include a similar land use planning component as part of this update to stay ahead of the legislation. Currently staff is waiting on the GHG targets which are forthcoming from the local ARB (personal communication, J. Worthley, Senior Planner, City of San Luis Obispo on February 3, 2009).

SLOCOG created a document called Community 2050 Blueprint (2050 Blue Print) (SLOCOG, 2008) that also predating SB 375. In many ways it is an indication of the planning process to come. 2050 Blue Print has similar aims to optimize transportation and land use and to reduce VMTs, as stated by SB 375, but is only an advisory document for local governments. Nonetheless 2050 Blue Print is an indicator that transportation planning should correlate with the land use planning component of the LRTP.

Since the LRTP must be approved through a committee process and adopted by a regional board, it is likely to do a better job of coordinating regional growth than the current process. Presently, there is some uncertainty about penalties for noncompliance for regions which do not satisfy the requirements or influence local land-use planning but it is assumed they will be based on funding. Currently, much of this process is still being sorted out by MPOs and local governments.



3



STRATEGIC GROWTH MODEL

Strategic Growth Model

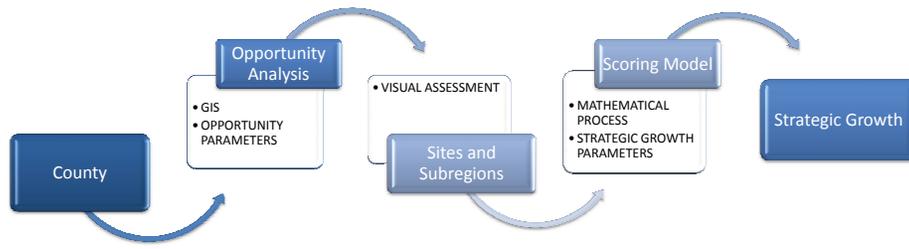


Figure 3.1 Strategic Growth Index

The Model is based on two overriding principles:

1. There is a need to concentrate and focus future growth within the county's jurisdiction in order to implement the objectives of strategic growth.

2. Strategic growth, especially as it relates to concepts of sustainability, is fully dependent upon future regional transportation patterns.

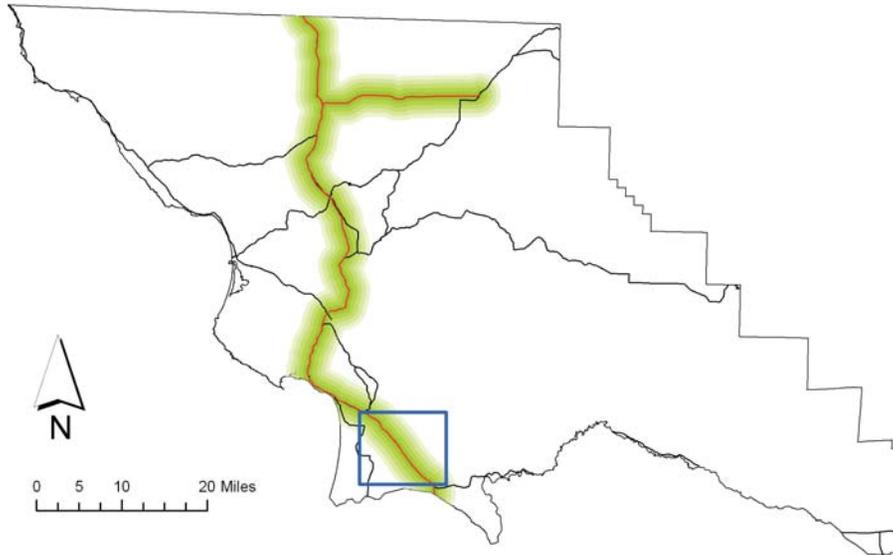
Locating and prioritizing suitable sites for strategic growth will be a controversial yet critical process in the Counties' pursuit of strategic development. This Theoretical Strategic Growth Model (Model) was developed to serve as a theoretical example of an empirical method that may be used to help make appropriate site location decisions.

The Model is essentially a framework. It demonstrates that technology exists to help make quantitative and scientifically based planning decisions. How these decisions are interpreted, however, is an equally important component of implementing a model. The Model's output may influence policy, create incentive opportunities, or simply facilitate discussion.

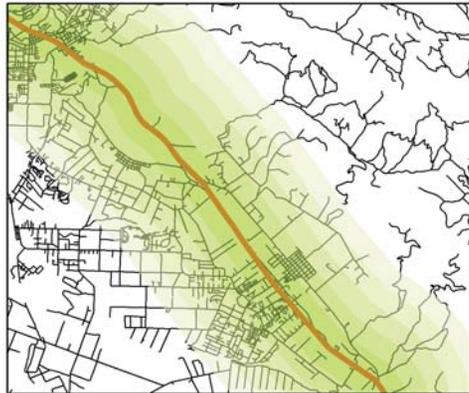
The Model has two distinct components. The first is a spatial analysis component. This component relies on sets of spatial inputs to gradually narrow down and identify land within a County's jurisdiction that is suitable for strategic growth. The second is a scoring component. The component results in a numerical ranking of each site.

These two components combine to create a visual representation of their results with the following GIS maps: Map 1, Map 2, Map 3 and Map 4. Each map is explained below. Maps 1 through 3 incorporate a discussion of the Model's limitations and assumptions. Map 4 provides a brief description of the Model's operation.

Map 1 - Strategic Growth Corridor



Detail



Legend

— Hwy 101 / Hwy 46

Corridor Distance From Hwy in Miles

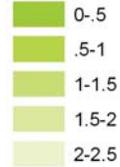


Figure 3.2 Strategic Growth Corridor

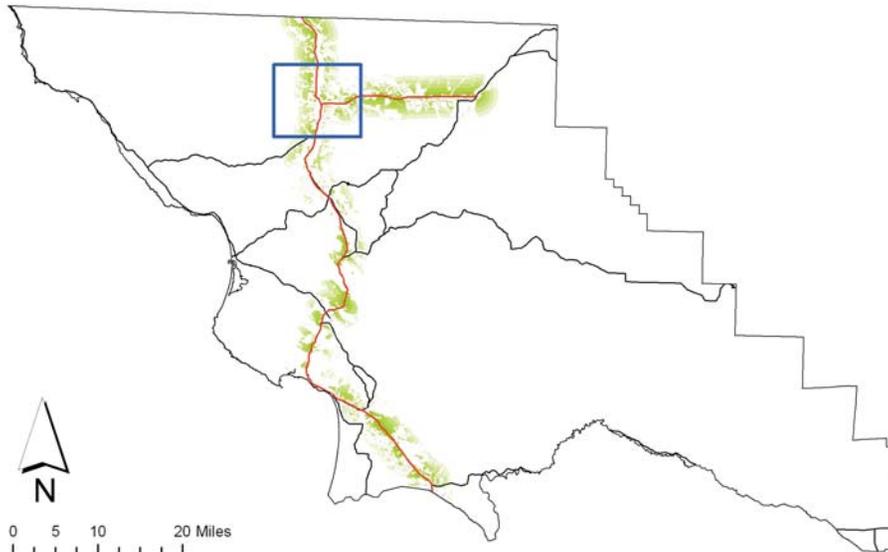
Map 1

The first parameter considered by the spatial analysis component of the Model was proximity to major transportation corridors. Major corridors were defined as Highway 101, our connection with the Bay Area, and Southern California, and Highway 46, our main link to the Central Valley. Strategic growth was limited to sites within 2.5 miles of these corridors, a distance many studies have shown people are willing to ride a bicycle. This Strategic Growth Highway Corridor is displayed in green on Map 1.

The corridor was further divided, using a modified transect theory, into 5 transect distances from .5 to 2.5 miles, these transects will be incorporated into the scoring component of the model. For more information on transect theory see Appendix #

By limiting strategic growth only to sites within a 2.5 mile buffer of major transportation routes, this model is built around a regional transportation framework.

Map 2 - Opportunity Analysis



Detail



Legend

- Hwy 101 / Hwy 46
 - Roads
- Opportunity Sites**
Distance from Hwy in Miles
- .5
 - .5-1
 - 1-1.5
 - 1.5-2
 - 2-2.5

Figure 3.3 Strategic Growth Corridor

Map 2

Map 2 displays the complete results of the spatial analysis component. Within the Strategic Growth Corridor, spatial data for landslide potential, public lands, fire hazard zones, flood zones, fault zones, agricultural soils and parcel size has been analyzed to identify sites that have a high level of development potential.

The Model takes bold positions on agricultural protection and fire hazards that go far beyond current land-use practices. All class I and II soils according to USDA soils maps, and all high severity fire hazard zones according to CalFire, are considered unsuitable for strategic growth.

All spatial data was gathered from the Cal Poly GIS server. Some data sets are outdated and have not been ground checked for errors.

Lands protected from development by privately held easements were not identified in this analysis.

A 20 acre minimum parcel size was selected after conversations with building industry representatives.

Map 3 - City and Population Adjacent Analysis

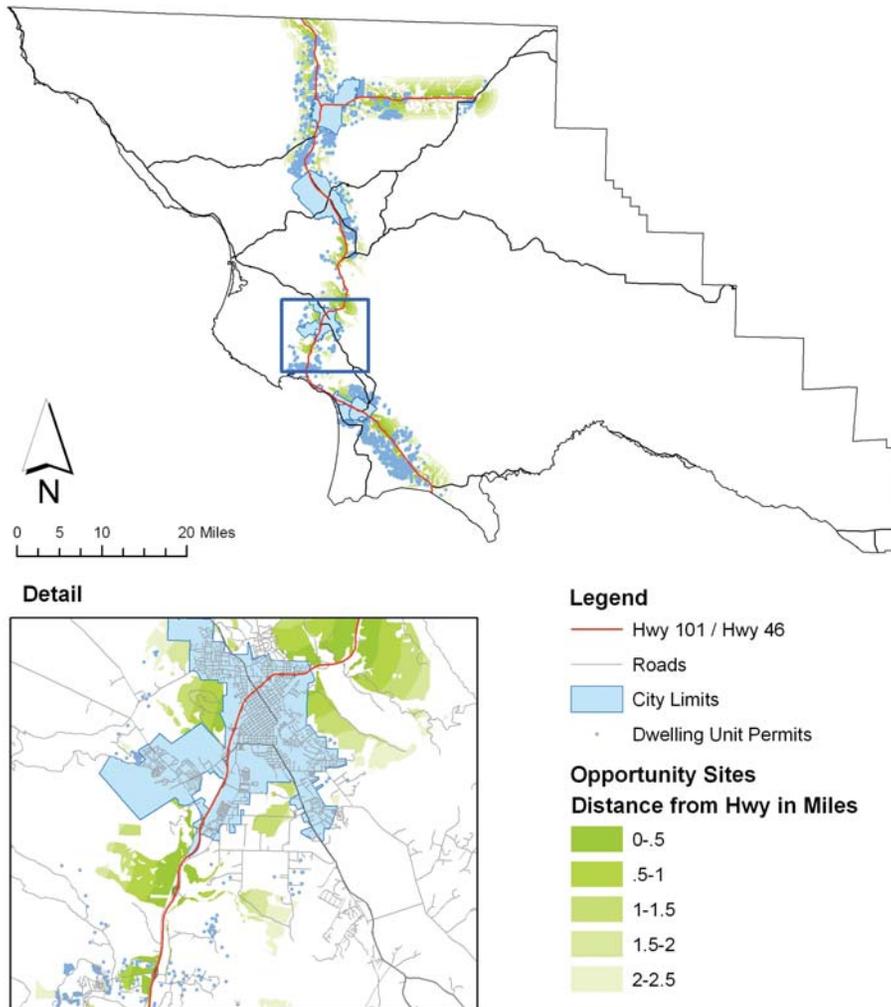


Figure 3.4 City and Population Adjacent Analysis

Map 3

The next step in the Model was to overlay the existing city limits, which includes all incorporated cities in the County, and areas with dwelling unit permits.

This overlay of incorporated city limit boundaries (blue polygons on Map 3), clearly identifies which sites identified thus far by the spatial analysis component are located within County jurisdiction. The dwelling permit data overlay (blue points on Map 3) visually represent where people live within the unincorporated County.

Next, a visual analysis was conducted using aerial photography to analyze all opportunity sites (green polygons on Map 3) adjacent to areas that already have a significant population or border city limits.

Occasionally, these sites, when reviewed using aerial photography were determined to be not suited for strategic growth; most commonly these were golf courses or public facilities. A site adjacent to city limits or with existing dwelling unit permits that withstood the visual aerial analysis were then designated as Strategic Growth Sites and subjected to the scoring component of the Model.

A key principle and first priority of strategic growth is developing and redeveloping land within existing city limits. As this model is designed for use by the County, land within the limits of incorporated cities is not addressed.

A key principle and first priority of strategic growth is developing and redeveloping land within existing city limits.

Map 4 - Strategic Growth Locations and Scores

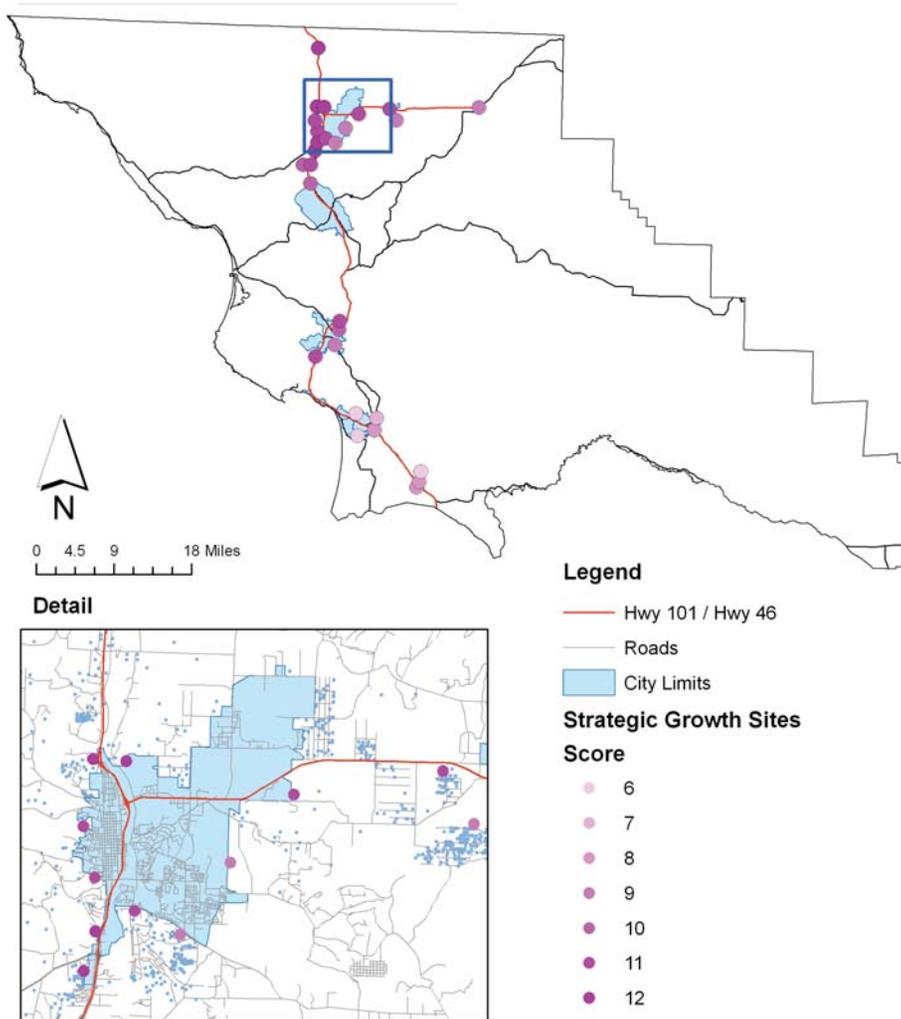


Figure 3.5 Strategic Growth Locations and Scores

Map 4

Map 4 identifies 28 strategic growth sites that have been selected and scored according to 9 sub-region level strategic growth parameters, and one site specific parameter. The final scores ranged from 6-12 and are displayed in figure 3.6 Strategic Growth Site Scoring Matrix.

Parameter 1 – Transects

Inspired by the Transect Model of planning popularized by the New Urbanist movement, points were awarded to sites based on their distance from Highway 101 or Highway 46. To accomplish this, transects in increments of 0.5 miles were created within the transportation corridor (<2.5 miles from Highway 101 or Highway 46). Points were awarded as show in Table No. 3.6

Parameter 2 – Water Supply

Sites within sub-regions identified as water supply severity Category III in the San Luis Obispo County ARS Report were awarded 0 points unless they have secured additional future water sources. All other sites were awarded 1 point.

Parameter 3 – Air Quality

Sites within sub-regions identified as air quality severity Category III in the San Luis Obispo County ARS Report were awarded -1 points. All other sites were awarded 0 points.

Parameter 4 – Train Station

Sites within sub-regions that have a functioning Amtrak station were awarded 1 point; all other sites were awarded 0 points.

Parameter 5 – Jobs/Housing

Using a jobs housing balance that analyzed ESRI tapestry reports, sub-regions with a jobs-housing balance of 0.0 – 0.1 0 point were awarded 0 points, 0.11 – 0.25 were awarded 1 point, 0.26 – 0.4 were awarded 2 points, 0.41 and up were awarded 3 points.

Parameter 6 – Alternative Energy

Alternative energy technology should not only be looked at as a source of energy but as an economic opportunity. The County has resources for all three of the major alternative energy sources, including solar, wind, geothermal, and Tidal. While Geothermal and Solar resources are scattered evenly across the county, wind resources are less even.

The California Energy Commission (CEC) has mapped wind resources using the 1-8 NREL scale of Power Density at 50 meters above the surface. Within the County the greatest resources are within the coastal zone and along

Transect Parameter	
Distance from Highway	Points awarded
0-0.5 Miles	5
0.5-1 Miles	4
1-1.5 Miles	3
1.5-2 Miles	2
2-2.5 Miles	1

Figure 3.6 Transect Parameter

Strategic Growth Site Scoring Matrix

Site ID	Sub Region	Parameters										Score
		1	2	3	4	5	6	7	8	9	10	
1	Nipomo	4	1	-1	0	0	0	1	1	0	0	6
2	Nipomo	5	1	-1	0	0	0	1	1	0	0	7
3	Nipomo	4	1	-1	0	0	0	1	1	0	0	6
4	Grover/Pismo/AG	4	0	0	1	2	0	0	0	0	0	7
5	Grover/Pismo/AG	3	0	0	1	2	0	0	0	0	0	6
6	Grover/Pismo/AG	3	0	0	1	2	0	0	0	0	0	6
7	Grover/Pismo/AG	4	0	0	1	2	0	0	0	0	0	7
8	San Luis Obispo	5	1	0	1	3	1	0	0	0	0	11
9	San Luis Obispo	4	1	0	1	3	1	0	0	0	0	10
10	San Luis Obispo	2	1	0	1	3	1	0	0	0	0	8
11	San Luis Obispo	4	1	0	1	3	1	0	0	0	0	10
12	Atascadero	5	1	-1	0	2	1	0	1	0	1	10
13	Templeton	4	1	-1	0	3	1	0	1	0	1	10
14	Templeton	4	1	-1	0	3	1	0	1	0	1	10
15	Paso Robles	5	1	-1	1	3	1	1	1	-1	1	12
16	Paso Robles	4	1	-1	1	3	1	1	1	-1	1	11
17	Paso Robles	5	1	-1	1	3	1	1	1	-1	1	12
18	Paso Robles	4	1	-1	1	3	1	1	1	-1	1	11
19	Paso Robles	2	1	-1	1	3	1	1	1	-1	1	9
20	Paso Robles	2	1	-1	1	3	1	1	1	-1	1	9
21	Paso Robles	4	1	-1	1	3	1	1	1	-1	1	11
22	Paso Robles	5	1	-1	1	3	1	1	1	-1	1	12
23	Paso Robles	5	1	-1	1	3	1	1	1	-1	1	12
24	Paso Robles	4	1	-1	1	3	1	1	1	-1	1	11
25	San Miguel	5	1	0	0	1	1	2	2	-1	1	12
26	E Paso Robles	5	1	-1	0	3	0	0	2	-1	1	10
27	E Paso Robles	4	1	-1	0	3	0	0	2	-1	1	9
28	Shandon	5	1	0	0	1	0	0	2	-1	1	9

Figure 3.7 Strategic Growth Site Scoring Matrix

the mountain ridge tops. Sites within 10 miles of areas designated NREL class 4 or higher will receive 1 point. Additionally endangered species concerns will need to be addressed as wind power infrastructure is developed in California.

Parameter 7 – Border Influences

The Army National Guard operates large facilities near the North part of the County. Due to a mission change and implementation of the nationwide Defense Base Closure and Realignment Commission's policies, the facilities have been expanding and are projected to significantly expand in the near future.

The rapidly growing city of Santa Maria is adding additional development pressure in extreme southern San Luis Obispo County. Sites within a 10-mile radius of the intersection of Highway 101 and the San Luis Obispo/Monterey County and San Luis Obispo/Santa Barbara County line are awarded 2 points. Sites within a 20-mile radius are awarded 1 point. All other sites are awarded 0 points.

Parameter 8 – Land Value

Land values in San Luis Obispo County vary dramatically by sub-region. Areas of high land value will require additional and sophisticated financing mechanisms to implement Strategic Growth.

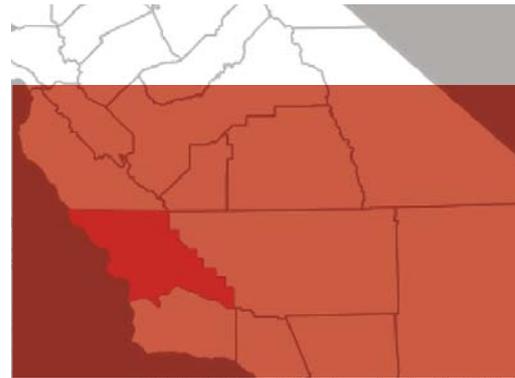
The two regions with the highest median home value were awarded 0 points. The two regions with the lowest median home value were awarded 2 points and all other regions received 1 point.

Parameter 9 – Endangered Species

Many endangered species can be found in San Luis Obispo County. The two species of greatest concern for development interests in the transportation corridor are the Ferry Shrimp and the San Joaquin Kit Fox. Sites within sub-regions affected by these listed species were awarded -1 point, all other sites were awarded 0 points.

Parameter 10 – Traffic Congestion

Using SLOCOG traffic projection models zero points were awarded to sites within regions that are projected to have severe traffic congestion by 2025. 1 point was awarded to all other sites.



4

NEIGHBORHOODS COUNTY CENTER EXISTING ISSUE
SYSTEM USE INDICATES TOGETHER ALSO FOR
RIGHT-OF-WAY IMPLEMENTING COMPLICATED REPORTS DAY RESEARCH REQUIREME
PRINCIPALS ALTERNATIVE TRIP CONCEPT
BUSES REDUCE MUCH ENCOURAGING LAND SERVICE
UTURE ALTERNATIVES ADDITION SUPPORT DRIVE
DENSITY TRADITIONAL ACCESS LOCAL PHYSICAL RAIL BETTE
SUPPORTIVE REGIONAL COMPACT UNITS VMT MAY COMMUNITY
MILE DESIGN

DESIGN TEMPLATE

Land Use-Transportation Connection & Design

The interaction between land use patterns and transportation is a core element of physical development. The design concepts in this chapter express this relationship. The designs present choices for a dense, more compact development.

The designs also promote alternatives to traditional land use practices that reduce the cycle of auto dependency by connecting compact development to transit options. The reasoning behind providing this design link is because land use has an influence on an individual's decision to take public transit, walk, ride a bicycle or drive.

Designing new spaces and providing new choices for individuals that are based in strategic growth principals can reduce average Vehicle Miles Traveled (VMT). By encouraging mixed use designs individuals will not have to drive as much because services and work are more likely to be within walking distance.

A summary of existing research by the Victoria Transportation Policy Institute on this issue has shown the following results from implementing designs with strategic growth principals:

- A 10% increase in residential density reduces VMT by 2-3%.
- Mixed use neighborhoods (supportive of alternative transportation modes) vs. traditionally zoned neighborhoods have 5-15% lower VMT.
- Those living in more central neighborhoods drive 10-30% fewer miles than those on the fringes.

The results from this study imply that density has a circular relationship to supporting transit service. Higher densities and activity nodes give people better access to transit. This makes it possible to provide better service levels which in turn may

attract even more riders. It becomes clear then that it is important to address not only the start of trips but also their destination.

Where are people really going and how far are they traveling? If alternative forms of transportation are to be viable, both ends of a trip (a bus stop or transit center) should be within a short walk for individuals.

With consideration of these factors and the goal to reduce VMT our three design concepts (Downtown Development and Transit Center, Corridor Infill Development, and Community Expansion Development) incorporate design elements which support more choice in transportation by making transit alternatives more viable, competitive and comfortable.

The designs focus on using a transit system built off of a network of buses in a radial system. Although buses are often less popular they do have an advantage of lower capital costs and infrastructure that is flexible and which may be added to incrementally.

The issue of whether the existing rail right-of-way in the County could be utilized for the implementation of local rail as the backbone of a future transit system was a consideration at the beginning of this project.

At this time, SLOCOG (SLOCOG staff report, 2006) and other research indicates that the County does not have the population density to support local rail service.

In addition, the existing corridor is complicated by the Cuesta Grade which necessitates a circuitous route for trains and a Federal Railroad Administration restriction on low cost DMUs

(Diesel Multiple Unit) vehicles mixing with heavier trains. For these reasons, local rail service in the County is highly unlikely in the foreseeable future.

Due to this constraint, one of the principal guides for the designs included transit supportive densities that could support network of buses in a radial system. The general density guidelines indicate that for an "intermediate" level of local bus service (40 buses per day) a minimum density requirement is 7 units per acre. For superior bus service (express buses, 120 buses per day, 5 buses at peak hour) the requirement is generally thought to be up to 15 units per acre.

Further research from the Victoria Transportation Policy Institute indicates that it is difficult to provide communities with viable transit services to any group other than those that already depend on it. The Victoria Transportation Policy Institute Transportation also reports that demand management and parking management can significantly reduce automobile travel by 10-30%. A list of policies supportive of alternatives that have been successful in other location can be found in Appendix F.

Ultimately the classic model for predicting transportation choice indicates that an individual's decision is influenced by:

- Travel time
- Cost
- Comfort and convenience.

Future development must be approached comprehensively and consider these indicators that attract individuals to alternative transportation. The physical design elements alone cannot support smart growth principals. They need to be designed with alternative transportation elements in order to make a regional bus system successful.

CONCEPTS FOR THE FORM OF DEVELOPMENT IN 2025:

This Chapter describes and presents designs for physical form in 2025. The three alternative development concepts for 2025 are designed to maximize access by multi-modal transportation and include compact development.

These designs include a Downtown Development and Transit Center, Corridor Infill Development, and Community Expansion Development. All three of the design alternatives can be considered as both standalone designs or pieced together as a whole. (See Figure 4.1 and 4.2 for Land Use and Road Hierarchy descriptions.)

It is important to design the cities of tomorrow with comfortable, convenient and affordable transportation systems. Most individuals will continue to drive vehicles as long as they are more convenient to drive rather than adapting to taking the bus, riding their bikes, walking or carpooling.

Designing cities based on a transect concept and strategic growth principals that incorporates transit options has many benefits. First, the designs encourage alternative modes of travel and reduce auto dependency while simultaneously reducing VMT. Second, they provide environmental benefits.

Finally these designs also improve human health. In order for these design concepts to be fully supported and realized, efficient transportation corridors need to be promoted and developed with densities that will allow them to flourish.

All three are based on a transect concept and strategic growth principals in which the highest densities and uses can be found in the core of a design area and then the densities and uses decrease as they move away from the core.

Design Alternatives 1, 2 & 3: Land Use

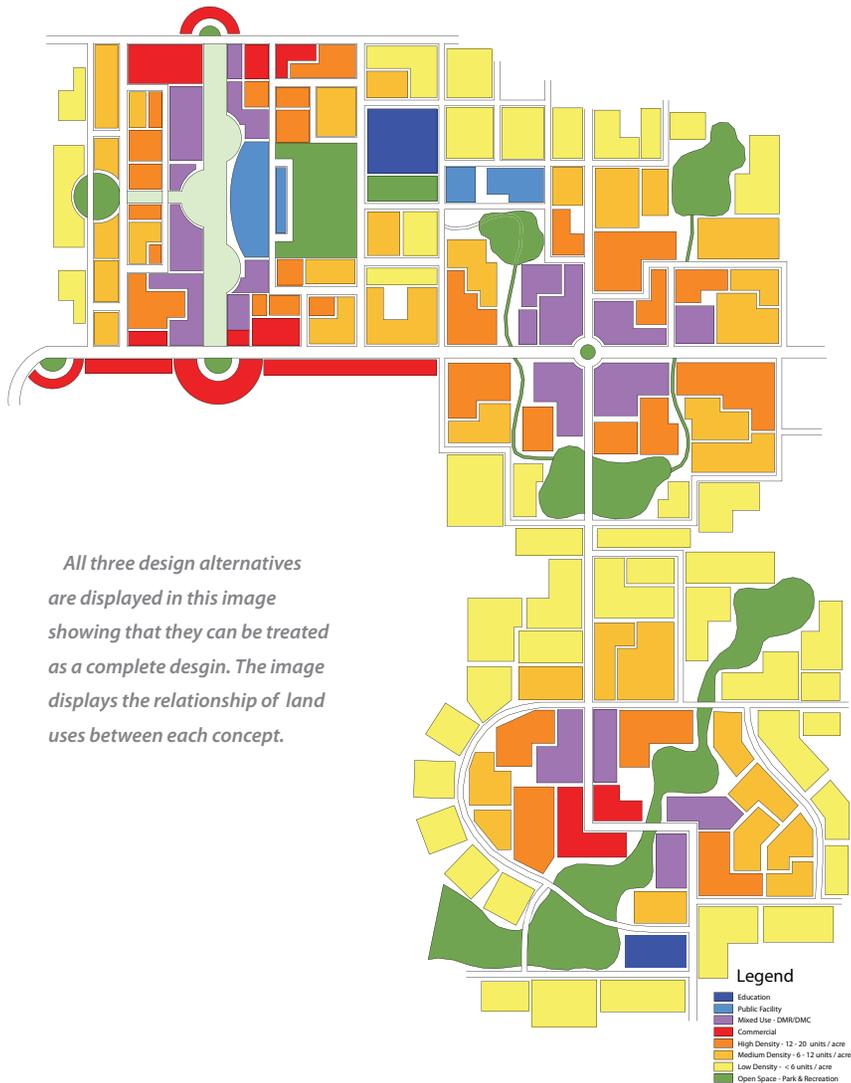


Figure 4.1 Design Alternatives 1, 2, 3: Land Use

The highest densities are found along main pedestrian and transit corridors with minimal emphasis on vehicular circulation and a majority of circulation focused on pedestrian and bicycle.

Medium density is found in the next transect with some vehicular circulation available and connections to other modes of transportation.

Low density can be found in the following transect with a balance between vehicular and alternative modes of transportation.

High Density is found near amenities and core areas and decreases in the outer transects that eventually lead to open space or conservation easements.

The three development designs have compact development reduce VMTs by decreasing vehicular access and increasing alternative modes of transportation. This includes the use of pedestrian ways, bicycle ways, bus routes, etc, that are linked both locally and regionally.

They also decrease VMTs by using clustered and compact development patterns, providing amenities within walking distance of residential and business areas and further reducing the need to travel out of the area for every need.

The road layouts also act discourage vehicle use. Roads have been placed in an inefficient pattern that makes driving less convenient than using the other modes of travel. Limited parking and vehicular infrastructure helps to reduce the number of vehicles that can be accommodated in the area and provides opportunities for development to be based on the other modes of transportation.

All three designs offer compact development options that provide several environmental benefits.

1. This type of design leaves more room for other uses and relieves pressure to develop agricultural land and open space. This preserves the local economy and local species habitats.

2. Permeability of surfaces increase due to a reduction in paved surfaces. The degradation of the water system is slowed down when fewer roads need to paved and when their widths are reduced. Less asphalt equals more permeability.

When there is an increase in permeable surfaces storm water can easily percolate back into the ground. This prevents flooding and renews the water supply. Also less pollution enters the water supply when stormwater runoff has the time and space to percolate into ground water.

3. Less energy, materials and waste will be consumed to expand infrastructure when designs are compact.

All three designs also improve community health. "Nearly 1.5 million California adults — 5.9 % of the population are obese or have diabetes." (Healthy Eating Active Communities, 2009). This is an alarmingly high rate. Before 1992, Type 2 diabetes accounted for 2-4% of all childhood diabetes cases. More recent numbers estimate that up to 45 % of all new childhood diabetes diagnoses is of Type 2 diabetes with 80 % of them being overweight.

In California, 24 % of adolescents, ages 12 to 17, are overweight or at risk of being overweight" (Healthy Eating Active Communities, 2009). Without intervention, these rates are only expected to increase with time. "As the percentage of children who are overweight rises, and as these children age, the health problems they face will burden California with growing costs for medical care and lost productivity.

Design Alternatives 1, 2 & 3: Road Hierarchy

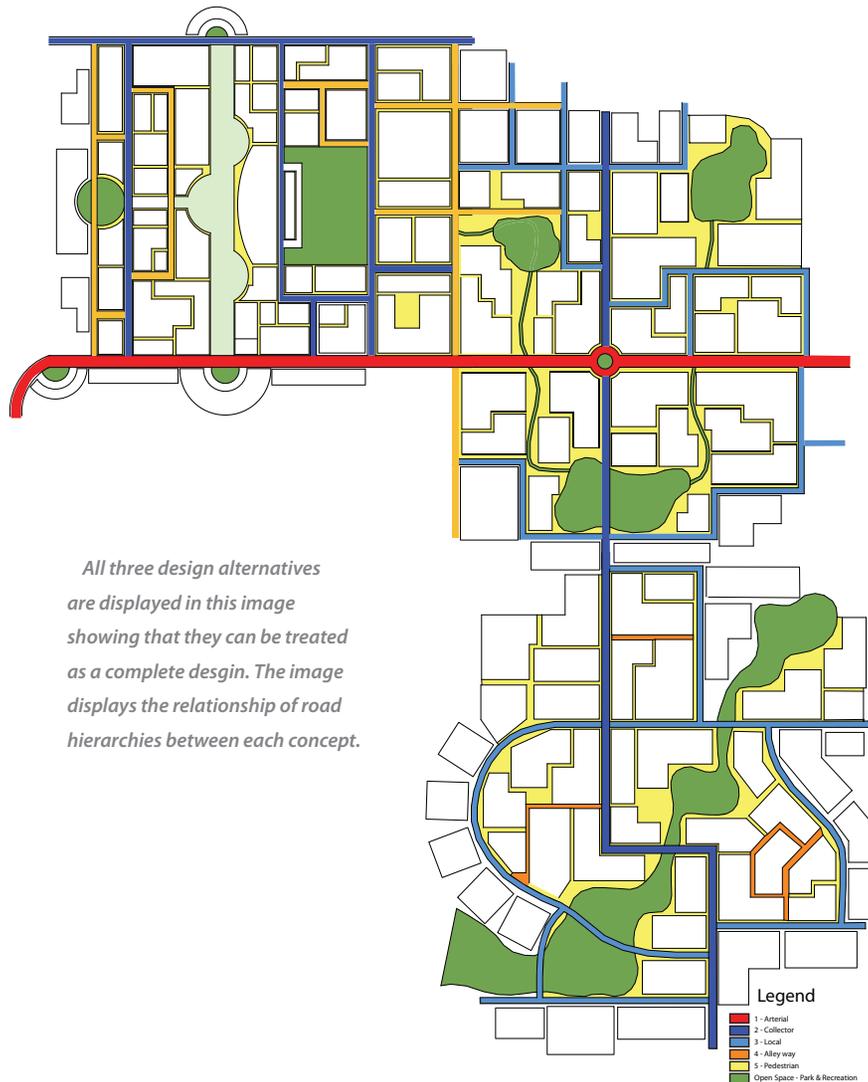


Figure 4.2 Design Alternatives 1, 2, 3: Road Hierarchy

In 2000, the estimated national costs attributable to obesity amounted to \$118 billion” (Healthy Eating Active Communities, 2009).

“The scientific literature suggests that the high prevalence of overweight and physical inactivity is caused by numerous individual, social and environmental factors” (Healthy Eating Active Communities, 2009).

The key example affecting planning and design is the lack of opportunity to engage in physical activity in schools and communities (adapted from Healthy Eating Active Communities, 2009).

Consequently, at the community design level, a major strategy to curb this alarming trend is the need to encourage physical activity among residents – particularly children.

More pedestrian and bicycle-friendly environments are needed to promote non-motorized means of transportation within these communities. This involves designing walk-able, bike-able communities so all residents have the opportunity to walk or bike to destinations in and around their community.

Higher density urban areas with clearly defined bike lanes and pedestrian sidewalks would promote pedestrian and bike activity in these areas. For more rural and low-density fringe areas, park-and-ride facilities with strong bicycle and pedestrian connections would allow residents from those areas to walk or bike a portion of their commute, and then take a bus to their final destination that is beyond a reasonable biking distance.

An increased amount of open space will support trail and park systems running throughout the designs increasing the community's ability to enjoy multiple modes of outdoor recreation helping to increase the health of the community.

Alternative Design Concept

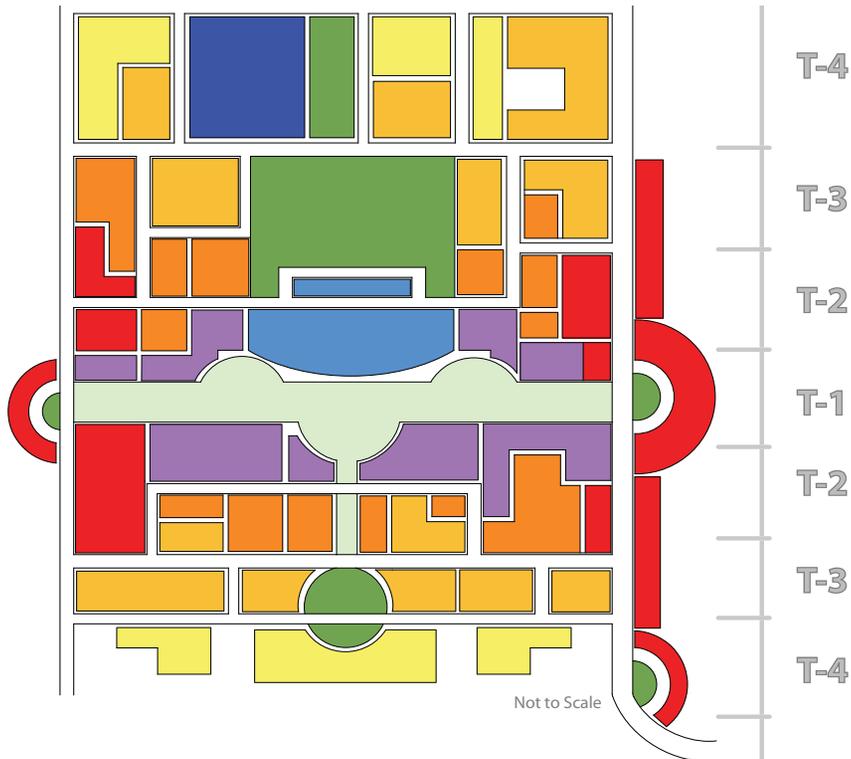
The three alternative design concepts proposed for 2025 focus around multi-modal transportation and compact development. They are described as follows:

Alternative 1
Downtown Development and Transit Center

Alternative 2
Corridor Infill Development

Alternative 3
Community Expansion Development

Downtown Development and Transit Center



Alternative 1 Downtown Development and Transit Center

The Downtown Development and Transit Center, alternative has been designed for an area with existing urban development, such as the city of San Luis Obispo, or for the intention of developing a new town.

The alternative development concept has been designed to increase walkability to reduce VMTs. It is based along a pedestrian and bicycle oriented corridor connected to a main transit center at one end and a secondary transit hub at the other.

The transit center links pedestrian, bicycle, vehicular, and bus transportation systems locally and regionally.

The main roads, arterial and collector, allow access to the transit center and regional highway while the secondary smaller roads, some collector and local streets, allow access to the secondary transit hub and other residential areas.

The local streets may accommodate some off-street parking; however, parking is limited and hidden with alleyway access where parking is available for residential units.

All amenities are located within walking and bicycle distance in this compact development design. Frequent bus stops and hubs are also located along the residential areas to provide easy access to resources and services.

Downtown Development and Transit Center is surrounded by relatively high-density development, with progressively lower density spreading outwards. Along the pedestrian and bicycle corridor, there is commercial development with some mixed use commercial and residential development.

In general the area will accommodate all necessary amenities from a civic center, education, residential, and other basic land uses.

The development in the core area includes mixed-use developments and provides a wide variety of amenities in a central location such as retail and commercial on the bottom floors and office and residential space on the second floor or possibly third floor.

ALT 1	TRANSECTS			
	T-1	T-2	T-3	T-4
HOUSING	Mixed Use - Downtown mixed commercial - Downtown mixed density High Density	Mixed - Downtown Mixed commercial High Density Medium Density	Medium Density	Medium Density Low Density
COMMERCIAL	Retail Restaurants Night Life Office Commercial food store Café Bookstore Bank	Convenient store Café Office Grocery Store Office supply store Gas Station	Gas Station Bike store	Convenient Store
Uses	Government Civic Center Library Post Office Police Station Museum Theater Art Gallery Farmer's Market	Childcare Dry cleaner Laundromat Fitness Center	Childcare Fire Station Auto Mechanic Police Station	Education
OPEN SPACE	Plaza Park	Park	Park	Children Playground
Transportation	Main Hub Bus Stops	Bus Stop	Bus Stop	Bus Stop

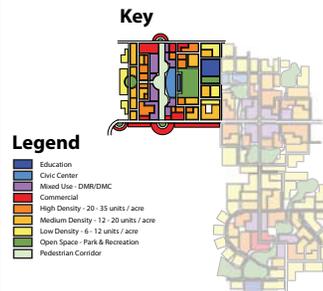
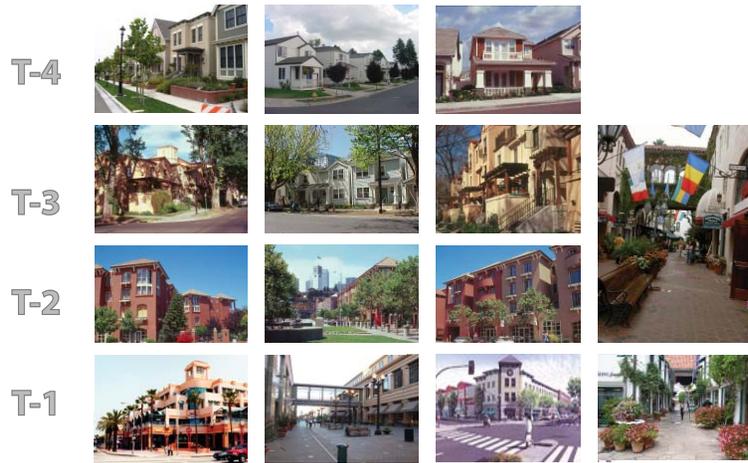


Figure 4.3 Downtown Development and Transit Center

Downtown Development and Transit Center



Secondary pedestrian and bicycle access ways provide connections from the central downtown core to other local areas that are pedestrian-friendly.

Secondary pedestrian and bicycle access ways are available every block to increase the connectivity between blocks and promote a healthier lifestyle in general.

Also, these access ways connect to a central open space area and smaller pocket parks from the downtown core and other local areas. These open space areas and smaller pocket parks help create a smoother transition between the different density types and land uses while also promoting a greater sense of community.

For the Downtown Development and Transit Center design, the residential density ranges from high, medium, and low. Residential High Density has a density of 20 to 35 dwelling units per acre.

Residential Medium Density has a density of 12 to 20 dwelling units per acre. Residential Low Density has a density of 6 to 12 dwelling units per acre.

The transect for the Downtown Development and Transit Center concept focuses on showing the basic amenities required for each density and land use areas.

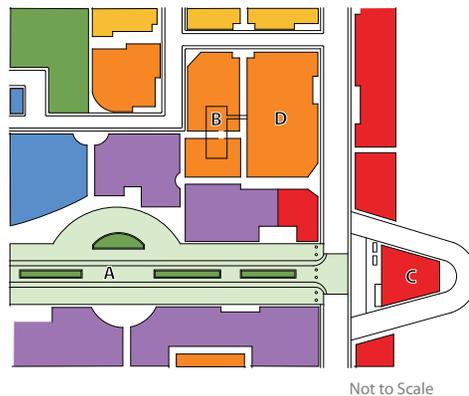
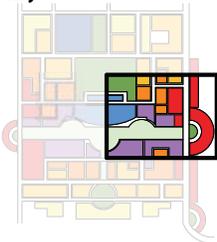
Designing new spaces and providing new choices for individuals that are based in strategic growth principals can reduce average Vehicle Miles Traveled (VMT). By encouraging mixed use designs individuals will not have to drive as much because services and work are more likely to be within walking distance.

Detail

Legend

- Education
- Civic Center
- Mixed Use - DMR/DMC
- Commercial
- High Density - 20 - 35 units / acre
- Medium Density - 12 - 20 units / acre
- Low Density - 6 - 12 units / acre
- Open Space - Park & Recreation
- Pedestrian Corridor

Key

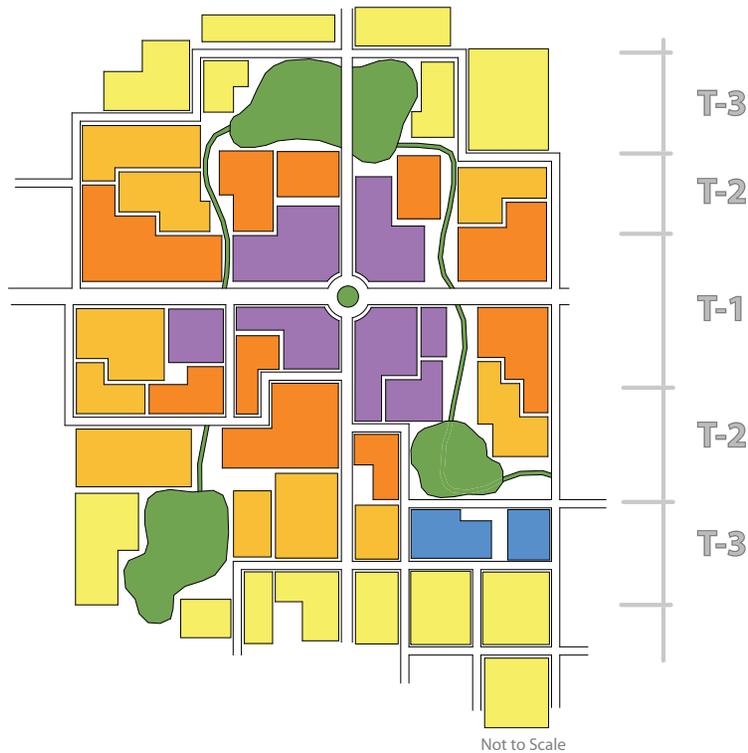


Not to Scale

- A** - Pedestrian Corridor with Planters, Bike lanes, Gathering spaces, Connection to other open space area and amenities
- B** - Second Floor Pedestrian Walkway
- C** - Transit Hub Configuration with Bike racks and storage, Drop Off Area, Bus Terminal, Plaza and Commercial area to provide food, newspaper stand, etc for travelers.
- D** - First floor parking option on inside of black with access through alley way

Figure 4.4 Downtown Development and Transit Center Detail

Corridor Infill Development



Alternative 2 - Corridor Infill Development

The Corridor Infill Development alternative has been designed for an existing area that is less urban, such as Templeton or for the urban fringe of a community such as the city of San Luis Obispo.

This concept is intended to work with the original configuration of a place while adding additional uses, transportation options and opportunities to make the area more compact and walkable.

The concept is based on an area that has been developed along one main roadway that serves as the major corridor. This major corridor will link to the arterial or the collector road that connects to downtown development.

The major corridor serves to provide all the basic amenities for the community with a transit stop to connect people locally and regionally. A transit stop is designed to be equidistant from either end of the main road to allow for equal access from all community members.

ALT 2	TRANSECTS		
	T-1	T-2	T-3
HOUSING	Mixed High Density Medium Density	High Density Medium Density	Medium Density Low Density
COMMERCIAL	Retail Restaurants Night Life Office Commercial food store Cafe Bookstore Bank Tech store Gas Station	Convenient store Cafe Office Grocery Store Restaurants Office Supply store	
Uses	Library Post Office Police Station Museum Theater Art Gallery	Childcare Dry cleaner Laundromat Fitness Center	Community Center Library Education Senior Center Childcare Auto Mechanic Police Station
OPEN SPACE	Plaza Park	Park	Park Children Playground
Transportation	Main Hub Vehicle Bike Pedestrian	Bus Stop Vehicle Bike Pedestrian	Bus Stop Bike Pedestrian

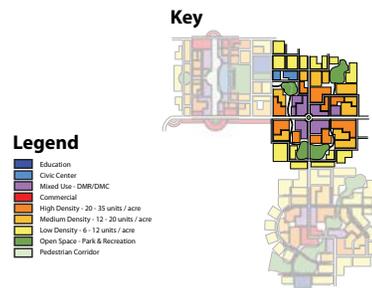
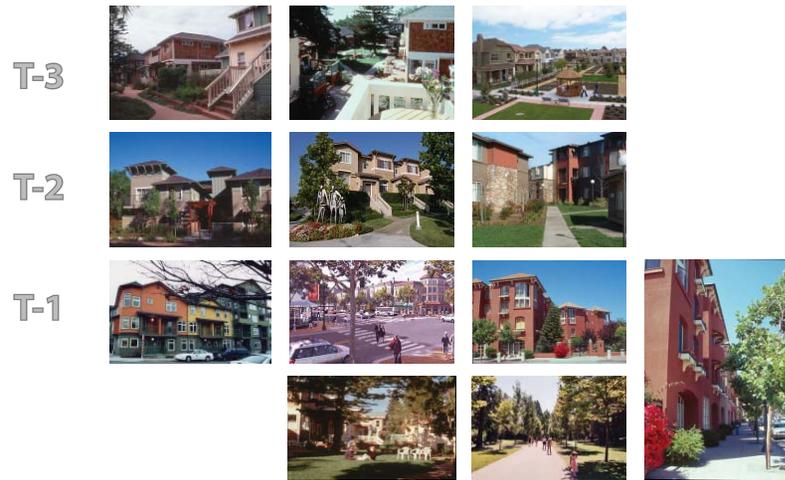


Figure 4.5 Corridor Infill Development

Corridor Infill Development



The transit hub will contain a small bus terminal, a “Kiss’n Ride,” and bike parking/storage. (See Figure 4.8) A Park and Ride Facility will also be available in the area. (See Figure 4.9)

Secondary roads will be used to provide access to the surrounding residential neighborhoods while pedestrian alleyways between residences and businesses will promote walking and bicycling throughout the area.

Corridor Infill Development concentrates density or infill in the major corridor, with progressively lower density spreading outward. There is high residential density around the mixed and commercial development, medium density and low density. The Residential High Density has 12 to 20 dwelling units per acre. Residential Medium Density is 6 to 12 dwelling units per acre. The Residential Low Density is up to 6 dwelling units per acre and is generally surrounded by parks, community center, and other community oriented activities.

Park and recreation areas serve to connect various densities and land uses, increasing social connectivity while pedestrian alleyways promote walking and bicycling to the major corridor. Open spaces are also linked through a trail system amongst the residential neighborhoods. The road layout and availability is designed to make walking or bicycling faster and more convenient than driving. Parking will also be limited to one car per household and contained in both communal and shared lots as well as on the first floor of some buildings.

Detail



Figure 4.6 Corridor Infill Development Detail

Community Expansion Development

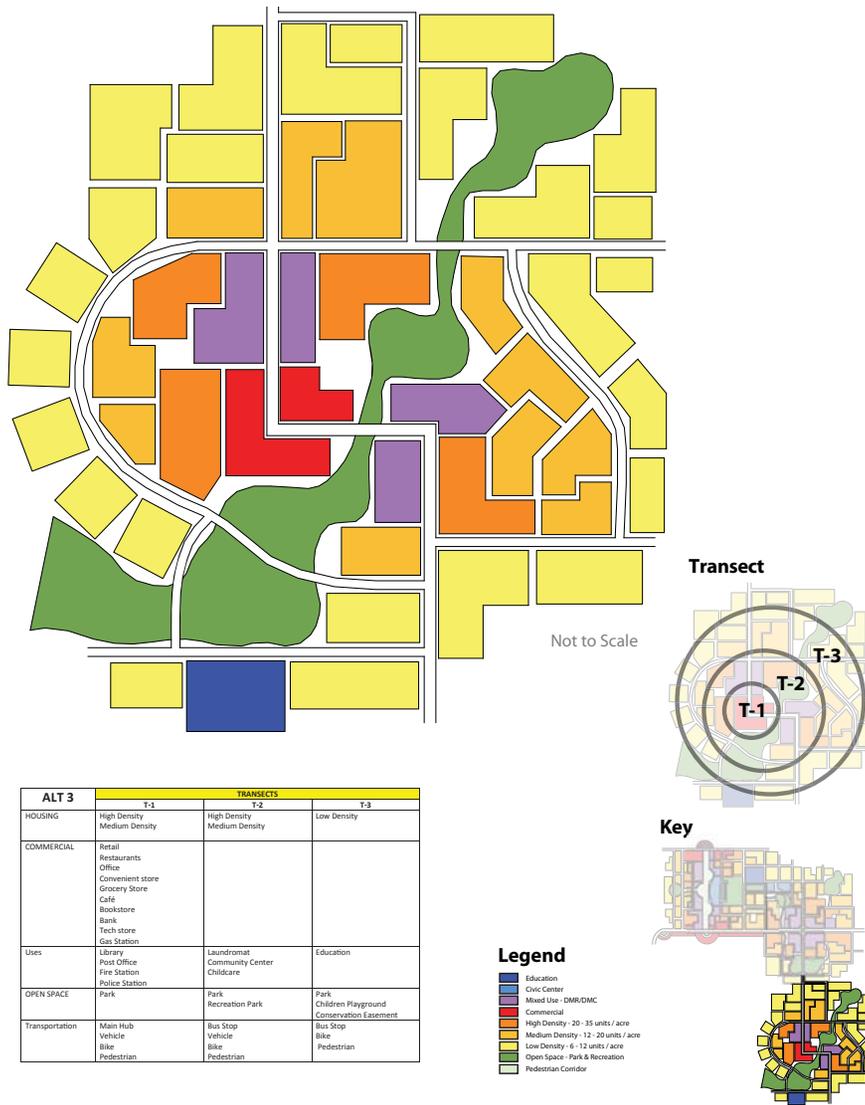


Figure 4.7 Community Expansion Development

Alternative 3 Community Expansion

The Community Expansion Development is intended to extend up to the edge of an existing developed area.

A transit stop is central to its design. The transit stop provides access to and from other areas through a Park and Ride Facility and other transit center. (See Figure 4.9).

The Community Expansion Development is intended to contain basic amenities and businesses to prevent people from having to always commute elsewhere and reduce VMTs. The land surrounding the Community Expansion Development is a conservation easement. This feature is designed to prevent sprawl.

Connected to the conservation easement and running through the development is a park and trail system that provides the community with a variety of open spaces and recreational opportunities. Smaller roads lead into low density areas and vehicular alleyways.

These alleyways provide some vehicular parking and access to clustered residential units. Parking will also be limited to one car per unit with additional parking being provided through a shared lot with the local Park and Ride Facility.

Community Expansion Development

T-1



T-2



T-3



The Park and Ride Facility is intended to provide commuters, from in and around the area, the ability to take alternative forms of transportation

Community Expansion Development has the most density in the central of the community.

Alternative 3 has densities ranging from high, medium, to low. Residential High Density is 12 to 20 dwelling units per acre.

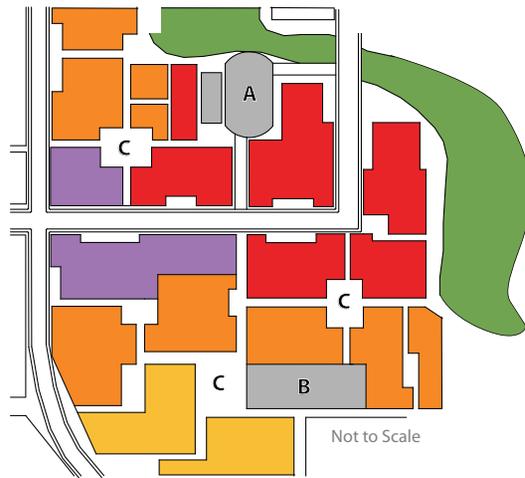
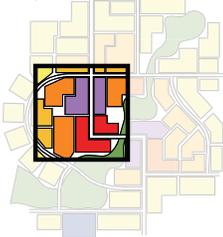
Residential Medium Density is 6 to 12 dwelling units per acre. Residential Low Density is up to 6 dwelling units per acre. Amenities such as community parks and community centers will create a stronger sense of community and promote cohesion by connecting various community related activities.

Detail

Legend

- Education
- Civic Center
- Mixed Use - DMR/DMC
- Commercial
- High Density - 12 - 20 units / acre
- Medium Density - 6 - 12 units / acre
- Low Density - ≤ 6 units / acre
- Open Space - Park & Recreation
- Pedestrian Corridor
- Parking

Key



- A** - Park and Ride area which contains shared parking between surrounding uses as well as some commercial uses
- B** - Shared parking area for surrounding residential uses
- C** - Internal common space/plaza area

Figure 4.8 Community Expansion Development Detail

The focus for this design alternative is to bring individuals of a community to its center by promoting greater activities within the central area.

Proposed Transit System

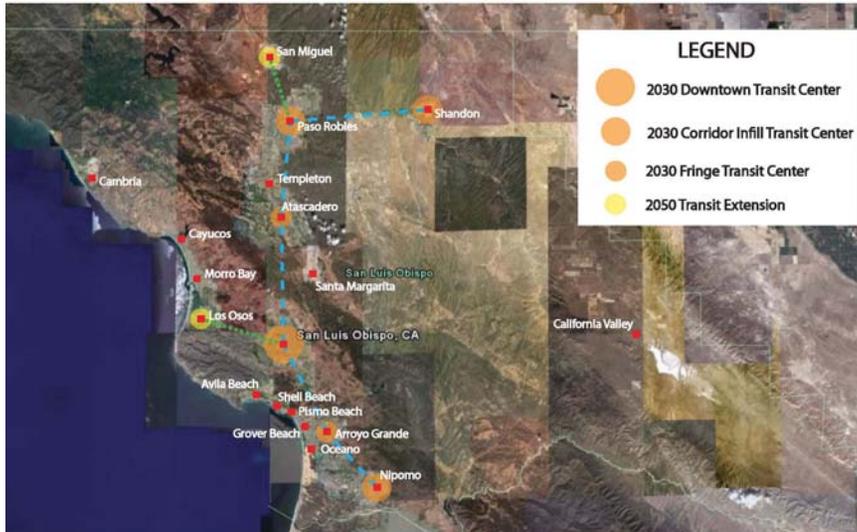


Figure 4.9 Proposed Transit System

Transit Stations

Three different bus station designs have been proposed to complement Alternative 1, 2 and 3.

Alternative 1 Downtown Development and Transit Center

The first transit station design relates to the context of a downtown urban environment and is intended to serve as the main downtown “hub” for the County’s transportation network. It should be located in the County’s job center, and most of the bus routes will radiate out from this station and follow along the spine of Highway 101.

Alternative 2 Corridor Infill Development

The transit station design second design is reduced in scale from the “hub” design and acts as the epicenter of a “pulse point” in a rural community of medium density.

Alternative 3 Community Expansion

The third transit station design “plugs in” to a typical Park and Ride Facility and is intended to correlate with community expansion and fringe developments in the County.

Downtown Transit Center

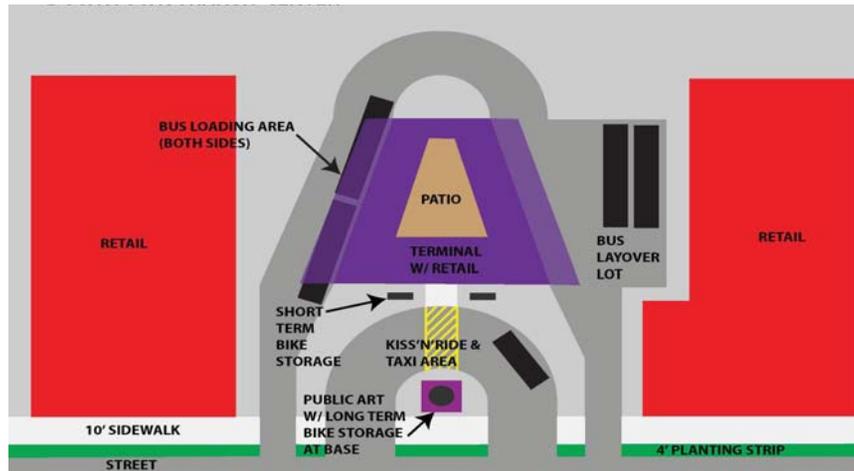


Figure 4.10 Downtown Transit Center

Legend

Education
Civic Center
Mixed Use - DMR/DMC
Commercial
High Density - 20 - 35 units / acre
Medium Density - 12 - 20 units / acre
Low Density - 6 - 12 units / acre
Open Space - Park & Recreation
Pedestrian Corridor

The long term storage consists of bike lockers that double as the base of a public art sculpture.

Alternative 1 Downtown Transit Center

This design is intended for use as the “hub” of the transportation network and should be located in an urban downtown environment and job center in order to maximize ridership.

This design includes an approximately 3,000 sq. ft. trapezoid-shaped terminal with an enclosed outdoor patio.

The area of the terminal closest to the street contains two retail spaces that can be leased out as coffee shops, delis, newsstands, bike rental businesses, or other types of businesses that provide goods and services to daily commuters.

The remaining portion of the terminal is a fully enclosed, climate-controlled waiting area with seating, real-time electronic ride information billboards, free wireless internet access, ticket counters, a change machine, bathrooms with showers, a security guard kiosk, and bi-monthly rotating art displays.

The bus loading area consists of four covered bus parking spaces oriented around a U-shaped loop. The main function of this U-shaped loop design and the trapezoid building shape is that it allows transit riders to transfer from one bus to another without ever having to cross a street, and this improves pedestrian safety.

There is also a much smaller U-shaped loop nestled within the bigger loop at the front entrance to the bus terminal. This second loop is used as a “Kiss’n’Ride” and a taxi drop off.

In addition, both short and long term bicycle parking/storage are provided on-site. The short term bike racks are located on either side of the building’s front entrance, and the long term storage consists of bike lockers that double as the base of a public art sculpture located in the center island of the “Kiss’n’Ride” loop.

Furthermore, the terminal also contains a layover lot for up to three buses. Finally, due to the fact that the vast majority of transit riders will arrive at the station from smaller Transit Centers or Park and Ride Facilities, and in the interest of reducing traffic congestion in the job center, parking is not provided at the Downtown Transit Center.

Infill Corridor Transit Center

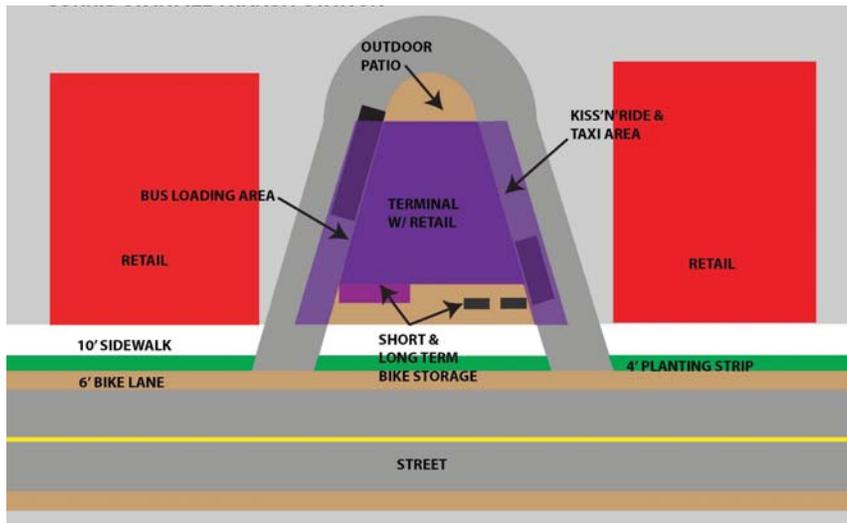


Figure 4.11 Infill Corridor Transit Center

Legend

Blue	Education
Light Blue	Civic Center
Light Purple	Mixed Use - DMU/DMC
Red	Commercial
Orange	High Density - 20 - 35 units / acre
Yellow	Medium Density - 12 - 20 units / acre
Light Green	Low Density - 6 - 12 units / acre
Green	Open Space - Park & Recreation
Light Green	Pedestrian Corridor

This design includes an approximately 2,000 sq. ft. trapezoid-shaped bus station with an outdoor patio.

Alternative 2 Infill Corridor Transit Center

This design is intended to act as the epicenter for a “pulse point” of activity in rural community of medium density. This design includes an approximately 2,000 sq. ft. trapezoid-shaped bus station with an outdoor patio. The area of the station closest to the street contains one retail business that provides goods and services to daily commuters.

The remaining portion of the station is a fully enclosed, climate-controlled waiting area with seating, real-time electronic ride information billboards, free wireless internet access, ticket counters, a change machine, bathrooms with showers, and a security guard kiosk.

The bus loading area consists of covered bus parking for two buses at a time. There is also a designated “Kiss’n’Ride” and taxi drop-off area. In addition, both short and long term bicycle storage are provided on-site. The short term bike racks are located on either side of the building’s front entrance, and the long term bike lockers are located on the side of the building in a well-lit and secure area.

Alternative 3: Community Expansion Transit Center

This design “plugs in” to a typical Park and Ride Facility (See Figure 4.9) and is intended to correlate with fringe developments in the County.

This design includes an approximately 2,300 sq. ft. rectangular bus station located at the center of a Park and Ride Facility. Within the station, there is room for one small coffee shop. The rest of the station is a fully enclosed, climate-controlled waiting area with seating, real-time electronic ride information billboards, free wireless internet access, ticket counters, a change machine, bathrooms, and a security guard kiosk.

There is also a designated “Kiss’n’Ride” and taxi drop-off area. In addition, both short and long term bicycle storage are provided on-site. The short term bike racks are located on either side of the building’s front entrance, and the long term bike lockers are located on the side of the building in a well-lit and secure area.

Park and Ride Conceptual Design

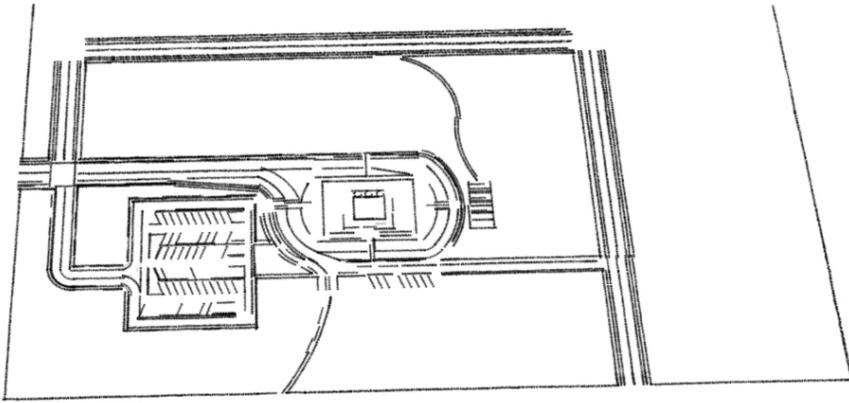


Figure 4.12 Park and Ride Conceptual Design

Park and Ride Roadway Design

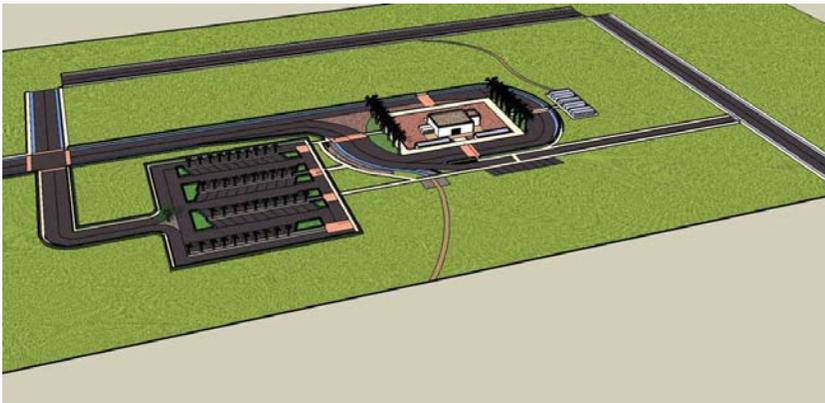


Figure 4.13 Park and Ride Roadway Design

Park and Ride Facilities

Park and Ride Facilities have existed in the United States since the early 1970s (Spillar, 1997, p. 9). Public Park and Ride Facilities are formal or informal transportation stations that allow vehicle commuters or travelers to park their single-occupancy vehicles and transfer to high-occupancy vehicles such as buses, light rail systems, or commuter rail systems for the remainder of their journey. See Figure 4.10.

Park and Ride Facilities also support other alternative modes of transportation including bicycle, pedestrian, vanpool, and airport transit. Personal vehicles are safely stored at the Park and Ride Facility for the entire day and retrieved in the evening when the commuter or traveler returns. Some of them provide long-term parking options for overnight travelers. Park-and-Ride Facilities may also be designed to integrate commercial uses and housing (Spillar, 1997, p. 91).

Park and Ride Facilities benefit commuters who are interested in using public transit but do not have public transit options close to their homes. It creates a way for commuters to lower their VMTs and become less dependent on personal vehicles as a primary mode of travel. It keeps vehicles on the fringe of urban areas, intended to be traversed primarily by foot or bicycle, while still providing commuters, and others, a means of connecting locally and regionally through the use of alternative modes of transit.

Park and Ride Facilities should be located in locations that maximize service area population, assuring strong patronage demand (Spillar, 1997, p. 33). Often, they are located visibly adjacent to regional transportation corridors or in close proximity to existing residential areas. Additionally, they are often located in close proximity to public transportation systems such as a railroad station or along an existing or future bus route (Spillar, 1997, p. 35).

Location

The Park and Ride Facility will be located in both the Community Infill Development and Community Expansion Development concepts where they will be on the fringe of an existing community and within biking or driving distance from existing and planned housing. They will also be located along and tied into one or more bus routes that lead to places of work within a city or the County.

Some parts of the County currently have a small population and are too low in density (namely rural areas, but also fringe areas of urban centers) for direct bus service. Consequently, residents in these rural communities can only travel by car to other places in the county, while residents living in the low-density fringe areas of urban centers area are also dependent on the automobile for access to other parts of that community and other areas in the County.

In addition, visitors of the County are also adding to an increase in the demand for parking in communities' downtowns. Cities such as San Luis Obispo and Pismo Beach, however, are trying to encourage the number of visitors to their communities as a means of furthering their economic development. This presents a conflict of interest to such communities, but is something that can be resolved by a Park and Ride Facility located on the fringe of such communities.

Therefore, Park and Ride Facilities could be proposed for the following situations:

For rural communities, residents living within a 3.5 mile radius from its core (a recommended biking distance by Spillar, 1997, p. 117) can use the Park and Ride Facilities as a central hub for access to the rest of the region via bus. Ideal locations are communities where a bus service route does not currently run.



Figure 4.14 Parking Lot Design

Parking Lot Design

In this situation the Park and Ride Facility encourages residents to access other communities in the County via transit which reduces VMTs.

Residents living in low-density fringe areas of urban centers, and visitors to the county wishing to access these centers, could utilize Park and Ride Facilities on the fringe of existing cities (such as San Luis Obispo). Where visitors are a priority, more automobile parking should be integrated, in addition to prioritizing close-proximity to the freeway.

For a location prioritizing local residents living in low-density fringes of urban centers, more bike parking (as opposed to automobile parking) should be provided – as non-motorized means of transport will be encouraged to access these locations. From these Park and Ride Facilities, residents and visitors will be able to ride a bus into the center of those cities (allowing tourism to prosper without parking issues arising in the downtowns of these cities).

Park and Ride Facilities locations enable users to ride a bus to a higher density area or community, where a more comprehensive bus service will run. This integration of the bus services within urban centers and Park and Ride Facilities on the fringe of communities and rural locations, provide the County with an effective regional transit system.

In rural community locations, Park and Ride Facilities could potentially serve as a major node, around which future development may grow. However, the fringe facility would be more limited in its capacity to grow, although both facilities are expected to serve as mini-commercial hubs to encourage usage. Also, the emphasis on bike access to both facilities will discourage unnecessary automobile trips, and promote healthy lifestyles (especially in children under the age of 16 who have currently have limited access to other areas of their community or the County).

Parking Lot Design

The Park and Ride Facility will contain surface parking lots that can be accessed from a roadway, bike paths, and pedestrian sidewalks. Pedestrians may enter and exit parking lots via walking path networks. “Kiss’n’Drop” patrons will also be accommodated via a “Kiss’n’Drop” loop located adjacent to the central bus loop and commercial hub, see Figure 4.11.

Parking Requirements

Primarily, the Park and Ride Facility is designed to accommodate a large number of bikes and encourage non-motorized modes of access to reach it. This reduces VMTs and promotes healthy lifestyles. Nevertheless, space has been allocated for automobile parking. While exact parking numbers are site-specific, and calculated by logit models, estimates (adapted from Spillar, 1997, p. 80) indicate that such a facility should aim to accommodate anywhere between 60-80 cars. Some parking spots will be reserved for short-term parking, handicapped travelers, overnight travelers, compact cars, smart cars, and vanpools. The parking lot will be centrally-located, with pedestrian-friendly access to the bus loop and commercial hub. Access to the lot will be from a two-way, single lane road that terminates at the parking lot. Parking spaces will be angled, and accessed in a one-way loop system (as used by most grocery stores’ parking lots).

Land Uses within Park and Ride

Facilities Commercial uses will be located in the center of the Park and Ride Facility so that patrons will not have to make a stop to pick up a cup of coffee or a newspaper.

The commercial hub will retain a buffer area around the main building, to initially be occupied by street vendors, with the possibility of this area being developed as permanent commercial space in the future that can further strengthen the commercial hub.



Figure 4.15 Commercial Hub

Commercial Hub



Figure 4.16 Bicycle Parking

Bicycle Parking



Figure 4.17 Bicycle Storage Lockers

Bicycle Storage Lockers

Preliminary commercial uses that may be located in the center of the facility include:

- coffee shop
- deli
- café
- newspaper and magazine stand
- convenience store

The Park and Ride Facility is designed to be integrated into an existing community where other commercial uses are already located. Some compatible uses include:

- grocery store
- gas station
- copy shop
- neighborhood commercial



Figure 4.18 Bicycle Lanes

Bicycle Lanes

Bicycle Parking

Since the Park and Ride Facility is designed to be located on the fringe of an existing community within biking distance of housing, it will be able to accommodate a large number of bikes. Ample bicycle parking also encourages patrons to use a bike when accessing the facility (Spillar, 1997, p. 118). Bicycle parking and storage (including lockers) will be located in the center, surrounding the bus loop and close to the commercial hub (See Figure 4.14).

Bicycles will be able to access the facility via bike entrances from existing roadways. Cyclists will ride on colored, bike-only pathways that follow the road access into the facility, along with two additional bike-only trails that weave through the surrounding open space and into bike parking/storage lots on either side of the bus loop. (See Figure 4.15)

Where bikes enter the bus loop, there will be an underpass for bike-only access where automobile access to the "Kiss'n'Ride" area cuts across the bike lane. Cyclists will be able to utilize a bike rack or rent a bike storage locker.

Pedestrian Pathways

Pedestrians accessing the bus loop by foot from the auto-only parking lot will be able to safely walk through the parking lot via raised, colored, islands between parking rows that connect to the peripheral sidewalks at speed-hump crosswalks, and (where appropriate) raised 'no-entry' islands. See Figure 4.17 Raised islands and crosswalks allowing pedestrians to walk in front of cars and aid traffic calming (Spillar, 1997, p. 104) and make a more pedestrian-friendly environment. The peripheral sidewalks provide pedestrians with access to and from the parking lot. Where the pathways are raised, graded ramps are to be provided for wheelchair access and ADA-compliance.

Passenger Waiting Areas

Covered bus loading areas will be located around the commercial center of the facility within comfortable walking distance of bike and automobile parking. Adjacent to the loading areas, the climate-controlled bus station will include a ticket counter, bathrooms, and a waiting area with seats for patrons wishing to catch the bus, and will be fitted with electronic real-time arrival billboards. A complete and user-friendly schedule will also be posted in multiple locations.

The Park and Ride Facility should follow these guidelines to ensure patron safety and defensible space.

1. Provide a direct and unobstructed view of major destination points.
2. Minimize the expanse of the lot, so that the entire lot can be seen from the transit interface location.
3. Adequate illumination should be provided.
4. Encourage a police presence within and around the facility via frequent drive-through; surveillance

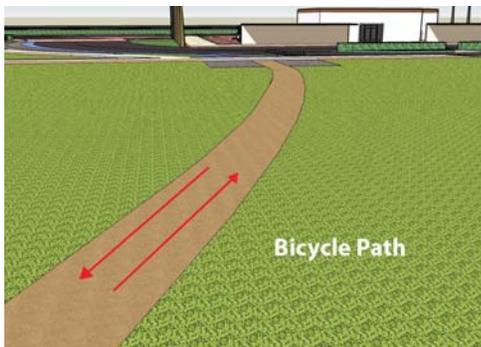


Figure 4.19 Bicycle Paths

Bicycle Paths



Figure 4.20 Pedestrian pthways

Pedestrian Pathways



Figure 4.21 Bicycle Paths

“Kiss’n’Ride”

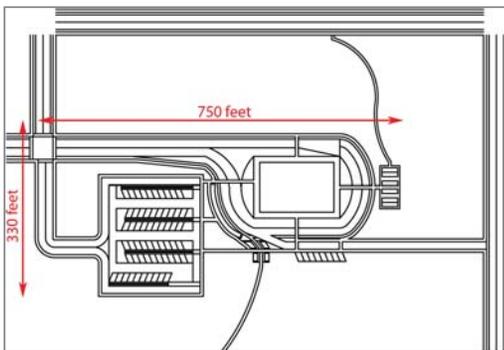


Figure 4.22 Bicycle Paths

Scale & Walking Distances

cameras; security guard(s); space for mobile vendors to create on-site activity; and for the large facility, a police substation.

5. 24 hour service of activities and buses are also recommended

Roadway Design

Access to the bus loop will be via a single lane, two-way road that becomes a twin lane, one-way loop around the commercial center, for both bus and automobile access. This will allow vehicles to enter and exit the bus loop efficiently. This road entering the bus loop will be connected to the existing street network, and the Park and Ride access road at a traffic light intersection. The single lane roads are a means of making the space more pedestrian friendly and encourage bike or pedestrian access to the facility see Figure 4.10. A bus-only lane will surround the bus stop/commercial hub, allowing buses to easily access the bus stop to pick up patrons. On the outside (right) of the bus-only lane will be a slightly narrower lane intended for smaller vehicular (motorized) traffic, while this will be enclosed by a bike-only lane and a sidewalk surrounding that. Traffic will be one-way, moving anti-clockwise around the loop. A little over half-way around the loop, the twin lanes merge at a set of traffic lights to become one lane.

“Kiss’n’Ride” Design

Eight angled spaces are to be provided adjacent to the bus loop (on the outside), which will be accessed via an automobile-only, one-way access road see Figure 4.18. This one-way road will terminate at a one-way intersection, allowing cars to reconnect to the existing street network.

Landscaping

The Park and Ride Facility will include a significant amount of vegetation throughout the facility, including the parking lot. This will help to create a more ‘organic’ feel, and will be fitting with rural and low-density fringe areas where open space already exists. Landscaping should be drought-tolerant to prevent an unnecessary drain on local water resources. Where it is economically feasible, pervious surfaces (namely sidewalks, roadways, the parking lot, and the space around the hub) will be installed as a means of water re-capture.

Scale and Walking Distances

According to Spillar (1997, p. 42), Park and Ride Facilities should provide adequate space, “to minimize on-site pedestrian walking distance to about 400 to 500 feet and 1,000 feet maximum, while at the same time providing adequate space for expected demand.”

The final Park and Ride Facility design for this project exceeds these recommendations, with a total length of 750 feet (from one end of the facility, to the other), and a width of 330 feet. This results in a total footprint of 5.68 acres. Furthermore, walking distances to the hub (where the bus-stops and commercial activity are located), from all parking spaces within the parking lot, fall within a range of 150 – 320 feet. Therefore, the final design successfully provides users with an extremely pedestrian-friendly Park and Ride Facility.

Bikeway Classifications

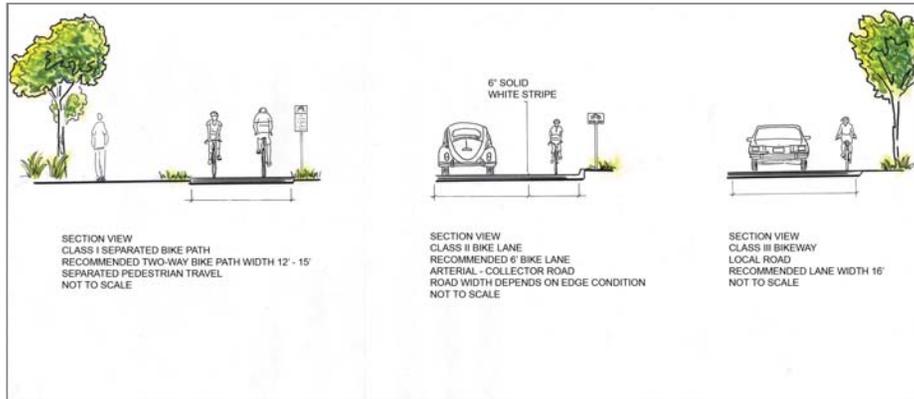


Figure 4.23 Bikeway Classifications

Arterial Roads



Figure 4.24 Arterial Roads

Alternative Transportation Bikeway/Pedestrian Circulation

Concerns surrounding increased traffic, depleting resources and population growth have presented the County with opportunities to make changes towards effective and sustainable land use decisions. As a result, the County is dedicated to finding sustainable innovations that include renewable energy sources and incorporating strategic growth principles into land use planning decisions. Countywide strategies include proposals for amending the land use and circulation elements of the County General Plan.

In an effort to provide assistance to the County, the purpose of the Bikeway study is to place an emphasis on how individuals and communities can engage together in community building to make their streets and city centers safer and livable for the pedestrians and cyclists who use them. Standard Bikeway Classifications are Class I Bike Paths, Class II Bike Lanes and Class III Bike Routes, which are designed toward a particular vehicular roadway

Throughout the County, vehicular roadways vary in lane width and type including: Arterial, Collector and Local roads. Today, these roadways are also serving as a means for alternative modes of transportation and as community corridors and gathering spaces.

Many streets have become the social center of cities serving a variety of functions in the daily routines where people live, work, shop, play and interact (Appleyard, 1981). While streets have primarily served the needs of the automobile, they have also become a place of conflict between the cyclist and pedestrian, both of which require safer routes to travel, making it necessary for communities to find a balance and accommodate

all users. One alternative to high density areas could include a Bicycle/Pedestrian Corridor that is closed to through vehicular traffic.

The purpose of the case studies is to assist the County with its objective to pursue strategic growth measures and to provide examples of public right-of-way accessibility and implementation of their designs.

A range of bicycling programs were researched that have implemented successful smart growth principles, Low Impact Development, design, cyclist and pedestrian safety strategies and traffic reduction methods. The case study research looks at practices, resources and guidance for implementing programs that could serve the County, the economy and the environment. The following study includes:

- *San Luis Obispo County Bicycle Plan*
- *U.S. Department of Transportation-Road Classification*
- *Class I Bike Path*
- *Class II Bike Lane*
- *Class III Bike Route*
- *Bikeway Design Alternatives*
- *Complete Streets Program*
- *Smart Growth Low Impact Development*
- *Traffic Calming - Institute of Traffic Engineers*
- *Bike and Ride Program*
- *Bicycle Share Program*
- *Federal Highway Administration Bicycling on Federal Lands*

(See Appendix H for a complete reference of this case study)

Collector Roads

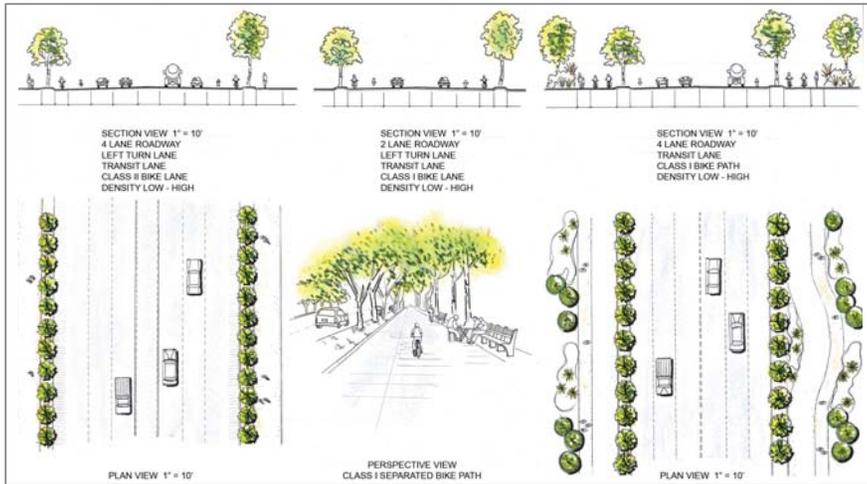


Figure 4.25 Arterial Roads

Local Roads



Figure 4.26 Local Roads

In addition to the case studies, and to improve ridership of bicycles as part of a commuting lifestyle, the following recommendations suggest changes to the County's transportation development patterns, which are designed to encourage automobile trip reduction and to provide planned access as an alternative means of transportation:

1. Promote a bicycle transportation system that is physically integrated with on-street traffic and provides connections to existing corridors and bikeways which improve safety and access for bike riders.
2. Create bikeway linkages to major sites related to employment, recreation, retail and other institutional uses.
3. Adopt a Complete Streets policy toward transportation planning, which mandates that the county improve safe travel conditions for bicyclists and pedestrians.
4. Place emphasis on traffic calming techniques, such as reduced lane widths, curvilinear lanes, uninterrupted commuter bikeways and increased sidewalk widths
5. Improve bicycling infrastructure with increased bikeway lane widths of 6 feet for cyclist safety.
6. Accommodate bicyclists by designating bicycle boxes and test-paint areas where bike-care conflicts are common.
7. Provide convenient bike hub facilities, which include showers, changing, and/or repair services.
8. Provide secure (theft-proof) bike locker facilities.

Pedestrian Corridor



Figure 4.27 Pedestrian Corridor

Overall, the case studies and recommendations supply information as a whole while the individual cases offer specific sources, methods and results. Each study provides an understanding of bicycling and pedestrian issues and needs, which can add strength to the plan amendment process of the County.

Combined with the three alternative land use designs, a comprehensive bicycle and pedestrian circulation plan is recommended to increase accessibility that promotes safe and convenient alternative transportation throughout the County's land use and circulation system. Recommendation for continued and future research of policies, implementation, and financing could include:

Identify local bicycle traffic generators, bike/traffic counts, travel pattern reviews and public awareness campaigns to promote county-wide bicycle networks.

Determine potential economic impact and cost effectiveness to developers when considering bio-swales and other Low Impact Development design.

Consider Diamond /Carpool lane in lieu of proposed transit only lane.

Research the Bus Rapid Transit (BRT) programs within the rural areas of the County.

Research required road and driveway width standards of CAL FIRE to ensure appropriate lane widths and to ensure public safety within rural areas.

Research additional Bicycle/Pedestrian only corridors, such as the Bicycle Boulevard in Los Osos, CA for local assessment.