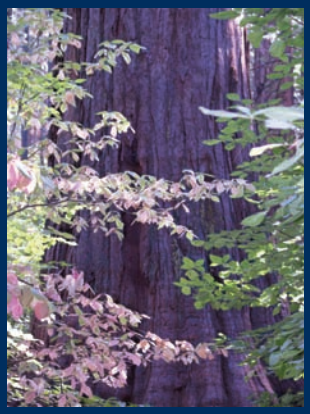

ARNOLD, CALIFORNIA | DECEMBER 2007

making Arnold a livable community

ARNOLD RURAL LIVABLE COMMUNITY-BASED MOBILITY PLAN

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Stantec

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Arnold Rural Livable Community-Based Mobility Plan is the result of a concerned collective effort on the part of community members, agencies, and Stantec.

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Preface

During the preparation of the Arnold Rural Livable Community-Based Mobility Plan (ARLCBMP) it was apparent that the most important outcome for Arnold is improving the livability, viability, attractiveness, and safety of the State Route 4 Corridor; predominately through streetscape improvements. While there appears to be a very strong consensus in Arnold that projects to improve its downtown area are necessary and desirable, there is a wide range of opinions on what type of improvements should be pursued.

This Plan is the result of several Steering Committee meetings and public workshops. The improvement program outlined in the plan has been carefully crafted to be compatible with the self image and rural character of Arnold, while still maximizing the chances of obtaining funding for implementation.

Some of the recommendations for improvement projects may conflict with the opinions of some individuals in the community, but it should be understood that these recommendations are designed to cater to the granting agencies and funding sources most likely to provide funds to implement project improvements in Arnold. Also, please remember that this Plan will be subject to possible changes and refinements desired by the community, as a result of the future phases of the implementation process.

The purpose of the Arnold Rural Livable Community-Based Mobility Plan is to identify an improvement program, suggest design guidelines, and provide a framework for project implementation. The improvement program, discussed in Section 4, will be a vital component in creating a livable community in Arnold.

SECTION 1: PLANNING INTRODUCTION

Introduction

The Arnold Rural Livable Community-Based Mobility Plan was crafted at the direction of the Calaveras Council of Governments (CCOG), with assistance provided by a Community Advisory Committee (CAC) drawn from local Arnold stakeholders and representatives from applicable agencies.

The purpose of the Arnold Rural Livable Community-Based Mobility Plan, is to create a community-based plan reflecting the current needs of traffic calming devices, increasing pedestrian and bicycle safety, parking supply and delineation, economic development, land use refinement, and provision of access to community organizations, recreation, and facilities. The focus of this Arnold Rural Livable Community-Based Mobility Plan is to create a "livable community": a place where residents and visitors alike can share a healthy, safe, and convenient transportation system for traveling around town and through town. The project was funded by a Community-Based Transportation Planning Grant from the California Department of Transportation (Caltrans).

Why is this important?

Residents and employers are increasingly seeking communities where attractive destinations, workplaces, and amenities are within a comfortable, safe, and convenient walking or biking distance from homes. Vibrant, pedestrian-friendly activity centers located close to residential areas (i.e., customers) can create and retain jobs, improve retail sales, strengthen the tax base, and attract tourism and its associated revenues.

Thriving public spaces increase opportunities for residents to interact, creating a strong sense of community and providing a civic forum for community functions and interaction. Livable communities increase safety through the frequent presence of people to keep a watchful eye on businesses and homes, reducing opportunities for vandalism, aggressive behavior, and crime. Livable communities are designed for people, with reduced traffic speed, volume, and noise, which can increase property values and quality of life.

To be effective, the Plan must accommodate both vehicular and non-vehicular modes of travel. In order to achieve this goal, Stantec and participants at the community workshops explored a range of strategies for increasing pedestrian and bicycle safety, traffic calming devices, fulfilling parking needs, and improving access to important community services and destinations.

The improvement program outlined in the Arnold Rural Livable Community-Based Mobility Plan was generated directly from the community residents during a series of interviews, Community Workshop exercises, and reviews. This document presents the prioritization of the recommended projects derived from this planning process. The Plan suggests project sequencing and identifies potential funding mechanisms as part of an overall plan for making Arnold, particularly State Route 4 and "Downtown" Arnold, a more livable community. Project components will be carried out by community members, with assistance from appropriate government and non-government agencies over time.

All components of this Plan will be designed and engineered in order to meet the requirements of Caltrans and Calaveras County where applicable. As a part of the data gathering and research phase of the Arnold Rural Livable Community-Based Mobility Plan project, several preliminary studies were prepared, including an Existing Conditions Summary Memorandum, a Base Traffic Conditions Report, a Publicity and Outreach Strategy Memorandum, and Summaries of Public Workshop Results. These studies provide a vital foundation for the development of this plan and are available through CCOG, on their website at http://www.calacog.org, or as an appendix to this document. In addition, consultants reviewed many County planning documents, interviewed several stakeholder groups, met with the CAC, and facilitated two Community Workshops over a period of twelve months.

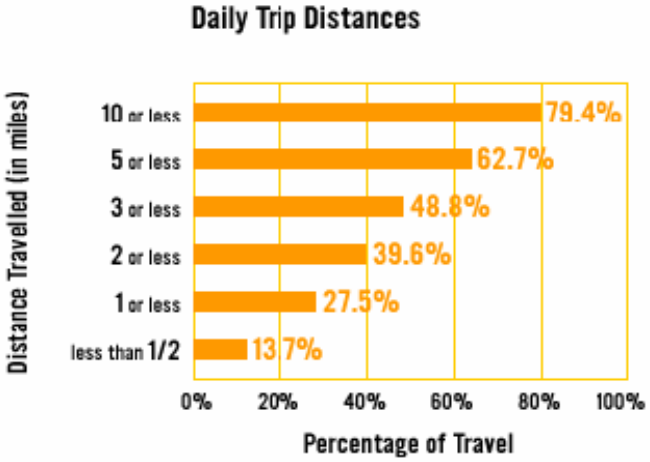
Purpose of the Arnold Rural Livable Community-Based Mobility Plan

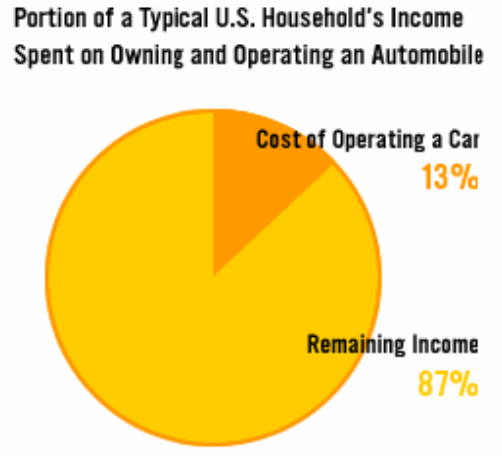
The Arnold Rural Livable Community-Based Mobility Plan provides a comprehensive vision for improving community conditions. It presents a set of goals and strategies to achieve this vision (Section 2), and it includes a framework for creating an improved community environment. The plan prioritizes future pedestrian improvement projects (Section 4).

Making Arnold more livable is intended to improve the quality-of-life of Arnold community residents and visitors. Specific benefits afforded by livable communities are:

Health benefits - The health benefits of regular physical activity are far-reaching: reduced risk of coronary heart disease, stroke, and other chronic diseases; lower health care costs; and improved wellness for people of all ages.

Transportation benefits - Many trips are short enough to be accomplished by walking – over one quarter of trips are one mile or less. Walking can reduce roadway congestion, energy consumption, and driver frustration. Walking is also an important link between other modes of transportation.





Enviro
nmental benefits – Creating a livable environment allows community members to walk more frequently and walking is the most sustainable mode of transportation. Transportation is responsible for nearly 80 percent of carbon monoxide and 50 percent of nitrogen oxide emissions in a community. Fewer trips made by this mode also mean fewer "cold starts" by vehicles, when some of the most toxic emissions occur. A livable community also helps the region meet Assembly Bill (AB)32 Global Warming Solutions Act goals.

Economic benefits – By creating a livable community in Arnold there are other potential mode choices that are available to the

community, such as walking or biking. Walking is the most affordable form of transportation. Livable communities facilitate economic development, increasing surrounding property values and encouraging additional investment in neighborhoods rather than on transportation and fuel.

Quality of life benefits – By providing facilities for the community of Arnold to enjoy walking and biking the community creates intangible benefits to the quality of life. Walking and Biking are indicators of a community's livability – a factor that has a profound impact on attracting businesses and workers as well as tourism. In areas where people walk and bike, there is a sense that these are safe and friendly places to live and visit.

Social equity benefits – Much of our population is unable to drive, including children, many disabled people, seniors, and those unable to afford the cost of owning and operating a vehicle. Because many more people are able to walk than drive, pedestrian travel is more equitable than other forms of transportation.

Safety benefits – Traffic accidents are the primary cause of death among all ages from 3 to 34. Traffic fatality rates tend to be lesser in regions with higher rates of walking and bicycling.

Households in automobile dependent communities devote 50% more to transportation (more that 8,500 annually) than households in communities with more accessible land use and more multi-modal transportation systems (less than $5,500 annually).

Sources: Surface Transportation Policy Project,2000, www.transact.org

How to Use This Document

In conjunction with the Arnold Community Plan, this document should be used as a guide for the implementation of the improvement program, which is proposed in Section 4 of this Plan. This document contains six (6) Sections organized as follows:

Section 1: Provides an overview of the project and project area, setting the stage for proposed improvements

Section 2: Provides goals and policies for Arnold that establish the vision of desirable elements in a Livable Community

Section 3: Provides detailed improvement guidelines that are meant to enhance Arnold's livability based on community preferences expressed during the extensive public outreach process undertaken during the twelve month planning process.

Section 4: Improvements are prioritized, described, located, and evaluated as part of the long term capital improvement strategy and an illustrative diagram complements the written descriptions.

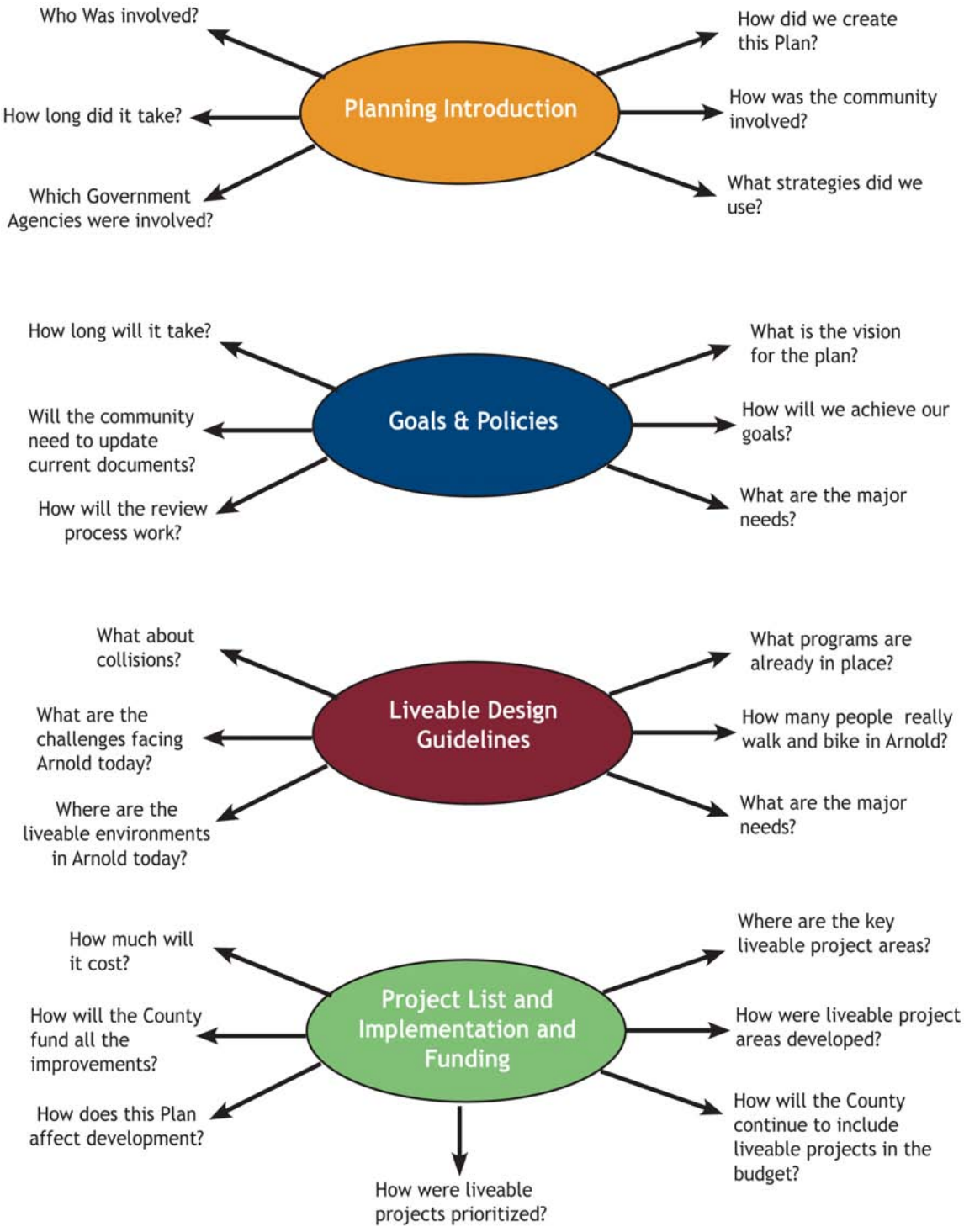
Section 5: Outlines suggested next steps to implement the Plan.

Section 6: Discussion of funding mechanisms appropriate for consideration.

Appendices: The appendices at the end of the plan offer supplementary information in support of the reports recommendations.

In order to maximize the benefit of the plan, it will be presented to the Calaveras Council of Governments (CCOG) and the Calaveras County Board of Supervisors as well as the community of Arnold. Once accepted, it should be made easily accessible to the public at the local library, online, and at the offices of the appropriate local agencies, such as the Calaveras County Planning and Public Works Departments.Ultimately, the role of this plan is to provide the framework for an orderly implementation of the improvement program described herein. Those wishing to reap the most benefits from the Arnold Rural Livable Community-Based Mobility Plan should first read the entire document thoroughly to understand how each part interacts as a whole, and then refer to the individual parts as they become applicable.

How to Use This Document



HOW TO USE THIS DOCUMENT

If you are a citizen...
The Plan contains useful information about current conditions, goals for the future and implementation plan
...see sections 3,4, and 5

If you are a developer...
The Plan creates a new process to evaluate your project's livable features
...see sections 3 and 4

If you are a County staff member ...
The Goals and Policies section outlines specific policy updates to existing county documents. Section 5 includes updates to the County's development review process
...see sections 3, 4, 5, and Appendices

Below is an outline of how the Arnold Rural Livable Community-Based Mobility Plan can be useful regarding specific project aspects:

1. Design

This document describes components of the design solutions preferred by participants in several Community Workshops. In addition, many illustrations are incorporated to clearly communicate streetscape concepts. When the community of Arnold is ready to move forward with project implementation, designers will use this Plan as a basis to collect further meaningful community input, build a consensus, and develop working drawings for a streetscapes that reflects Arnold's unique identity and particular needs.

2. Further Studies

In a few cases, this document is unable to make recommendations for some of the needed improvements in Arnold due to the need for further focused studies and community consensus. If studies are recommended, they are considered as implementation steps included within the overall phasing scheme presented in this Plan. Projects derived from the results of these studies must be considered independent to this Plan.

3. Funding

Capital improvement projects generally require careful planning and considerable effort in preliminary stages. One of the more challenging aspects of the process is often simply finding the funding to undertake design, engineering, and construction. Chapter 6 discusses several grant opportunities that support and encourage the kind of improvements Arnold is proposing. This preparation, in addition to the detailed descriptions of preferred improvements, will help when seeking and applying for grants and other sources of public funds.

4. Community Involvement and Leadership

In an isolated, unincorporated community like Arnold, changes to infrastructure often rely on the concentrated efforts of a relatively few dedicated members of the community who care strongly enough about particular issues to take a leadership role and spend unpaid personal time in research, committee, and coordination. This Plan is the result of just such an endeavor. Once the implementation projects of this plan are underway, more community members are likely to get involved and express their opinions; especially if there is controversy or special interest involved over a project.

While an ongoing community dialogue is crucial to developing community support for publicly-funded projects that affect the residents of Arnold, the downside of a lively debate can be conflict and a slower progress toward the set goal.

One of the purposes in creating this Plan has been to gather community input efficiently and provide today's leaders, as well as those to come, with a solid, clearly-defined, and well-documented picture of the community's preferences. Community leaders will be able to use this action plan as a reference to support future efforts toward implementation without having to "reinvent the wheel" each time funding becomes available. In addition, Section 5 offers a synopsis of next steps, recommendations, and strategies that community leaders can use for setting their efforts into motion more effectively.

Project Area Description

With a population of approximately 4,218 people, Arnold is a small, unincorporated community in Calaveras County, which is commonly identified as the "Gateway to the Big Trees".

Travelers often pass through town as they travel north to the various recreational destinations the area has to offer, such as Calaveras Big Trees State Park and Bear Valley Ski Resort. The town of Arnold is a service center for this sparsely inhabited region as State Route 4 traverses the community, providing the main access into, within, and through Arnold.

State Route 4 is both a state highway and a regional arterial that provides east-west travel access. It is also the "main street' of Arnold, and thus serves many roles to the community and the region. As a local street, it provides access to businesses and residential areas. It is also a major pedestrian, bicycle, and transit route. However, as a state highway, it provides transit for travelers, loggers and truckers traveling through the Sierra Nevada's. It is the goal of this Plan to make the main street of Arnold, State Route 4, a balanced transportation network where it could meet the needs of all user groups and establish 'livable' qualities that make it friendly, safe, and convenient for pedestrians, bicyclists, and motorists to travel.

The project area for the Arnold Rural Livable Community-Based Mobility Plan is approximately four miles in length, starting at the Post Mile 39.33 and extending to the northeasterly development limits of Arnold. This area includes the commercial district of Arnold as well as a small area of adjoining commercial, industrial and residential uses.

The overall project area is bordered by the community of Avery to the south and White Pines to the north. As this study was funded by a Caltrans grant, the area of focus for this project is along State Route 4, taking into consideration the differing land uses of the extended project area and how they impact activities along the corridor.

The development along State Route 4 in Arnold has been generally organic over past years. Building setbacks vary as does the highway shoulder widths, and there are almost no sidewalks available to pedestrians. Many footpaths can be seen along the State Route 4 and often pedestrians are forced to walk in the roadway in order to reach their destination. The interior local roadway network that connects residential areas to the downtown area, mostly disconnected, leaving residents with few travel route options.

Residents and visitors alike tend to rely on personal automobiles due to the topography of Arnold and the lack of pedestrian and bicycle facilities. Currently, Arnold has only one marked crosswalk, which is located near the post office. In addition, the lack of sidewalks throughout town prohibit defined curb cuts at businesses along State Route 4, allowing cars more freedom to choose their access points and thus increasing potential points of conflict between multiple modes of transportation (i.e., automobile versus pedestrian).

There are two (2) descriptive sub-areas within the project area that are identified as the Southern Gateway and the Downtown Village Center. Each has special challenges and conditions addressed within the overall Plan. For more information on existing conditions please see the Existing Conditions Summary (Appendix B) and the Base Traffic Conditions Report (Appendix B).

1. Southern Gateway Sub-area:

The entry into Arnold, from the south, is recognized at the sight of the Snowshoe Brewery and the Meadowmont Golf Course on the left of State Route 4. The wide, two-lane highway approach is open, and relatively undeveloped. A majority of this area is owned by individual property owners and is

designated for Planned Development, such as commercial and residential uses. The primary improvements proposed for this area in the Arnold Rural Livable Community-Based Mobility Plan is Gateway Project, Project No. 1. Project No. 1 is located at the intersection of Fir Drive and Pine Drive, at the Meadowmont Shopping Center. This gateway project will include a traffic-calming median located just south of Pine Drive.

2. The Downtown Village Center:
As a commercial center for the Arnold population, downtown Arnold is relatively heavily traveled. At the same time, this area is also the public "face" of the community shown to visitors and passersby. In order to provide both residents and travelers a safe, and pleasant experience as they shop, work, and visit in Arnold, this plan recommends a comprehensive rehabilitation of the pedestrian and bicycling environment in this downtown core, in combination with certain traffic calming measures. In the interest of efficiency, and consistency, specific improvements described for the Downtown Core Village Center should be considered as a group instead of individual projects as much as possible.

Relationship to the Arnold Community Plan

As an unincorporated community, Arnold falls under the jurisdiction of Calaveras County and is subject to the *Calaveras County General Plan and Arnold Community Plan*.

The General and Community Plans provide general goals and policies governing development throughout the entire community. In 1991, a volunteer committee consisting of thirty-eight people initiated a community effort to update the *Arnold Community Plan*.

The volunteer committee took approximately 7 years developing the *Arnold Community Plan* (ACP) and getting it adopted as an amendment to the *Calaveras County General Plan*. The ACP provides planning goals and policies specific to Arnold, as a supplement to the General Plan, and shall apply for an approximate 10-year planning horizon. However, after its adoption in 1998, the ACP has been unable to specifically address concerns relating to transportation and land use effectively.

The ACP clearly states that all land use decisions must be consistent with the Arnold Community Plan, as required by the California Government Code. Therefore, no land, building, structure, or premises shall be developed or reconstructed in a manner that is inconsistent with the *Arnold Community Plan*.

Pedestrian, traffic, and public safety improvements to enhance Arnold's livability are possible to accomplish within the varying right-of-way widths currently available. Therefore, the improvement program presented in this Plan has been developed to be consistent with the ACP.

Relationship to the Calaveras County Bicycle Master Plan and Calaveras County Pedestrian Master Plan

It is critical that the Arnold Rural Livable Community-Based Mobility Plan improvements be coordinated with the proposed plan for Bicycle Facilities within Calaveras County.

The best possible scenario is that the projects be planned and implemented simultaneously, in order to maximize efficiency, minimize costs of materials and labor, and shorten the period of disturbance to local residents and merchants. There is also hope that funding sources for one phase might "dovetail" into the other. For these reasons, it is imperative that Arnold begin developing funds for design and implementation of desired improvements that overlap with the scope of the Calaveras County Bicycle Master Plan. At the very least, the Arnold Rural Livable Community-Based Mobility Plan and/or a more detailed Calaveras County Bicycle Master Plan should be provided to the project engineers when, and if, the jointly identified projects get underway.

SECTION 2: GOALS, POLICIES AND OBJECTIVES

GOALS

The Arnold Community is committed to walking as a form of transportation and recreation that is safe, accessible, healthy, and affordable for all community members and visitors. Every person is a pedestrian at some point during the day. We all walk each day whether to a school, transit stop, to a parked car, to work, or for exercise. Arnold also recognizes the value of walking for promoting environmental sustainability and the commercial vitality of downtown and neighborhood districts. To promote these benefits of a livable-walkable community, the Arnold Rural Livable Community-Based Mobility Plan specifies the following six goals.

1. Livable Community. Construct a street environment that strives to ensure pedestrian safety and create vibrant, walkable, neighborhoods with definable center, edges, and connections.

2. Pedestrian/Bike Access. Develop an environment throughout the Arnold Community – prioritizing routes to school and community activity centers – that enables pedestrians/bicyclists to travel safely and freely.

3. Streetscaping and Land Use. Provide pedestrian amenities and promote land uses that enhance public spaces and Arnold commercial districts.

4. Improve Current Transportation Gaps. Prepare a methodology for creating a capital improvement program that enables the County to systematically retrofit deficient sidewalk and pedestrian crossing locations.

5. Implementation. Integrate pedestrian considerations based on federal guidelines into projects, policies, and the County's planning process. Incorporate consideration for pedestrians into all County policies, standards, and procedures in order to enable the county to gain the best pedestrian environments from new land use developments and transportation projects.

6. Transportation Choice. Provide a variety of transportation choices that promote accessible alternatives to the automobile, including walking, bicycling, and taking transit.

POLICIES AND OBJECTIVES

Policy: Connectivity

Connectivity refers to the street and pedestrian network. A well-connected network of streets and pedestrian ways means that it is easy for the pedestrian to get around. Connectivity includes support for safe, convenient street crossings.

Objectives:

- Develop a cohesive pedestrian network of sidewalks and street crossings that make walking a realistic way to get around.
- Provide a continuous pedestrian network that connects through blocks and sites, and connects buildings to each other, to the street, and to transit and school bus stops.
- Provide crossings on State Route 4 that are convenient and comfortable for pedestrians.
- Provide direct connections or shortcuts from residential areas to neighborhoods, commercial destinations, schools, public library, parks, gathering places, and trails, especially in new or infill development.
- Connect dead-end streets or cul-de-sacs to pedestrian trails or adjacent streets to encourage pedestrian connectivity with "Postman Trails". ("Postman Trails" are pedestrian easements dedicated on property lines.)

The goal of the Federal Transit Administration's Livable Communities Initiative is to strengthen the link between transit and communities by improving personal mobility, transportation system performance, and the quality of life in communities by:

- strengthening the link between transit planning and community planning, including land use policies and urban design supporting the use of transit, and ultimately providing physical assets that better meet community needs;
- stimulating increased participation in the decision-making process by community organizations, minority and low-income residents, small and minority businesses, persons with disabilities, and the elderly;
- increasing access to employment, education facilities, and other community destinations through high quality, community- oriented, and technologically innovative transit services and facilities

- Follow the recommendations outlined in the Section 3 Livable Design Guidelines related to frequent, secure crossing opportunities.
- Reduce, eliminate, or provide access around sidewalk obstructions, such as utility poles, that are barriers to pedestrian travel.

Policy: Travelway Character

Travelway character refers to the roadway space between curbs as well as sidewalk space. Roadway space can be designed to serve traffic while still providing a high-quality pedestrian environment and improving safety for all modes. The design of the sidewalk and the elements within it is also a key part of creating a pedestrian-friendly environment. This requires more than just a minimum width of sidewalk. Sidewalks are multi-functional, and their

design should reflect the need to provide walking space as well as other functions that occur on the sidewalk (such as outdoor dining, window shopping, waiting for transit, sitting on benches, and so on).

Objectives:

- Create a street design sensitive to its context.
- Design sidewalks that are enjoyable to walk along and that acknowledge their multi-functional purposes.
- Provide landscaped sidewalk buffers and urban design features, especially along State Route 4, in order to encourage walking and create a sense of place.
- Follow the Livable Design Guidelines: add wide sidewalks, medians, and wide buffers where appropriate.
- Consider flexibility in roadway cross-sections and classification in pedestrian zones and commercial districts.
- Improve the street-level experience for pedestrians, including addition of street trees to provide shade and enhance streetscape appearance. This includes amenities such as tree wells, seating, waste containers, pedestrian-scale wayfinding signage, and news racks in commercial corridors.
- Encourage wider sidewalks in areas with high levels of pedestrian activity. The width of a sidewalk should be proportional to the demand for pedestrian activity. High activity locations should have wider sidewalks to allow for additional amenities such as seating, window shopping, and conversing with passersby. For a more detailed discussion of appropriate sidewalk widths, see Section 3.

Policy: Context Character

Context Character refers to the way the adjacent functions interact with the pedestrian. A pedestrian friendly environment should have a positive relationship to an area's land use. A mix of complementary land uses and appropriate densities is necessary to make walking a realistic option. The configuration of development facing the pedestrian way is also a key factor in pedestrian comfort and safety. Improvements can be made by building stores with little or no set back and constructing parking at the side or rear of a site. The character of architecture should be welcoming to pedestrians. Good walking environments have visual interest, a sense of security and protection, and easy access to adjacent buildings. Finally, parking facilities can be shared and integrated into the community in such a way that they do not alienate the pedestrian, but allow for safe and comfortable pedestrian movement.

What is Context-Sensitive Design?

"A collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic, and environmental resources, while maintaining safety and mobility. CSD is an approach that considers the total context within which a transportation improvement project will exist." — **Federal Highway Administration**

"'Context-sensitive' highway design...considers an area's built and natural landscape; takes into account the environmental, scenic, aesthetic, historic, community, and preservation impacts of a road project; and provides access for other modes of transportation such as bicycles, pedestrians, and mass transit." — **Scenic America Web site**

Objectives:

- Strengthen the transportation – land use connection by mixing land use types, allowing appropriate densities, and encouraging compact development where walking is the mode of choice.
- Configure development on a site to have a strong relationship to the pedestrian setting, providing easy and frequent access and minimizing potential automobile conflicts.
- Design buildings such that their architecture enhances and encourages pedestrian activities.
- Provide pedestrian friendly automobile parking layouts to prevent isolating pedestrians from their destinations.
- Encourage walkable land use patterns, including Mixed Use Development, village rodes, and village centers.
- Provide clear, direct, and attractive internal pedestrian networks that connect buildings, neighborhoods, and commercial centers to the adjacent sidewalk.
- Avoid "blank walls" wherever possible and create multiple entry points from the sidewalk into new developments.

One of the goals of the Arnold Rural Community Based Mobility Plan is: To improve neighborhood livability by reducing the impact of traffic in residential neighborhoods, which promotes safe and pleasant conditions for all users of local streets.
Source: Trevor Macenski, Public Workshop #1

Policy: Pedestrian Safety

Pedestrian safety policies address the need to create safe, visible, and convenient pedestrian roadway crossings, internal site circulation, seamless access to transit and school bus stops, and truly multimodal streets.

Objectives:

- Improve pedestrian safety at intersections and mid-block locations by providing safe, well-marked pedestrian crossings.
- Develop and implement speed management policies that support safe driving speeds on all community roadways and State Route 4.
- Ensure use of and consistency with the *Livable Design Guidelines in Section 3*.
- Provide adequate pedestrian crossing times. Intersection crossings that are controlled by a signal should ensure adequate pedestrian crossing time is provided, particularly in areas where there may be children and seniors.
- Minimize pedestrian crossing distances by reducing lane widths.
- Explore opportunities to reduce roadway widths where appropriate.
- Support opportunities to provide angled on-street parking. Angled on-street parking can enhance the pedestrian environment and improve pedestrian safety by providing a wider buffer between vehicle travel lanes and the sidewalk. Angled parking can be front-in or back-in, though back-in angled parking is generally more favorable for bicyclists and can provide a traffic calming effect.

Policy: Livable Community Review Process

Integration of pedestrian facilities into new development projects is a key element to becoming a livable community. When a project application is submitted, County staff should review the project to determine how to

best apply pedestrian accommodations. If the proposed project is considered sufficient, County staff will prepare conditions of approval for the project. Otherwise, the project proponent is asked to revise the project to make better pedestrian accommodations.

Objectives:

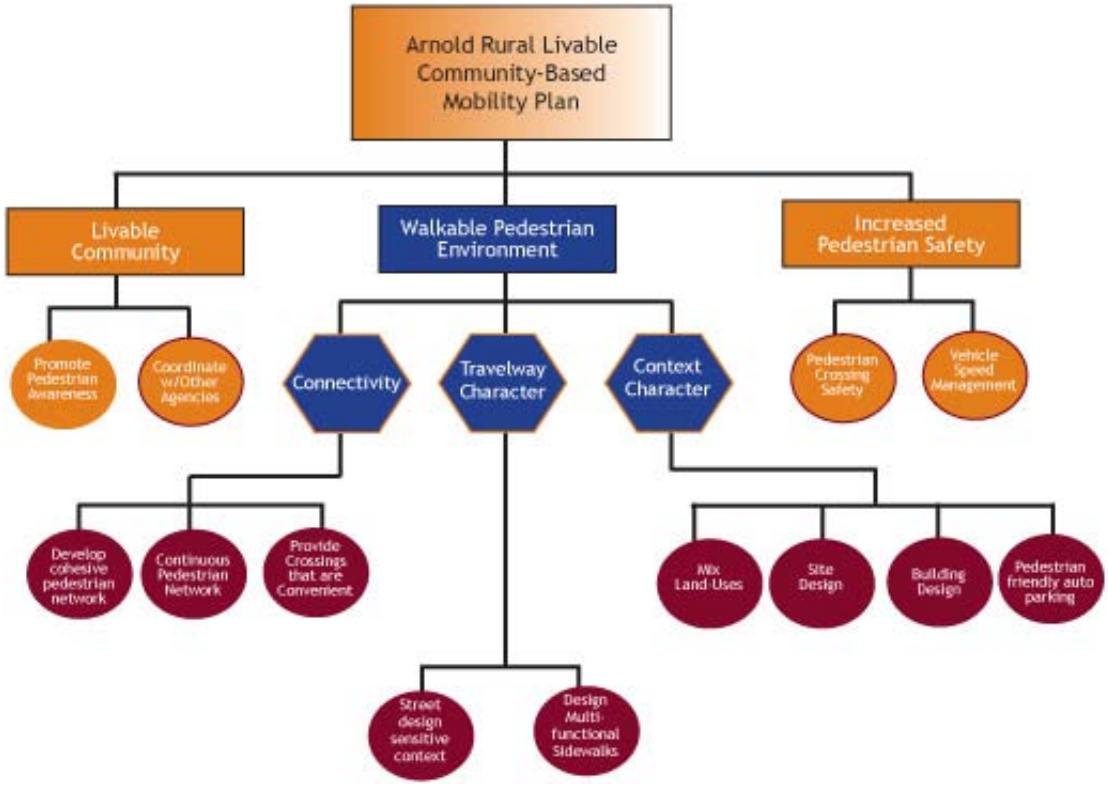
- Consideration of the pedestrian environment involves the review of resource materials such as the Livable Design Guidelines in this plan, traffic calming guidelines, and streets standards.

- Most streets should be targeted to have "basic" facilities. To meet the needs of pedestrians throughout the Arnold Community, just providing this base level will not be enough to meet the demand. A three-tiered approach is recommended, where more intense improvements are proposed for areas of increased demand.

- Beyond street improvements, the need for adjacent pedestrian facilities and adequate internal pedestrian circulation should be evaluated.

SUMMARY OF GOALS, POLICIES AND OBJECTIVES

The goals policies and objectives of the Arnold Rural Community Based Mobility Plan fall into three categories: creating a walkable pedestrian environment; planning a livable community; and increasing pedestrian safety.



SECTION 3
LIVABILITY DESIGN GUIDELINES

Introduction

This Section proposes specific "design guidelines" for the livability and improve mobility. Roadways and streetscape improvements will be designed within the community in order to create a unique livable community with an identifiable village center and also provide a balanced transportation system that integrates a variety of transportation choices.

Section 3 outlines the types of improvements recommended for the State Route 4 corridor and planning area. This plan recommends that the next phase of work to implement the Arnold Rural Livable Community-Based Mobility Plan include the development of a Village Center Downtown Design Site Plan to resolve the final design treatments for these improvements. All improvements described in this Section for pedestrian and bikeways, street lighting, landscaping, signage, and medians located within the State Route 4 right-of-way must comply with Caltrans Highway Design Manual standards. Streetscape design features that do not meet these standards would require a Justification for Design Exception from Caltrans, which can be a time consuming process.

Sierra Club on Livable Communities

"People need livable communities and a high quality of life. The attractiveness of older small towns and a scattering of newer developments demonstrate the appeal of certain characteristics. Lively downtown areas, streets designed for pedestrians as much as autos, a scale and pattern of development that allows us meet everyday needs by walking, are all key factors in ensuring communities provide a high quality of life."

The Arnold Rural Livable Community-Based Mobility Plan design guidelines have been developed for the community of Arnold. These standards are intended to provide consistent design principles for the streetscape improvements along State Route 4 and the land use adjacent to the roadway.

The design guidelines have been created for the use by residents, developers, design professionals, County of Calaveras Planning Staff, and any future design review boards. They are intended to facilitate the design review process by helping applicants and the County Planning Staff identify important design issues and devise solutions early in the application process. In summary, these design guidelines are intended to:

- Create a positive sense of place and enhance community identity;
- Promote community pride;
- Encourage high-quality development and provide creative design solutions and options;
- Provide clear and usable design direction to project applicants, developers, designers, and Calaveras County Planning Staff; and
- Facilitate a clear and expeditious project review process.

Improvement projects will be reviewed for compliance with the design guidelines identified in this Section. Although it is

understood that not all design principles will be applicable to all projects along the State Route 4 corridor, conformance with relevant principles will be required by the County Planning Staff.

Overall, the design guidelines are intended to encourage consistent design within the community of Arnold, while allowing for variety and innovation. Please note that the County Planning Staff does not advocate a particular streetscape style or standard, but will review all applications on the basis of the guidelines in this plan.

General Design Guidelines

Designing and operating streets is complex because there are so many competing demands on how streets are used. People want to travel using a variety of modes. Trucks, buses, cars, feet, bicycles, wheelchairs, etc.—these are all modes of transportation that share our streets.

Project-wide development guidelines have been prepared to be applicable to each individual project. These general design guidelines are:

The community's street system should encourage alternate mode use especially walking and bicycling, by working toward a balance of all street users...Street design should enhance and improve pedestrian safety and comfort and encourage non-motorized travel modes.

Source: Brent Moore, Public Workshop #1

Pedestrian Facilities

A Standard for "livability" provides a continuous non-vehicular thoroughfare throughout the community, with as many points of access and connection as possible. A continuous linear walkway system along State Route 4 will dramatically improve the pedestrian experience in Arnold by enhancing safe and pleasant access to services and shopping and encourage infill development and redevelopment.

When Community Workshop participants were asked their preference about pedestrian facilities in Arnold, they chose "continuous sidewalks/pathways" and "improved off-street paths" in relatively equal proportion, with "narrow road shoulders" as a distant third option. Combining these three strategies into a connected walkway system, and adapting to Arnolds variable conditions and constraints, implementing modifications in surface and construction method when necessary, will be more beneficial and cost-effective than trying to apply a uniform, "one-size-fits-all" solution throughout the corridor.

Sidewalks, walkways, and crosswalks can help direct pedestrians to trail connections and other access points. Implementing formal sidewalks in the Village Centers will also clearly delineate driveways so that vehicular turning movements in and out of parking areas are regulated, which will improve traffic flow and livability in the Village Centers. All pedestrian facilities within the State Route 4 right-of-way need to be consistent with the Caltrans Highway Design Manual standards.

Are we People-Friendly ?

The ability for people to walk to get to destinations has diminished significantly in recent decades. Today, in most communities, we need a car to get around. This is largely due to the design of communities that focus on allowing cars – not people – to get around. The irony is that by emphasizing motor vehicle transportation we've ended up creating more congested roadways that are unsafe for all users, including motorists.

Wide streets, poorly designed streets and intersections, lack of sidewalks and poor connectivity have resulted in physical environments that are dangerous to pedestrians. These conditions further discourage people from walking. When people do venture out to walk on these streets, they often face high-speed traffic and dangerous conditions that result in high rates of pedestrian injuries and fatalities. In California, pedestrian deaths account for more than 20% of all traffic-related fatalities each year, according to a Surface Transportation Policy Project report.

1. Sidewalks in Village Centers

Sidewalks were frequently mentioned in conversations with residents, visitors, and stakeholders as a major priority for Arnold's Village Centers. There is strong community support for pedestrian facilities on both sides of State Route 4 beginning at Pine Drive, on the south end of town, continuing to the north end where State Route 4 and Arnold Byway merge. Creating more functional walkability in this heavily trafficked area will go a long way toward changing perceptions of comfort and accessibility and create a more desirable pedestrian zone.

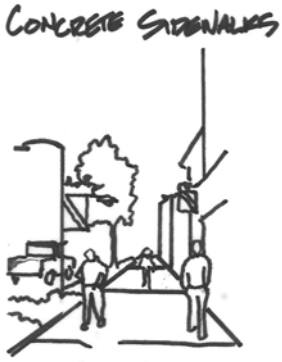
Health and Community Design

Obesity was linked to 300,000 deaths in 2000. 70% of adults do not get the recommended 30 minutes of daily physical activity.

Diabetes has increased by 67% among California adults – which is linked to a dramatic rise in obesity and physical inactivity in adults

sources: National Center for Chronic Disease Prevention and Health Promotion, CDC; Behavioral Risk Factor Surveillance, 1986-94; California Center for Public Health Advocacy

Sidewalks are typically made of concrete which is durable, easy to install, and compliant with the American Disability Act (ADA). Standard curb and gutter facilities and appropriate ADA accessibility measures (ramps, etc.) must be included in construction. The community of Arnold has also expressed an interest in incorporating landscaping and street furniture (benches, waste receptacles, etc) into their pedestrian environment. Street furniture should be consistent with the character of the community, resistant to vandalism, and comfortable.



Participates at the Community Workshops preferred three different sidewalk configurations: (1) meandering sidewalks with pockets of landscaping; (2) wider sidewalks with trees in grates; and (3) a five foot (5') straight sidewalk with a landscape buffer. This Plan recommends reserving a ten foot (10') pedestrian allowance on both sides of State Route 4 through the Village Centers. In the improvement program diagram (Appendix A) this allowance is drawn as a five and a half foot (5.5') straight sidewalk, separated from the street with a four foot (4') planted strip between the sidewalk and a six inch (6") curb, with an extended sidewalk area to accommodate pedestrian crossings.

Community Workshop participants indicated a preference for incorporating ornamental paving that could tie in with crosswalks, highlight special areas, such as points of access to trail heads, and contribute to a cohesive feel in the Downtown area.

Project numbers 3, 5, 7, 14, 16, 21, 23, and 27 incorporate sidewalks amongst streetscape improvements. Detailed descriptions of each project can be found in Section 4.

2. Off-street Walkways in Arnold

In Arnold, where conditions become too narrow or too steep to accommodate sidewalks, off-street walkways could be constructed along State Route 4 where there is a bit more room to accommodate pedestrian access. Walkways should be three to five feet (3-5') wide, installed in order to keep grade changes to a minimum (preferably under 5%), and paved with a smooth surface to comply with ADA regulations.

Participants at the Community Workshops expressed a preference for compact, crushed gravel for path surfacing. However, this type of path surfacing requires the assurance that the path is ADA accessible, has cross-slope drainage, and is durable during the design phase. Decomposed granite is a specific type of crushed rock that is relatively easy to install and maintain, as well as has a low installation cost. It has a "soft" appearance and good porosity that allows water to penetrate through to the soil below. However, it requires maintenance over time. If it becomes necessary to allow for a more formalized walkway, or to protect areas that are more prone to erosion, a resinous polymer may need to be added to the decomposed granite in order to create a long-lasting lifetime.

Best used if…

- an arterial street without curbs or sidewalks has high traffic volumes and speeds
- there are nearby destinations such as schools, shopping areas, medical facilities, social service agencies, or high density housing to which people walk
- transit stops are located along the roadway with no safe pedestrian access
- the walkway would complete a missing link of sidewalk or walkway
- insufficient resources for a concrete sidewalk.

Don't use if …

- street has a high volume of pedestrian and vehicular traffic
- drainage ditches have to be closed to accommodate the walk-way
- walkway eliminates on–street parking that is an established priority
- extensive rockery, retaining wall, or handrail required
- utilities must be relocated.

Designing Safe Environments

Pedestrian deaths account for more than 20% of all traffic-related fatalities in California each year.

More than 600 people are killed and another 13,000 are injured every year as pedestrians in California.

Being hit by a car while walking is the 2nd leading cause of death for California children aged 5-12. Nearly 5,000 child pedestrians are injured annually.

sources: Surface Transportation Policy Project, "Dangerous by Design Pedestrian Safety in California" and "Caught in the Crosswalk"

Project numbers 2, 4, 6, 8, 10, 11, 12, 13, 17, 19, 22, and 24 implement off-street sidewalks as a streetscape improvement. Detailed descriptions of each project can be found in Section 4.

3. Widened Road Shoulders to Fill in the Gaps

Expanding the asphalt shoulders of State Route 4 may be the only feasible enhancement of the pedestrian environment in certain sections along the corridor. Adding additional asphalt, four to five feet (4-5') depending on available space, beyond the white line that bounds the travel lane would be an inexpensive and quick way to add shared capacity for people bicycling or walking along the highway, as well as providing a "recovery lane" for cars that need to stop temporarily.

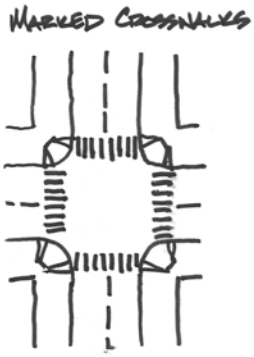
Widening road shoulders could function as an interim or additional measure while other improvements are in progress. Off-street walkways, discussed in the previous section, should connect to these areas of widened shoulders for pedestrian convenience. The improvement program diagram (Appendix A) shows five feet (5') of shoulder beyond the travel lane throughout the project area.

Project number 15 and project number 20 incorporated widening the road shoulders in order to improve pedestrian facilities along the streetscape. For a detailed description of these projects see Section 4.

Crosswalks

More marked crosswalks will allow more choices for the pedestrian, as well as providing a visual cue to drivers to reduce speeds. During the community workshop process participants identified crosswalks

at various locations. The specific crosswalk locations are shown in Appendix A. These locations are all in the Village Centers and should reflect the greatest degree of enhancement that budgets will allow, within the parameters of the Caltrans Highway Design Manual. Marked crosswalks alert motorists that they are approaching a high pedestrian location, and guide pedestrians to a safer crossing. Crosswalks are usually marked lines, either two parallel lines or a ladder–type pattern. They can also be textured or made of colored concrete. The most desirable situation, in terms of impact and efficiency, would be for all crosswalks to be implemented simultaneously and with consistent treatment. Crosswalks along State Route 4 are less of a priority and could be installed either later or less intensively without detracting from the improvements in the Village Center. (Please see the Improvement Program Diagrams in Appendix A for more details)



Some of the crosswalks identified are mid-block crossings without stop lights or stop signs. The design of these crossings should consider also using a variety of traffic calming techniques in order to enhance visibility and prominence of the crosswalks, and to caution pedestrians against a false sense of security.

Policy 11A in the *Arnold Community Plan* states that new road construction design that preserve the rural character of Arnold will be supported, provided that a serious safety problem is not created. However, Caltrans has maintenance and ADA compliance concerns with pavers. Therefore, a similar decorative treatment may be an adequate substitute instead of pavers. Participants at the Community Workshops indicated preferences for ornamental paving, as well as a highly-visible, high-contrast treatment such as Street Print's Duratherm product or bright white striping.

Best used if…

- crosswalk identifies a preferred crossing for the pedestrian: improved sight distance, reduced crossing distance and reduced vehicle/pedestrian conflicts
- used by a high number of pedestrians at intersections.

Don't use if…

- locations have high traffic speeds
- locations have multiple travel lanes per direction
- locations are not accompanied by warning or traffic control devices.

Project numbers 3, 9, 14, 16, and 23 implement crosswalks as streetscape improvements. Detailed descriptions of each project can be found in Section 4.

Curb Bulbs

Curb bulbs extend the sidewalk into the street. The bulbs, which may be landscaped, improve pedestrian crossings by providing better visibility between pedestrians and motorists, shortening the crossing distance, and reducing the time that pedestrians are in the street. Curb bulbs located at an important crossing also prevent people from parking in a crosswalk or blocking a curb ramp. Curb bulbs may encourage motorists to drive more slowly by restricting turning speeds and narrowing the roadway.

Best used if…

- the intersection is used by many pedestrians
- the curb lane is a permanent, 24–hour parking lane
- a documented pedestrian/vehicle conflict exists involving turning vehicles.

Don't use if…

- curb lane is used as a travel lane, including lanes that are used for transit, or that have peak hour "no parking" signs
- right or left turn lanes are needed at an intersection
- large curb radii are required due to transit and truck turns

- extremely heavy parking demand (construction of a curb bulb may result in the loss of a parking space).

Curb Ramps

Curb ramps provide a gradual transition between the sidewalk and roadway height. Curb ramps provide access for wheelchairs, walkers, strollers, and hand carts, and are installed at intersections and mid–block crossings.

Best used if…

- curb ramps provide access to transit zones, social service agencies, medical facilities, employment locations, retail areas, schools and residences on arterial streets
- on any residential street, curb ramps should be located within two blocks of an arterial served by transit.

Streetscape Lighting

Should possible future infrastructure needs be provided, the potential to expand facilities to provide street lighting shall be evaluated. In the case of street lighting, this goal would be best served, if design and construction budgets allow, by providing potential future tie-ins to the grid, at regular or designated locations, through the use of "stub-outs."

Street lights within the community should be designed so as to improve pedestrian safety, while impacting the night environment as little as possible. Participants at the Community Workshops expressed a preference for minimal street lighting at crosswalks and intersections. They stated that they preferred that light was provided by modest, historic style lamps that were low maintenance and were vandal-proof bollard lighting at key points along the walkways. Solar-powered and/or PG&E-maintained options should also be explored.

Landscaping

Landscaping is recommended at gateways, in medians, and in sidewalk planters within Arnold in order to visually integrate the built environment into the surrounding landscape. All publicly landscaped areas should follow a recognizable theme, with a consistent palette of natural landscape elements. Materials should be low maintenance, have low water needs, and tolerant of mountain range weather conditions and intermittent pollution. Elements should also be physically low, preferably native grasses and shrubs, planted in informal clusters that will add interest and blend nicely with the landscape to provide a permeable screen without impairing visibility. If possible, planted areas should be irrigated with drip tubing to promote establishment and longevity. Designers should consider decorative rock or other "hardscape" material as well and paying careful attention to other drainage requirements.

A plan for funding and scheduling of maintenance will need to be established in order to maintain the appearance of such areas. Local businesses or interest groups may be interested in "adopting" an area and contributing to its upkeep. It may be possible that a local garden group, park association, or native plant society could undertake plant procurement and installation.

Projects that would improve the landscaping along the corridor are project numbers 1, 20, 25, and 26. For a detailed description of each project, see Section 4.

Consolidation Driveways

There are multiple driveways providing access to and from State Route 4 throughout most of Arnold. A series of driveways have been identified to consolidate access and increasing onsite parking, while reducing turning movements on and off of State Route 4.

Along State Route 4, many driveways will be consolidated in order to improve mobility. In the southern portion of Arnold, where many of the shopping plazas are located, driveways have been identified and improved in order to accommodate both pedestrian traffic and vehicular traffic. Projects that incorporate the consolidation of driveways include project numbers 3 and 9. For a detailed description of each project, please refer to Section 4.

Parking

Designation of efficient and adequate parking areas is vital to improving livability in Arnold. Because most travel to Arnold and around Arnold by car, parking is a critical necessity in Arnold. This Plan recommends that the community of Arnold undertake a focused and comprehensive Parking Study to develop viable alternatives to facilitate parking solutions to address parking needs in Arnold.

The Parking Study would need to take into account the parking needs of businesses along State Route 4, existing parking capacity, and the future parking needs in accordance with the projected growth patterns. In addition, the study would need to accommodate the improvements proposed in this Plan and address potential displacement of the existing parking. Ideally, this Parking Plan would also address redesigning the existing lots and consider consolidating driveway locations in order to maximize safe circulation and parking volumes. This study should take place in the near future so that the results could be incorporated into the implementation process as discussed in Section 4.

"Many of the commercial parcels along Highway 4 have inadequate onsite parking, therefore parking in the right of way is currently necessary."

Source: Circulation Element of the Arnold Community Plan, December, 1998

At the first Community Workshop, participants identified potential locations for new public parking areas. Most are privately owned and would require negotiation with landowners to secure for public parking areas. It has been suggested that a parking district could be formed to publicly acquire these areas, improve them, and provide for ongoing maintenance. In addition, it was suggested that the Bank of America parking lot be further investigated for additional parking.

Angle Parking

If streets are wide enough, angle parking increases the total number of parking spaces that can fit within a block. A minimum roadway width of 40 feet is used as a guideline to allow for parallel parking along one curb, one lane of traffic in each direction, and angle parking along the other curb. With the presence of angle parking, the parked cars extend further out into the street, thus reducing the travel lane width, which often results in slower speeds through the area.

Best used if…

- street is 40 feet or wider
- slower speeds are desirable.

Don't use if…

- street is less than 40 feet wide
- curbs must be relocated in order to obtain required width.

The projects which will add additional parking along the corridor include project numbers 3, 9, 20, and 26. Section 4 below describes each project in detail.

Signage

Way finding signage directs motorists, pedestrians and bicyclists through a system of coordinated cues, using appropriate viewpoints, sightlines, distances, and speeds. Such signage should be used to direct people to important services as well as recreational opportunities and points of interest. The signage system should be designed comprehensively to reflect the rural mountain community character of Arnold, without obscuring views. They are usually three feet by two feet, with white lettering on a green background. Logos can be on the sign and can be a different color than white. The logo, however, cannot appear to be an advertisement for a specific group or organization Workshop participants seemed to feel that the familiar carved wooden signs some merchants in town are already using would be a good model to follow.

A coordinated way finding signage scheme needs to be established to direct people to:

- Wilderness Access
- Trails
- Community Services
- Community Landmarks
- Public Parking Areas
- Public Restrooms

Best used if…
- the community would like to identify a neighborhood or business district
- the neighborhood would like to enhance community identity.

State Route 4 Improvements

It is recommended that roadway cross sections for State Route 4 through Arnold include a twelve foot (12') wide center lane, an eleven foot (11') travel lanes in each direction, two five foot wide (5') Class II bike lanes, and a 10-18' wide pedestrian way that would include landscaped planting areas on either side of State Route 4. On-street parking would be included between Sierra Pine Way and approximately 600 feet to the north from Applewood Center Plaza. Please refer to the Arnold Improvement Program Diagram (Appendix A) for a conceptual illustration of the improvements recommended for State Route 4 corridor.

In addition to these general roadway improvements, there are the improvements outlined below.

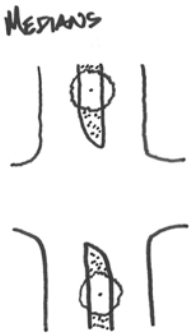
1. Turn Pockets

Community Workshop participants and stakeholder interviews suggested that traffic congestion in Arnold is often due to motorists stopped on State Route 4 when waiting to make left turns into parking areas or driveways. Conversely, traffic "slow-downs" are also caused by drivers attempting to leave driveways or parking areas and merge onto State Route 4. Left-turn channelization, in the form of left-turn pockets or a continuous two-way left-turn lane, may be a partial solution to this problem.

This Plan recommends turn pockets, designated with either striping or planted medians, and/or center lanes at the locations described below, based on an evaluation of safety criteria together with level of service and delay for intersection and driveway traffic. Please see the Base Traffic Conditions Report (Appendix A) for warrant analysis information.

Turn pockets are incorporated in the following project numbers: 14 and 27. A detailed description of each project can be found in Section 4.

2. Medians



Medians can be raised or at grade islands in the center of the roadway. Generally, they separate lanes of one-way traffic on either side. However, in Arnold, medians could serve multiple purposes. They could regulate left turn activity to particular locations, while keeping center turning lanes from being used for passing. Medians would also help regulate traffic speeds by visually narrowing the perceived width of the roadway and making many drivers, consciously or subconsciously, feel less comfortable traveling at higher speeds.

Streetscape treatments, such as decorative hardscapes, landscaping, and directional signage can be located within the medians. The Improvement Program Diagram (Appendix A) shows landscaped medians serving multiple purposes: guiding left turn movements, and breaking up the center lane to discourage passing. The conceptual median signs and locations shown in Appendix A may require modifications during design review for safety and operational purposes.

Best used if…
- the volume of traffic on the street can be accommodated with fewer or narrower lanes
- in conjunction with existing two–way left turn lane
- a high volume of pedestrian crossings can be accommodated

Don't use if…

- transit or emergency vehicles would be unreasonably impacted
- adjacent property owners oppose decreased left turn access, or reduced lanes.

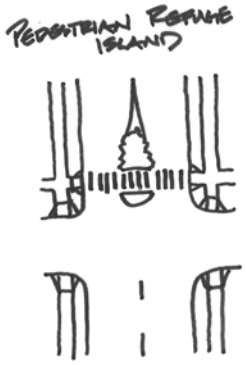
Medians can be found in the following project numbers 3, 9, 14, and 27. For a detailed description of each project, see Section 4.

3. Pedestrian Refuge Island

Pedestrian refuges are raised islands in the center of the street protecting the pedestrian from moving traffic. They allow pedestrians an opportunity to cross one half of the roadway, with a safe place to stop before crossing the second half of the roadway. They are typically constructed at marked crosswalks at a midblock location.

Best used if…

- there is pedestrian crossing demand and traffic volumes result in few gaps for pedestrians to cross the entire street
- there is little demand to make left turns at an intersection, or a left turn pocket is not necessary due to an existing left turn restriction
- the island can be easily accommodated within an existing left turn pocket or center two–way left turn lane
- there are unique circumstances in the surrounding land uses or the shape of the intersection that create the need for the island
- community consensus has been reached regarding the turn restriction.



Don't use if…

- pedestrians can easily cross the street
- there is a large demand for vehicular left turns, as the island would eliminate left turn access
- the roadway is striped with a center line only; that is, there is not a left turn pocket or two–way left turn lane, making the island a potential obstruction in the roadway
- transit or emergency vehicles would be unreasonably impacted.

Gateways

One of the easiest ways to establish a distinct sense of place is to announce town limits to travelers through gateway treatments. This method also tends to slow drivers down as well as alert them to the possibility of pedestrian activity. This Plan recommends low, carved, wooden signs that welcome travelers to Arnold, combined with distinctive landscaping, consistent with the *Arnold Community Plan*. At the south end of town, the gateway sign should be placed at the intersection of Pine Drive and Fir Street.

On the north side of town, the gateway should be landscaped and placed where State Route 4 and Arnold merge. The monument signage shall adhere to the findings of the Caltrans demonstration program for the placement of Gateway Monuments within the highway right-of-ways.

Raised intersection have been used to indicated to unfamiliar passing traffic that they have "arrived" within a community. Raised intersections are usually constructed of concrete. The center of the intersection is raised three inches and gradually slopes down to street level.

Best used if…

- 85% of traffic speeds are greater than 35 mph
- neighborhood consensus favors reducing speeds at key intersections.

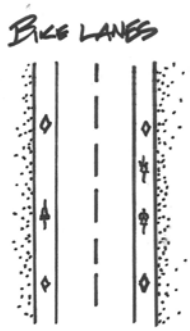
Don't use if…

- buses or emergency vehicles frequently use the street
- drainage and ponding cannot be addressed.

Gateway projects are integrated in project numbers 1 and 25. For a detailed description of these projects, please see Section 4.

Bikeways

A bikeway is a portion of the roadway designated for the preferential or exclusive use of bicyclists by striping, signing, and/or pavement markings. Bicycle lanes provide dedicated space and increase motorist's awareness that bicyclists are welcome and encouraged on roadways. Bicycle lanes also enhance pedestrian safety if a travel lane is removed or travel lanes are narrowed to make space for the bike lane.



Given its beautiful views, cyclists are drawn to State Route 4. A portion of the annual Death Ride, a 129 mile bicycle ride traverses the community of Arnold as cyclists climb the Ebbetts Pass Route. Unfortunately, due to narrow shoulders and the lack of bike lanes, cyclists are forced to ride in the road, creating an undesirable condition for both cyclists and drivers as travel lanes are typically not wide enough for both to share. Within Arnold, the topography, distance, and lack of adequate bicycle facilities prevent most residents from using this alternative mode of transportation.

It has been clear through Community Workshops and Steering Committee Meetings that many of Arnold's residents would prefer not to have Class II bicycle lanes along State Route 4, but would rather retain on street parking. However, bicycle lanes are consistent with the Calaveras County Bicycle Master Plan, Adopted April 2007.

Best used if…

- street is commonly used by bicyclists
- connects existing bicycle lanes or trails, and links important bicycle destinations
- roadway is wide enough to accommodate bike lanes
- street has excess capacity, making it possible to eliminate a general traffic lane for a bike lane.

Don't use if…

- curb–to–curb width is insufficient to stripe bike lanes that meet recommended minimum widths
- street does not readily connect to other bicycle facilities.

Bikeway projects are integrated into many of the projects along the corridor. They can be found in project numbers 2, 4, 5, 6, 10, 11, 12, 13, 17, 19, 20, 22, and 24. For a detailed description of each project refer to Section 4.

What Shape Are We In?

How we shape growth in Arnold is crucial to making our communities healthier, safer and more livable. An important measure of livability is how physically active and healthy people are.

Walkable, bicycle-friendly communities provide opportunities for regular physical activity – which is important in preventing chronic health problems and improving quality of life.

According to a study by the California Center for Public Health Advocacy, diabetes has increased by 67% among California adults, which is linked to a dramatic rise in obesity and physical inactivity in adults.

Current land use patterns, such as large-lot or strip development, lack of through streets or walkways, dead wall space, lack of crosswalks, long blocks, unappealing walks, wide and unshaded streets, wide streets with no medians, and large auto-oriented uses all inhibit walking.

Trails

Trails are non-motorized connectors through neighborhoods. Trails tend to be lengthy, 1000 feet or longer. They often follow their own independent right-of-ways or utility corridors. Some trails also serve as emergency responder connectors. Trails serve as independent alternative transportation systems. Many trails were recommended at Community Workshops to connect many neighborhoods to parks, schools, transit stops, and other common destinations and overcome the restrictions of existing roadways

that could not be retrofitted to accommodate sidewalks.

Trails are the most cost effective of all facilities. Appropriate placement of trails provides essential linkages while minimizing the number of miles of roads needed in neighborhoods, as well as the associated drainage and traffic issues. Trail surfaces can be simple gravel treatments to asphalt or concrete pathways. Trails can also be made of different parallel strips of material, i.e. one for running or walking, another for wheeled movement. Trails should be fully supportive of people of all abilities. When rough or rugged terrain prohibits reasonable trail access suitable alternative transportation routes (streets) will meet the objective.

Best used if…
- limited right-of-way to allow pedestrian facilities
- connects existing bicycle lanes or trails, and links important bicycle destinations

Don't use if…
- terrain is too steep or would require excessive grading
- trail does not readily connect to other pedestrian and bicycle facilities.

Project numbers 2, 4, 6, 10, 11, 12, 13, 17, 19, 22, and 24 integrated trails into the improvement project. For a detailed description of each of these projects, please see Section 4.

Transit

The Calaveras Transit Authority provides public transit in Arnold as well as other communities in Calaveras County. Daily AM and PM service is provided to outlying communities and intermodal transit stations. Transit Route 4 provides service between Arnold, Murphys, and San Andreas. All Calaveras Transit buses are wheelchair accessible. Currently, the entire fleet of transit vehicles is equipped with one bike rack, each carrying a maximum of two bicycles at a time. Rack space is available on a first-come, first-served basis at no additional cost to riders. According to the Calaveras Transit Monthly Operations Report, February 2007, Transit Route 4 had 1,995 passenger trips in January 2007 and 1,911 passenger trips in February. Compared to the other transit routes, having passenger trips ranging from approximately 100 to 160, Transit Route 4 is the most used transit route in the County. According to the Calaveras Transit Staff, ridership in May 2007 was reported to be the "highest in months", with 2,174 passengers.

SECTION 4: PROJECT LIST

Introduction

Section 4 presents the final prioritized project list for improving the livability of Arnold and addressing the walkability deficiencies. The prioritization criteria are primarily based on the proximity to land uses that encourage residents to walk or bike. These projects primarily represent retrofits to existing streets in the older parts of Arnold. This section specifies recommendations for Arnold complements the previous sections that lay out general standards and policies for new and in-fill development.

Prioritization Criteria and Methodology

The prioritization criteria developed for the Arnold Rural Livable Community-Based Mobility Plan are based on land use, ease of construction, project need relative to other facilities, and the desires of the public. Land use is the biggest factor; walking and bicycling facilities are most needed near land uses that residents will choose to get to by walking or bicycling. The following prioritization criteria were used to develop the project rankings for this Plan.

1. Proximity to Village Centers – 7 points

As recommended in previous sections of the Plan and Technical Memorandums found in the Appendix A, Arnold needs to develop "village centers" along its arterial streets and State Route 4. These centers will become major hubs of resident activity and should be easily accessible from nearby homes via walking or bicycling. The assigned point values for proximity to village centers is shown in Table 4-1 Proximity to Village Centers Prioritization Points below. See Figure 4-1 Arnold Village Centers, for areas in the community of Arnold recognized as town squares for planning purposes and prioritization of projects.

Table 4-1 Proximity to Village Centers Prioritization Points

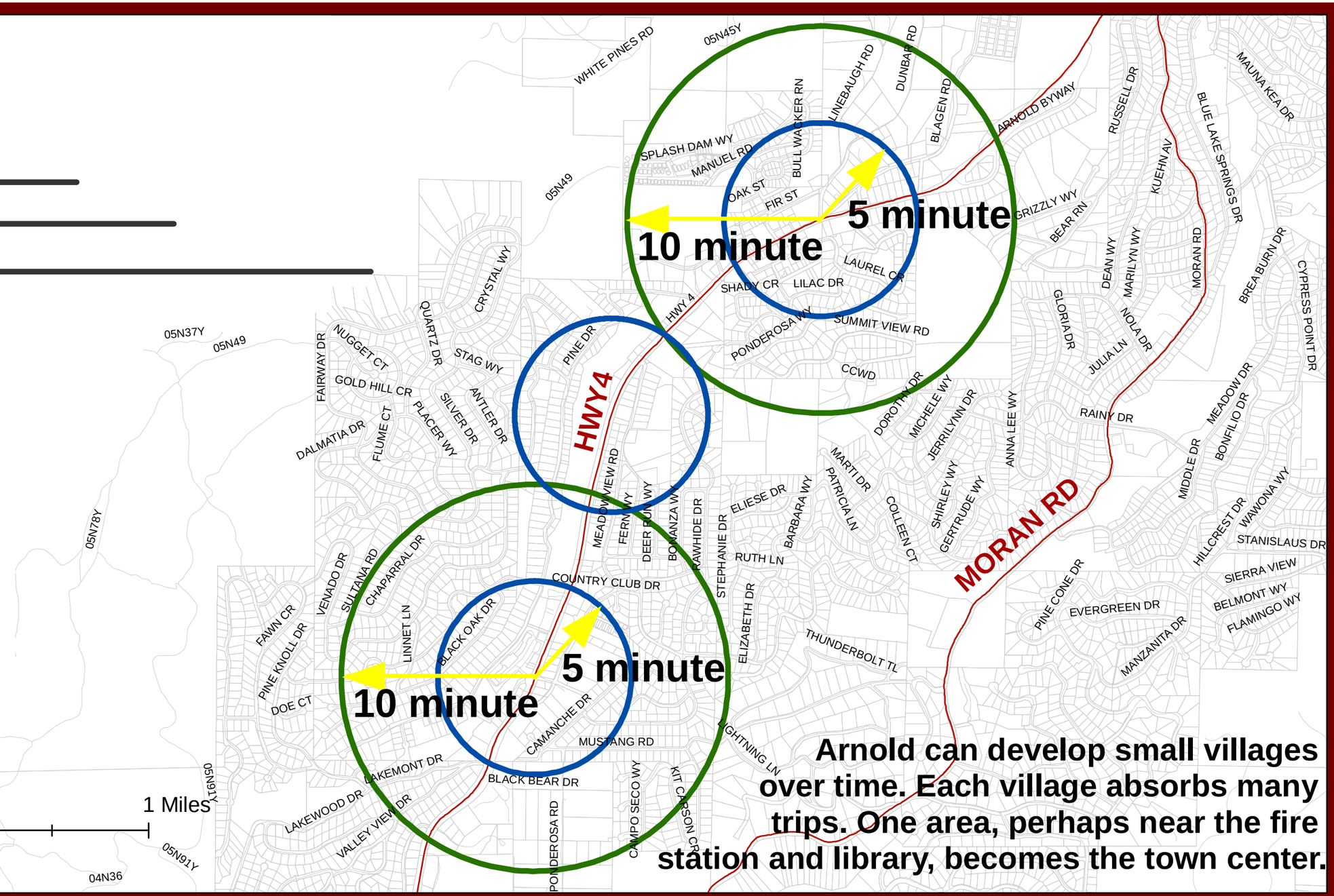
Distance from Project to Nearest Town Square	Points
Less than ¼ mile	7 points
Between ¼ mile and ½ mile	6 points
Between ½ mile and ¾ mile	5 points
Between ¾ mile and 1 mile	4 points
Between 1 mile and 1 ¼ miles	3 points
Between 1 ¼ miles and 1 ½ miles	2 points
Between 1 ½ miles and 1 ¾ miles	1 points
Greater than 1 ¾ miles	0 points

5 minute walk

10 minute walk

20 minute walk

A five minute walk (approximately one-quarter mile) is as easy as a trip by car. A 10-minute walk (one-half mile) is easily achieved and is a good basis for planning a compact village. A 20-minute walk (one mile) is a reasonable distance to walk for exercise when the environment is pleasant.



Arnold can develop small villages over time. Each village absorbs many trips. One area, perhaps near the fire station and library, becomes the town center.

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Fig. 4.1
Arnold Village Centers
Arnold Rural Livable Community-Based Mobility Plan

2. Proximity to Schools — 5 points

It is critical that students be able to easily walk to existing or planned schools. Busing children can be expensive and the unnecessary motor vehicle trips and school area traffic congestion reduce livability and endanger children who do choose to walk and bicycle to school. The assigned point values for proximity to schools is as shown in Table 4-2 Proximity to Schools Prioritization Points below.

Table 4-2 Proximity to Schools Prioritization Points

Distance from Project to Nearest School	Points
Less than ¼ mile	5 points
Between ¼ mile and ½ mile	4 points
Between ½ mile and ¾ mile	3 points
Between ¾ mile and 1 mile	2 points
Between 1 mile and 1 ¼ miles	1 points
Greater than 1 ¼ miles	0 points

3. Ease of construction — 3 points

The cost of a project and the ease of constructing a project weigh heavily on how limited funding should be prioritized. Each project was rated on a scale of 0 to 3 for ease of construction. Simple projects like roadway restriping without the need for physical construction generally received the maximum of 3 points. If a restriping project includes a small amount of reconstruction work, this rating was dropped slightly. For construction projects like sidewalks and trails, varying values were assigned based on the amount of work necessary to build the project. For example, if a curb exists or if flat land is available adjacent to a road for a sidewalk, more points would be given than for a project that requires serious regarding or removal of trees or structures.

4. Need relative to other facilities — 3 points

Each project was rated on a scale of 0 to 3 for three factors related to need. The first factor is the continuity and connectivity of a project. For example, a long continuous bike lane on a collector street that connects several neighborhoods and crosses other collector streets would get a higher rating. Second, if the project is near an existing parallel facility of the same type, it would get a lower "need" score. For example, a situation where there is already a sidewalk on one side of the street, or where a nearby existing or planned bike lane provides a more important connection than the project being rated. The third factor is based on the need for this project relative to existing or future development. (e.g. a bike lane project that is really more needed once development extends a planned through-street would get a low score at present; in addition, it might be possible to have these projects funded by the development.)

5. Public input — 2 points

If a particular project was drawn on a map at a workshop or requested by residents at the public meetings or in other correspondence, then it receives 2 points. Other projects receive 0 points. The total points possible for these prioritization criteria is 20 points.

Prioritized Project List

The lists shown in Tables 4-3 show all of the projects identified and described in this section prioritized per the prioritization criteria shown above. This list also includes the approximate construction cost of each project.

Table 4-3 Prioritized Projects List

Rank	Total Point Rating	Project Location and Description	Total Cost
1	15	Project No. 24 - Blagen Multiple-use Trail	$83,750
2	14	Project No. 19 - Fir Multiple-use Trail	$38,000
3	14	Project No. 23 - Henry Street/Blagen Road Improvements	$677,500
4	14	Project No. 21 - Lilac Drive Roadway Infrastructure Improvements	$160,625
5	13	Project No. 22 - Laurel Circle Multiple-use Trail	$67,250
6	13	Project No. 27 – Laurel Circle Roadway Infrastructure Improvements	$769,375
7	12	Project No. 16 - Cedar Center Roadway Improvements	$1,193,125
8	12	Project No. 17 - Cedar Center Multiple-use Trail	$45,250
9	12	Project No. 18 – Roadway Infrastructure Improvements from Manual Road to Henry Street	$1,057,500
10	11	Project No. 12 - Multi-use Trail	$13,500
11	11	Project No. 14 - SR 4 Roadway Infrastructure Improvements	$1,882,250
12	11	Project No. 20 - Dunbar/Blagen Road Improvements	$591,875
13	11	Project No. 25 - Eastern Gateway Project	$187,500
14	11	Project No. 26 - Mixed-use and Park Space	$125,000
15	10	Project No. 15 - Lilac Drive Roadway Project	$207,500
16	10	Project No. 13 - Boardwalk Multiple-use Trail	$62,500
17	10	Project No. 4 - Meadowmont Way Trail	$29,175
18	10	Project No. 2 - Meadowmont West Trail	$43,850
19	9	Project No. 7 - SR 4 Sidewalk Implementation Project	$56,250
20	9	Project No. 6 - West Country Club Drive Trail	$17,750
21	8	Project No. 11 - Applewood Center Trail	$22,750
22	8	Project No. 10 - Multiple Use Trail	$15,500
23	8	Project No. 9- Meadowview Road Infrastructure Improvements	$2,082,750
24	8	Project No. 3 - Meadowmont Roadway Infrastructure Improvements	$1,137,275
25	7	Project No. 5- East Bound Country Club Drive Roadway Improvements	$155,000
26	6	Project No. 1 - Meadowmont Gateway Project	$187,500
27	3	Project No. 8 - Meadowmont Golf Course Boardwalk	$4,156,250

Recommended Improvement Projects

The following descriptions provide the key recommendations of this plan to improve walking, bicycling, land use policies, intersection, and gateway projects.

Walking, bicycling and livable, healthy streets must be provided the highest possible levels of support. Most of Arnold's growth has occurred in America's well funded, policy driven, post-auto suburban-style development era. This timing produced many ill effects. Transportation in Arnold today is highly car dependent. Many land use, roadway and intersection designs unintentionally overlooked the needs of people-centered activities in favor of auto convenience. Support for automobiles led to significant off-street parking requirements, poor connectivity, and single use zoning.

Many conventional bicycle and pedestrian master plans try to soften these effects and create enclaves where people can go to walk or bicycle. These plans dedicate trails, find safe routes to school, and designate those roadways that can be altered to make basic links to key destinations. This plan takes a more holistic approach and proposes healing the many injuries caused by poor planning and road building practices.

This community healing requires changing many roadway-making, operations, maintenance and funding policies and practices. Revised policies and practices should focus on always providing choice in transportation. Through partnership with land use policies and practices, active transportation options should become preferred modes. Walking and bicycling are viewed as healthier for people and towns. These actions call for changing many existing local, county, regional, state and federal guides.

This plan provides policies for creating new walking and bicycling environments. It establishes a set of public and private responsibilities to make walking and bicycling truly enjoyable. Half-hearted attempts to make walking work are insufficient. Today, and in the future, the basic needs of people-centered mobility must be addressed.

Recommendations in this section include general treatments, such as placing sidewalks and bike lanes on all major roadways. Other recommendations are highly specific, such as making links to specific parks and closing roadways to create public plazas and better alignments of roadways to State Route 4. One example below: Project No. 20 – Dunbar/Blagen Road Improvements will close Blagen Road to convert the right-of-way into a Park/Plaza providing a focus for a village center. Solutions don't have to be expensive or long term. This plan provides many recommendations that can be implemented within one year, bringing substantial new levels of walkability and bicycling to the Community of Arnold.

American Institute of Architects 10 Principles

1. Design on a Human Scale-Compact, pedestrian-friendly communities allow residents to walk to shops, services, cultural resources, and jobs and can reduce traffic congestion and benefit people's health.
2. Provide Choices-People want variety in housing, shopping, recreation, transportation, and employment. Variety creates lively neighborhoods and accommodates residents in different stages of their lives.
3. Encourage Mixed-Use Development-Integrating different land uses and varied building types creates vibrant, pedestrian-friendly and diverse communities.
4. Preserve Urban Centers-Restoring, revitalizing, and infilling urban centers takes advantage of existing streets, services and buildings and avoids the need for new infrastructure. This helps to curb sprawl and promote stability for city neighborhoods.
5. Vary Transportation Options-Giving people the option of walking, biking and using public transit, in addition to driving, reduces traffic congestion, protects the environment and encourages physical activity.
6. Build Vibrant Public Spaces-Citizens need welcoming, well-defined public places to stimulate face-to-face interaction, collectively celebrate and mourn, encourage civic participation, admire public art, and gather for public events.
7. Create a Neighborhood Identity-A "sense of place" gives neighborhoods a unique character, enhances the walking environment, and creates pride in the community.
8. Protect Environmental Resources-A well-designed balance of nature and development preserves natural systems, protects waterways from pollution, reduces air pollution, and protects property values.
9. Conserve Landscapes-Open space, farms, and wildlife habitat are essential for environmental, recreational, and cultural reasons.
10. Design Matters-Design excellence is the foundation of successful and healthy communities.

Project No. 1 - Meadowmont Gateway Project

This project is a proposed gateway project at the intersection of State Route 4 and Fir Drive. At this location a roundabout is the preferred gateway infrastructure choice. The roundabout is proposed along the State Route 4 corridor, so that when traffic enters Arnold they will be forced to reduce their speed due to the change in roadway alignment. This solution will solve the high-speed traffic challenge along State Route 4.

Estimated Cost: $187,500
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Medium-Term

Project No. 2 - Meadowmont West Trail

This project is a multiple-use trail/path that begins along Cedar Lane and runs parallel to the western end of the Meadowmont Center parking lot and Chapel in the Pines, and then terminates when it merges with State Route 4 at the intersection of State Route 4 and the Meadowmont Center Driveway. This multi-use trail is intended to alleviate the connectivity challenges that face the pedestrians and bicyclists between the shopping center and residential areas to the west. It will allow them a safe means of travel as they will be able to avoid the high-speed traffic along State Route 4 and walking on local streets.

Estimated Cost: $43,850
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Medium-Term

Project No. 3 – Meadowmont Roadway Infrastructure Improvements

This project proposes the implementation of several roadway improvements along State Route 4 located between Fir Drive and Country Club Drive. The roadway improvements along this segment will include raised roadway medians, parallel parking spaces, sidewalks, striped crosswalks, and curb enhancements. The raised roadway medians shall be located along State Route 4, separating the east and westbound travel lanes. The medians will be located along State Route 4 and will terminate at three intersections, allowing for vehicles to make left or right-hand turns. Curb enhancements will be located at the following intersections: Meadowmont Center driveway and State Route 4; Meadowmont Way and State Route 4; the Meadowmont Golf Course driveway and State Route 4, and Country Club Drive and State Route 4. There will also be curb extensions located along the eastbound travel land of State Route 4 at the two entry and exit driveways at the commercial site on the south side of the road. Sidewalks will be implemented along the westbound travel lane along State Route 4, beginning at the Meadowmont Center driveway and terminating and the Meadowmont Golf Course driveway. At each intersection along the westbound travel lane, there will also be a striped crosswalk installed. Along the eastbound travel lane of State Route 4, sidewalks will be implemented beginning at the Arnold community sign and extending to the Country Club Drive. At the commercial site on the south side of the road, striped crosswalks will be implemented at the entry and exit driveways. The following roadway infrastructure improvements will be to reduce the pedestrian and bicyclist transportation gaps as they will balance transportation goals along State Route 4, improve highway striping, and enhance pedestrian and bicyclist amenities.

Estimated Cost: $1,137,275
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Long-Term

Project No. 4 – Meadowmont Way Trail

This project proposes to implement a multiple-use trail/path beginning at the curb of Meadowmont Way and State Route 4 and traveling north and terminating at the east end of the Meadow Center Parking lot. In addition, there will be a pedestrian crosswalk at the east side exit/entrance of the Meadow Center Parking lot along Meadowmont Way. This solution will improve the pedestrian and bicycle transportation gaps by providing connectivity between pedestrian/bicycle facilities along State Route 4 and the shopping center. In addition, the path shall provide for a balanced transportation network by enhancing pedestrian and bicycle amenities in the area.

Estimated Cost: $29,175
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Medium-Term

Project No. 5 – East Bound Country Club Drive Roadway Improvements

This project proposes to implement sidewalks along both travel lanes of Country Club Drive. The sidewalks shall terminate where Country Club Drive merges into Meadowview Road and Mewe Court. The following roadway infrastructure improvements will be to reduce the pedestrian and bicyclist transportation gaps as they will balance transportation goals along State Route 4, improve highway striping, and enhance pedestrian and bicyclist amenities.

Estimated Cost: $155,000
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Medium-Term

Project No. 6 – West Country Club Drive Trail

This project proposes a multiple-use trail that begins at the curb extension along the westbound portion of Country Club Drive and extends to Pine Drive where it terminates. This trail will increase the pedestrian and bicycle connectivity and provide a safe means of travel. This solution will improve the pedestrian and bicycle transportation gaps by providing connectivity between pedestrian/bicycle facilities. In addition, the path shall provide for a balanced transportation network by enhancing pedestrian and bicycle amenities in the area.

Estimated Cost: $17,750
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Medium-Term

Project No. 7 – State Route 4 Sidewalk Implementation Project

This project proposes to implement sidewalks along the eastbound travel lane of State Route 4. The sidewalk would begin at the intersection of Country Club Drive and State Route 4 and extend to Sierra Pine Way. The implementation of the sidewalks will provide a safe route for pedestrians to travel. This project will enhance the pedestrian and bicycle amenities in Arnold.

Estimated Cost: $56,250
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Medium-Term

Project No. 8 – Meadowmont Golf Course Boardwalk

This project proposes to install a boardwalk that will run parallel to the westbound travel lane of State Route 4, located on the Meadowmont Golf Course. A boardwalk is a wooden path that is typically raised above the ground that provides a walking path for pedestrians and bicycles. They are often found on beaches, wetlands or other sensitive environments. The boardwalk that is proposed along the Meadowmont Golf Course will consist of a pathway that will have railings on both sides of the walkway, which will provide an enclosed area for pedestrians so they cannot fall from the boardwalk as well as provide a hand railing for those that need assistance when walking. In addition, there will be kiosks scattered along the boardwalk. The kiosks will be small, expanded areas that will provide benches and shade for pedestrians to sit and rest. This project will enhance pedestrian amenities as well as further balancing the transportation network of Arnold.

Estimated Cost: $4,156,250
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Long-Term

Project No. 9 – Meadowview Road Infrastructure Improvements

This project proposes to implement various roadway infrastructure improvements along State Route 4 from the intersection of Sierra Pine Way to Meadowview Road. The roadway improvements along this section shall include raised roadway medians, parking spaces, sidewalks, and striped crosswalks. The raised roadway medians will begin at Sierra Pine Way, continue along State Route 4, and terminate at the entrance to the proposed parking area. The sidewalk will be installed along the eastbound travel lane of State Route 4, beginning at the intersection of Country Club Drive and State Route 4 and extend to Applewood Center. After Applewood Center, the sidewalk resumes along the eastbound travel of State Route 4, terminating at Adler Street. Striped crosswalks will be implemented across State Route 4 at the eastern portion Applewood Center Plaza and at the entry/exit driveway. Diagonal parking spaces shall be implemented along the westbound travel lane of State Route 4. These parking spaces shall be adjacent to the proposed boardwalk (Project No. 8). The implementation of the roadway infrastructure improvements will provide a safe route for pedestrians and bicyclists to travel. This project will enhance the pedestrian and bicycle amenities in Arnold.

Estimated Cost: $2,082,750
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Long-Term

Project No. 10 – Multiple Use Trail

This project proposes a multiple-use trail from State Route 4 to Meadowview Road. This trail will begin along State Route 4 and travel south till it reaches Meadowview Road. This trail will provide a safe passage for both pedestrians and bikers. The project will improve the transportation gaps by enhancing connectivity as well as pedestrian and bicycle amenities.

Estimated Cost: $15,500
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Medium-Term

Florida Department of Transportation-Design for Livable Communities Principles

Safety of pedestrians, bicyclists, motorists, and public transit users
- Balancing community values and mobility needs
- Efficient use of energy resources
- Protection of the natural and manmade environment
- Coordinated land use and transportation planning
- Local and state economic development goals
- Complementing and enhancing existing standards, systems, and processes

Project No. 11 – Applewood Center Trail

This project proposes a multiple-use trail that runs parallel to the Applewood Center Plaza Parking Lot and State Route 4. This multi-use trail shall provide a safe route for pedestrians and bicyclists to travel across this busy plaza area. The trail shall improve the pedestrian and bicycle transportation gaps, as more amenities will be provided for recreation and safe travel. The trail will reduce the conflicting transportation goals throughout Arnold by providing a more balanced transportation network and provide connectivity.

Estimated Cost: $22,750
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Medium-Term

Project No. 12 – Multiple-use Trail

This project is a multiple-use trail that is proposed State Route 4 extending to Meadowview Road. This multi-use trail will provide a safe route to travel for both pedestrians and bicyclists alike. This trail, along with the other proposed multiple-use trails, shall improve the connectivity between destinations in Arnold and will enable pedestrians and cyclists an alternative route to the high-speed traffic lanes along State Route 4.

Estimated Cost: $13,500
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Medium-Term

Project No. 13 – Boardwalk Multiple-use Trail

This project proposes to install a multiple-use trail, which would connect with the east end of the Boardwalk (Project No. 8) on the Meadowmont Golf Course. The multi-use trail would begin at the Boardwalk and extend through the golf course until it reached Pine Drive. At Pine Drive the trail would travel east until it reached Oak Court, where it would connect at the intersection of Oak Court and Oak Circle. This trail would provide connectivity for pedestrians and bicyclists whom prefer to use an alternate route to the State Route 4 corridor and high-speed traffic. The trail would balance the existing roadway network by providing more pedestrian and bicycle amenities amongst the existing vehicle amenities and enhance connectivity.

Estimated Cost: $62,500
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Medium-Term

Local Government Commission- Ahwahnee Principles for Livable Communities

1. All planning should be in the form of complete and integrated communities containing housing, shops, work places, schools, parks and civic facilities essential to the daily life of the residents.
2. Community size should be designed so that housing, jobs, daily needs and other activities are within easy walking distance of each other.
3. As many activities as possible should be located within easy walking distance of transit stops.
4. A community should contain a diversity of housing types to enable citizens from a wide range of economic levels and age groups to live within its boundaries.
5. Businesses within the community should provide a range of job types for the community's residents.
6. The location and character of the community should be consistent with a larger transit network.
7. The community should have a center focus that combines commercial, civic, cultural and recreational uses.
8. The community should contain an ample supply of specialized open space in the form of squares, greens and parks whose frequent use is encouraged through placement and design.
9. Public spaces should be designed to encourage the attention and presence of people at all hours of the day and night.
10. Each community or cluster of communities should have a well-defined edge, such as agricultural greenbelts or wildlife corridors, permanently protected from development.
11. Streets, pedestrian paths and bike paths should contribute to a system of fully-connected and interesting routes to all destinations. Their design should encourage pedestrian and bicycle use by being small and spatially defined by buildings, trees and lighting; and by discouraging high speed traffic.
12. Wherever possible, the natural terrain, drainage and vegetation of the community should be preserved with superior examples contained within parks or greenbelts.
13. The community design should help conserve resources and minimize waste.
14. Communities should provide for the efficient use of water through the use of natural drainage, drought tolerant landscaping and recycling.
15. The street orientation, the placement of buildings and the use of shading should contribute to the energy efficiency of the community.

Project No. 14 – State Route 4 Roadway Infrastructure Improvements

This project proposes to implement various roadway infrastructure improvements along State Route 4 between Meadowview Road and Manuel Road. The roadway improvements will include roadway medians, sidewalks, curb extensions, and striped crosswalks. The roadway improvements would improve both vehicular and pedestrian/bicycle transportation gaps by providing a more balanced transportation network and, thus reducing the conflicting transportation goals in Arnold. The improvements will increase the bicycle and pedestrian amenities throughout town. The raised medians are intended to reduce the high-speed traffic along State Route 4.

Estimated Cost: $1,882,250
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Long-Term

Project No. 15 – Lilac Drive Roadway Project

This project proposes to implement a new roadway beginning at State Route 4 and Lilac Drive and continuing to Lilac Drive. This roadway project would pave the existing road, making it more convenient for pedestrians, bicyclists, and vehicles to travel. These roadway improvements will bridge the existing transportation gaps by providing more vehicular, pedestrian, and bicycle amenities.

Estimated Cost: $207,500
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Medium-Term

Project No. 16 – Cedar Center Roadway Improvements

This project proposes to implement new roadway infrastructure along Oak Circle, Oak Court running parallel to Cedar Center, and Sequoia Street. The infrastructure improvements will include striped crosswalks, sidewalks, and curb extensions. Sidewalks will be implemented along Oak Circle, the south portion of Oak Court, and the both sides of Sequoia Street. Two striped crosswalks will be implemented on the north side of Sequoia Street as well as at the intersections of Oak Court and State Route 4 and another at Sequoia Street and State Route 4. Curb extensions will also be implemented. They are proposed at the intersections of Oak Circle and State Route 4 as well as Sequoia Street and State Route 4. These roadway improvements will reduce traffic speeds along State Route 4. In addition, it will provide bicycle and pedestrian amenities and increase the connectivity throughout Arnold.

Estimated Cost: $1,193,125
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Long-Term

Project No. 17 – Cedar Center Multiple-use Trail

This project proposes to implement a multiple use trail along the backside of the Mountain Chronicle and the Cedar Center. The trail will begin by connecting with the multiple-use Oak Court trail and extending to the sidewalk along Sequoia Street. This trail will allow pedestrians and bicyclists to bypass vehicles that are entering and exiting Cedar Center Plaza. This will allow pedestrians and cyclists a safe route to travel. This trail will provide connectivity for pedestrian and bicyclists to travel from one destination to the next without having to travel along State Route 4 with the high-speed traffic.

Estimated Cost: $45,250
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Medium-Term

Project No. 18 – Roadway Infrastructure Improvements from Manual Road to Henry Street

This project proposes to implement new roadway infrastructure improvements along State Route 4 between the roadway segment of Manual Road and Henry Street. The roadway improvements will include striped crosswalks, sidewalks, raised medians, and curb extensions. Raised medians will begin at the intersection of State Route 4 and Manual Road and continue to State Route 4 and Blagen. The medians will terminate at each intersection along State Route 4, allowing vehicles to make right and left hand turns. Throughout this roadway segment there will be four striped crosswalks implemented. The first across State Route 4 at Manual Road, one at Dunbar Road parallel to State Route 4 , another across State Route 4 prior to Henry Street, and the fourth along Henry Street parallel to State Route 4. In addition, curb extensions will be placed at the intersection of Dunbar Road and S State Route 4 as well as the intersection of Henry Street and State Route 4. Sidewalks will be implemented along both the west and eastbound travel lanes of State Route 4. These roadway improvements will help reduce the existing conflicting transportation goals by implementing more pedestrian and bicycle amenities. In addition, the raised medians and sidewalks will reduce the high-speed traffic by giving drivers the illusion that the travel lanes are narrow and they have less space to travel in.

Estimated Cost: $1,057,500
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Long-Term

Project No. 19 – Fir Multiple-use Trail

This project proposes to implement a new multiple-use trail along Fir Street. The multi-use trail will begin at the intersection of Manuel Road and Fir Street and continue east, where it will terminate at the intersection of Dunbar Road and Fir Street. The multiple-use trail will include a striped crosswalk at the driveway of the Secure Self Storage lot in order to provide safe crossing for pedestrians and bicyclists alike. This trail will provide connectivity throughout Arnold for pedestrians and bicycles and thus reduce the conflicting transportation goals by providing more amenities.

Estimated Cost: $38,000
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Medium-Term

Project No. 20 – Dunbar/Blagen Road Improvements

In conjunction with Project No. 18 and 23, proposes many infrastructure improvements along Blagen Road and the corner of Dunbar Road. At the intersection of these two streets, it is proposed that Blagen Road will no longer provide vehicle entry, but instead will become an emergency exit, allowing only emergency vehicles to pass through. As Blagen Road will become a one-way road, this will allow this area to be converted into a Park/Plaza providing a community gathering area. In addition to the community gathering area, there will also be a parking lot provided for residents and tourists to park and walk to either the community area or other portions of "Downtown" Arnold. Parking will be accessed through Blagen Road and vehicles can access State Route 4 by entering Henry Street. This project will bridge the gap between the existing transportation gaps facing the vehicles and pedestrians/bicycles throughout Arnold. This project will provide additional parking for the residents and tourists in Arnold as well as providing pedestrian and bicycle amenities so that some can chose not to drive and safely use other transportation means. This project will also provide a focused village center, giving Arnold a sense of place.

Estimated Cost: $591,875
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Long-Term

Project No. 21 – Lilac Drive Roadway Infrastructure Improvements

This project proposes to implement sidewalks along the existing Lilac Drive. The sidewalk will connect with the proposed sidewalk from project number 18. It will begin at the intersection of State Route 4 and Lilac Circle and extend until Laurel Circle. The proposed sidewalk will provide a safe travel route for pedestrians wishing to walk to the Downtown area of Arnold. This project will provide solutions to the conflicting transportation goals by providing more pedestrian and bicycle amenities. These sidewalks will also help reduce high-speed traffic by giving drivers the illusion that the travel lanes are narrower and they are confined.

Estimated Cost: $160,625
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Medium-Term

Project No. 22 – Laurel Circle Multiple-use Trail

This project proposes to implement a multiple-use trail that starts at the intersection of Lilac Drive and Laurel Circle and extends south. This multi-use trail will provide recreational activities for pedestrians and bicyclists alike. The trail will provide connectivity throughout Arnold, providing an alternative route from one destination to the next. This path will allow residents to travel by other means of transportation other than their personal vehicles.

Estimated Cost: $67,250
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Medium-Term

Project No. 23 – Henry Street/Blagen Road Improvements

This project proposes to implement new roadway improvements along Blagen Road and Henry Street. The roadway improvements will include sidewalks, striped crosswalks, and curb extensions. The sidewalks will be implemented along both travel lanes of Henry and Blagen Road. Curb extensions will be implemented where Henry Street and Blagen Road merge together. Throughout this roadway segment there will be three striped crosswalks implemented for pedestrian safety. Currently, there exists a Class III Bicycle Route along Blagen Road. These roadway improvements provide amenities for pedestrians and cyclists so that they can travel safely throughout town from one destination to the next. These improvements will help to reduce the conflicting transportation goals that currently exist by providing a more balanced transportation network.

Estimated Cost: $677,500
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Long-Term

Project No. 24 – Blagen Multiple-use Trail

This project proposes to implement a multiple-use trail north of Blagen Road. This trail will provide recreational activities for both pedestrians and bicyclists alike. This trail will provide bicycle and pedestrian amenities that help to connect Blagen Road to the Hazel Fischer Elementary School. This trail helps to provide an overall balanced transportation network in Arnold by giving residents other transportation alternatives, other than their personal vehicles.

Estimated Cost: $83,750
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Medium-Term

Project No. 25 – Eastern Gateway Project

This project proposes to implement a gateway improvement project at the eastern portion of Arnold along State Route 4. The proposed gateway improvement will be a raised intersection, alerting local and regional traffic that they have entered a community and need to reduce their traveling speed. This project will alleviate the existing transportation gaps in Arnold by reducing high-speed traffic along State Route 4 and by establishing a sense of place.

Estimated Cost: $187,500
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Medium-Term

Project No. 26 – Mixed use and Park Space

This project is intended to encourage mix-use development and park space along State Route 4, south of Blagen Road. This area will be designated as one of the Village Centers in Arnold, providing residents and tourists with a place to gather and be social. As this area is near adjacent to the Eastern Gateway Project, it is intended to be an attractive location to encourage tourists to visit Arnold. This project will help reduce the conflicting transportation goals in Arnold. The project will provide a focused village center, providing amenities for pedestrians and bicycles, and parking for vehicles.

Estimated Cost: $125,000
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Medium-Term

Project No. 27 – Laurel Circle Roadway Infrastructure Improvements

This project proposes to implement new roadway improvements along State Route 4 from White Pines Road to the northeastern portion of town. It is proposed that the roadway improvements will terminate at the proposed Eastern Gateway Project (Project No. 25). The roadway improvements will include sidewalks and raised roadway medians. The sidewalks will be implemented along both travel lanes State Route 4. There will be one proposed raised median installed which will begin at Henry Street and terminate at the next intersection. These roadway improvements provide amenities for pedestrians and cyclists so that they can travel safely throughout town from one destination to the next. These improvements will help to reduce the conflicting transportation goals that currently exist by providing a more balanced transportation network.

Estimated Cost: $769,375
Potential Lead Agency: Calaveras County
Timeframe for Implementation: Long-Term

Recommended Improvement for Land Use

The following descriptions provide the key recommendations of this plan to improve walking, bicycling, land use policies, intersection, and gateway projects.

Village Oasis – Revitalizing State Route 4 Buildings and Trees Slow Speeders, Reduce Noise

Two issues identified in the Community Outreach were the significant levels of speeding and traffic noise on State Route 4. These factors are discomforting to pedestrians, and they detract from the ability to conduct business near the road. By placing 3-4 story buildings and tall trees within 20 feet of State Route 4, it is reasonable to anticipate speeds reduced to the 25-30 mph range.

Walking comfort will also be enhanced by awnings, canopies, colonnades and other architectural and landscape features that create shade and protection from wind and other harsh weather. Well lighted and active streets will also allow State Route 4 to become a prominent promenade street during evening hours.

Visual stimulus is important. Proper placement of buildings, trees and other streetscape elements gives pedestrians a sense that their steps are leading somewhere. In contrast, car-oriented design, with large building setbacks and "gray" field parking gives motorists a sense of progress, but only at high speeds.

Village-Style Development

The Figure 4-2 Vehicle Oriented Development versus Livable Community Development illustration below shows how a typical section of roadway like State Route 4 may be converted over time. Although there is physical space for walking in the top scene, the drawing below has a well developed and engaging walking network and is more secure, due to near proximity of liner buildings. It is more convenient with many stores relating to the needs of customers. There is an efficient way to move about the organized space. And now shade, benches and other services welcome pedestrians. Village-style development patterns will be needed to bring about high levels of walking and less auto dependency in Arnold.

Figure 4-2 Vehicle Oriented Development versus Livable Community Development

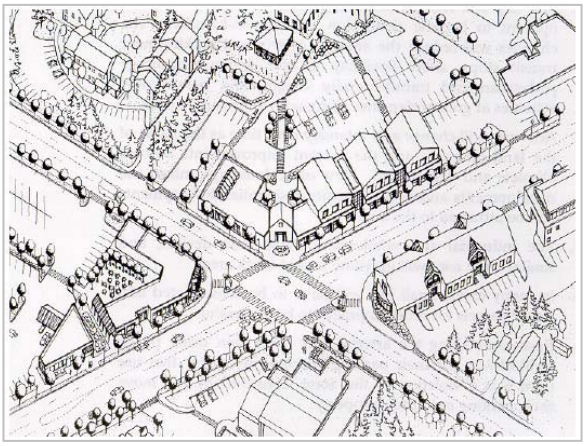
Walking and bicycling are heavily dependent on proximity to proper village style development. Successful villages are composites of small to large clusters of mixed uses including civic, retail, office and residential uses. Over time the Calaveras County and the Community of Arnold should alter State Route 4 Corridor as follows.

- Convert auto-dominated shopping plazas into mixed-use villages.
- Develop new model village(s) to demonstrate financial viability.
- Develop sense of place.
- Create public spaces.
- Create compact Main Street districts.
- Provide higher density mixed-income.
- Provide small village civic uses.
- Maximize use of existing infrastructure.
- Provide municipal parking and discourage private and single use parking.
- Locate parking lots behind buildings.
- Reduce commercial driveways and convert them to public streets when appropriate.
- Maximize on-street parking.

Community of Villages

People will not walk in communities when the majority of primary commercial roads make walking experiences unpleasant. Today commercial development along State Route 4 is thin and linear with large gaps of vacant parcels between village centers at each end of the planning area. Mixed uses have been discouraged until recently. Current strip and plaza style development favors auto travel, and penalizes other transportation choices.

- In the future, Arnold should ensure ongoing efforts to support the Calaveras County General Plan Update by:
- Establishing a town center and a collection of small scale hamlet style centers along the State Route 4 Corridor.
- Developing a community vision plan outlining where potential walking scale villages will be centered.



- Developing and enhancing opportunities for developers to invest in new town center and other hamlet size village areas.
- Providing substantial public investments at the proposed Village Center and Public Square at Blagen and Dunbar.
- Providing quality streetscaping and access controls, making State Route 4 into attractive boulevard street with on-street parking.

Village Locations Spaced One-Half Mile

Calaveras County and the Community of Arnold should convert its primary intersections, such as Dunbar Road and State Route 4 into a village center, with buildings located close to the street. The best buildings should be on the corner, visually drawing people to this attractive town center and proposed town square from the closure of Blagen Road.

Figure 4-1 Village Centers map suggests the eventual development of several distinct nodes. Most of these should be small hamlet style development. One true town center should be developed. The following guidelines for villages
should be used:

- Village nodes are most easily centered on prime investments, such as the new fire station, or library. Incentives should be given to developers who provide moderate to high density mixed use development. Low density, or singular land use development shall be strongly discouraged.
- Land swaps should be encouraged in order to concentrate walking scale villages in appropriate locations.
- Parking lots will be convenient, easy to find and available to all land uses. Developers should be permitted to build with little or no parking requirement. As an alternative they will pay into a trust for the construction of parking lots and livable community features.
- Each village center should be clearly identified through variations in streetscaping, pennants, street furniture, buildings and other architectural detailing.

SECTION 5: IMPLEMENTATION AND ADMINISTRATION

Introduction

This Section will delineate the next steps of action necessary to implement this Arnold Rural Livable Community-Based Mobility Plan and the objectives put forth in the Livability Improvements Program of Section 2. This includes development of a Village Center Downtown Design Site Plan, a funding strategy and sources of funding assistance, further streetscape design, additional studies to complete, and finally, engineering and construction preparations.

Step 1: Prepare Program EIR for Arnold Rural Livable Community-Based Mobility Plan

California Environmental Quality Act (CEQA) requires the plan be assessed for potential environmental impacts. The plan calls for several specific plans for various existing streets and State Route 4 corridor within the Arnold Planning Area and the adoption of a Capital Improvements Program to facilitate the implementation of recommended improvements. Calaveras County will be the "Lead Agency" in regard to CEQA documentation for the plan. Calaveras Council of Governments has initiated the plan and is considered the "applicant" on behalf of the County.

There are several types of Environmental Impact Reports (EIR) designated under the State CEQA Guidelines. It is recommended a Program EIR be prepared for the plan pursuant to Section 15168 of the guidelines. A Program EIR is typically prepared for projects which encompass a series of chronological actions that can be characterized as one large project. A Program EIR addresses the logical parts in a chain of contemplated actions. The proposed plan encompasses a four mile transportation corridor and consists of a number of individual street and trail improvement projects that are related geographically (within the Arnold Planning Area) and are anticipated to have similar environmental effects. The improvements are expected to be implemented over a 20-year period.

The advantages of using a Program EIR include the ability to evaluate the overall effects of the entire series of proposed actions, and thereby provide a more comprehensive consideration of environmental impacts. A Program EIR assessment is conducted on a broader, less specific basis than a Project EIR. A Project EIR examines the impacts of individual project design details that are not available at this stage in the planning process. A Program EIR will also allow Calaveras County to consider the program wide mitigation measures at an early stage in the planning process.

Step 2: Adpot the Arnold Rural Livable Community-Based Mobility Plan

The first step to implementing this Plan (ARLCBMP) is the acceptance of the plan by Arnold Advisory Council (Steering Committee), Calaveras Council of Governments (CCOG) and recommending the prefered plan to

Calaveras County Planning Commission. The Planning Commission shall conduct public hearings and develop a recommendation for the adoption of the Arnold Rural Livable Community-Based Mobility Plan. The Calaveras County Board of Supervisors will consider the recommendations fowarded and make decision on final adopton. Once the ARLCBMP is adopted, these groups and agencies will have a foundational document that can be readily utilized in applying for and obtaining grants to take the remaining steps in implementing the Plan after the proper Environmental Review.

Step 3: Apply for Grants to Fund the Implementation of Plan

CCOG, and Calaveras County, should apply for grants to fund the implementation of the plan and seek funding from local sources. The grant team will need to identify specific funding opportunities, coordinate specific grants to appropriate projects, and complete grant applications within the required timeframe as discussed in Section 6.

Step 4: Develop a Funding Strategy

The Calaveras County Planning Department, in cooperation with the Calaveras Council of Governments, the County Department of Transportation, and the County Board of Supervisors, should begin to consider possible funding streams for the capital improvements outlined in this Plan and incorporate into the County Capital Improvement Program. Earmarking funds today will establish a base of matching funds for grants in the future.

Step 5: Design & Engineering

Based on the prioritization of the projects identified in the plan County staff should prepare detailed engineering design plans for the improvements envisioned for Arnold. A phased approach is recommended for improvements that allows for staggered funding cycles and coordination with other public improvements projects, like the Calaveras County Pedestrian and Bicycle Master Plan Projects.

"Implementation Measure 17A-2: encourage and support the formation of a Park and Recreation District."

Source: Open Space Element of the Arnold Community Plan, December, 1998

Step 6: Indivdual Project Environmental Review and Permitting

The purpose of a Program EIR recommended in "Step 1" is to identify any additional environmental studies or analysis that may be required during the project-level CEQA review. This additional review may occur through several different methods, including preparation of a Tiered Negative Declaration, Supplemental EIR, or addendum to the Program EIR. If an individual project would have no effects beyond those analyzed in the Program EIR, no further CEQA documentation would be required. It is the Lead Agency's responsibility to determine the type and extent of subsequent environmental review required for each individual project. Caltrans and Calaveras County should begin applying for permits and undergoing environmental review during the design and engineering phase, as soon as they have been determined. This will allow a resiliency in both processes: the review will consider all of the potential impacts and designs will have potential to change based on review. Costs associated with environmental review vary based on the scope of work and permits required.

Most of the improvements will require the issuance encroachment permits from Caltrans since many projects are associated with State Route 4. More information on Encroachment Permits can be found at (http://www.dot.ca.gov/hq/traffops/developserv/permits/). Other local, State or federal permits may be required from such agencies as; the California Department of Fish and Game, Regional Water Quality Control Board, and the US Army Corp of Engineers.

Step 7: Negotiations

As discussed in a previous sections, once the improvements proposed in this plan can be cross-checked against an authoritative documentation of ownership, negotiations can begin around controversial subjects like parking, public access, and right-of-way acquisition. The CCOG and County Planning Department, again working closely with the County Board of Supervisors, will need to develop a plan of action that identifies both the limits of public improvements and places where public and private cooperation are desired, as well as a range of potential persuasive strategies. A clear, articulate vision of an integrated program of proposed public improvements, especially in graphic form, as discussed above, would be helpful in this process.

Step 8: Construction

Once all of the previous seven (7) steps have taken place, the construction documents will be put out for bid and installation of public improvements can begin.

Community Plans are a part of the County general Plan, although contained in a separate published booklet. Community Plan areas are designed for the areas surrounding and including the larger towns in the Couty where the greatest concentrations of single family, multiple family, commercial and industrial land uses are found.

Source: Land Use Element of the Calaveras County General Plan, December 1996

SECTION 6: FUNDING

Introduction

In implementing the Arnold Rural Livable Community-Based Mobility Plan, it will be essential to develop long term funding strategies to design, construct, and maintain the improvements envisioned in this Plan.

The primary purpose of this section is to identify and briefly describe potential funding Sources and financing vehicles for the public costs associated with implementation of the Improvement Program recommended in this Plan. It seeks to identify the most likely funding sources to pursue for the project. Much of the information presented in this section is based in part on discussions with representatives of the County, Caltrans, and CCOG.

Keeping track of potential funding sources is a full time job. Many counties retain full time staffs for this function. There are literally thousands of potential sources. There are hundreds of publications and web sites for this purpose, but in the end it takes time and perseverance. Each source has different requirements for the activity, matching funds, application procedures, qualifying criteria and so forth. Many of these funding programs are undergoing constant changes in their rules and guidelines. In some cases this means that even the participating lenders are not familiar with the current rules and must be guided through the process. The funding sources described in this section are intended as suggestions. Obviously, an ongoing effort will need to be made to seek out and apply for various grants and loans as implementation proceeds.

Applications for most grant programs would need to be submitted by the County, CCOG or a non-profit corporation. Utilizing any of the financing vehicles for local funding would require working through the County to set up the financing vehicle, particularly for long-term maintenance. In most cases additional planning would be required to establish assessment district boundaries or conduct a nexus analysis to impose fees to cover ongoing maintenance expenses. Table 6-1 presents a summary of the salient characteristics of each funding source and the agencies administering these funds.

Table 6-1: Potential Funding Sources

Key Characteristics of Potential Funding Sources for Arnold Rural Livable Community Based Mobility Plan				
Agency / Program	**Planning Only**	**Focus on Bike/Ped**	**Funding Available**	**Next Round**
A. CCOG Programs				
RSTP-Special Project			$100,000	Annual
TE- Regional		X	$2 million	2010
TDA-bike funds		X	$50,000	Annual
Transportation Development Act (TDA) Article 3		X	2% of total TDA	Jan 2009

Key Characteristics of Potential Funding Sources for Arnold Rural Livable Community Based Mobility Plan				
B. Caltrans Programs				
STIP			Fully Committed	Cyclical
SHOPP			Fully Committed	Cyclical
TE-Inter-Regional		X	Non Stated	July 2009
Safe Routes to School		X	$1 Million	October 2009
Bicycle Transportation Account		X	$1.25 Million	November 2009
Environmental Justice Planning Grants	X		$250,000	January 2009
CBTP Grants	X		$300,000	October 2009
Environmental Enhancement and Mitigation Program		X	$250,000	Annual
C. State Funding				
Environmental Enhancement and Mitigation Program		X	$10 million statewide	Nov 2009
Petroleum Violation Escrow Account		X	$5 million	Ongoing
Office of Traffic and Safety Grants		X	Varies	Jan. 31, 2009
D. State Department of Public Resources				
Habitat Conservation Fund Grant Program		X	$2 million	October 1, 2009
E. State Treasure Programs				
Sustainable Communities Grants			$350,000	Oct. 2008 or April 2008
F. State Housing and Community Development Programs				
CDBG- Economic Development			$500,000	Ongoing
CDBG-P/TA	X		$35,000	May 2009
G. Federal Programs				
USDA-RBEG			$200,000	Dec 2009
Hazardous Elimination Safety (HES) Program		X	$10 - $16 million	Annual
Transportation and Community and System Preservation Pilot Program	X		$61.25 million	April 2009
Land & Water Conservation Fund (LWCF)		X	Unknown at this time	May 2009
SAFETEA-LU		X	$250 million	
SAFETEA-LU: Congestion Mitigation and Air Quality Improvement Program		X	$8.6 billion	2009
SAFETEA-LU: Recreational Trails		X	$370 million	2009
H. Private Funding Programs				
Foundations			Varies	Ongoing
I. Local Financing Vehicles				
Development Impact Fees			Varies	Ongoing
Benefit Assessments			Varies	Ongoing
Mello Roos (CSD)			Varies	Ongoing
Marks –Ross Bonding Pooling Authority			Varies	Ongoing
BID			Varies	Ongoing
Mitigation/Exaction			Varies	Ongoing

A. CCOG

1. State Transportation Improvement Program (STIP) Funds

The STIP is the source of the majority of transportation related funding within Calaveras County. There is significant backlog of major projects that are yet to be funded. Even though Prop 1B,in 2007, was approved which provided $20 billion transportation bond funds, this could cover some capital costs in the County in future years and free-up some funds for other projects.

2. Regional Surface Transportation Program Funds (RSTP)

Most of the CCOG share of the RSTP funds is passed through to the County and cities on a formula basis.

3. Transportation Development Act (TDA) Funds.

CCOG awards funding each year from TDA funds for bike and pedestrian projects. These funds can be used toward matching fund requirements.

B. Caltrans Programs

1. State Highway Operations and Protection Plan (SHOPP)

The SHOPP is administered by Caltrans. Numerous significant major projects have already been identified. Based on preliminary discussions with Caltrans staff, it is possible but unlikely that the Arnold Rural Livable Community-Based Mobility Plan project would be funded through this program.

2. Transportation Enhancement (TE) Program

This is a reimbursable capital-improvement program. Projects must comply with federal environmental requirements and other federal regulations, including those for considering disadvantaged business enterprises in consultant selection and for paying prevailing wages during construction. Transportation Enhancement activities must have a direct relationship – by function, proximity or impact – to the surface transportation system. Activities must be over and above normal projects, including mitigation. Regional TE funds are awarded by CCOG. All of the recent round of funding has been awarded. The next round of funding is not expected until 2010.

3. Caltrans-Safe Routes to School (SR2S)

Established in 1999. Caltrans, in consultation with the California Highway Patrol (CHP), makes grants available to local governmental agencies under the program based upon the results of a statewide competition. The goals of the program are to reduce injuries and fatalities to school children and to encourage increased walking and bicycling among students. The program achieves these goals by constructing facilities that enhance the safety for pedestrians and bicyclists. By enhancing the safety of the pathways, trails, sidewalks, and crossings, the likelihood of attracting and encouraging additional students to walk and bike increases. Funds are awarded annually, and applications are solicited in October.

4. Caltrans-Bicycle Transportation Account (BTA)

The Bicycle Transportation Account (BTA) provides state funds for city and county projects that improve safety and convenience for bicycle commuters. To be eligible for BTA funds, a city or county must prepare and adopt a Bicycle Transportation Plan (BTP) that complies with Streets and Highways Code Section 891.2. CCOG prepares this plan, and BTP adoption establishes eligibility for five consecutive BTA funding cycles. Funds are awarded annually, and applications are solicited annually (in October) and are limited to a maximum of $1,250,000. Applications for 2009/10 BTA funds are due to Caltrans Districts by December 1, 2008.

5. Caltrans Environmental Justice Grants for Planning.

The purpose of the Environmental Justice Grants is to promote more public involvement by diverse and under-served low-income and minority communities in the planning for transportation projects to prevent or mitigate disproportionate, negative impacts while improving their mobility, access to services, equity, affordable housing and economic opportunities. Grants are for planning purposes. The maximum grant is $250,000 with a 10% local match can be in-kind contributions. The annual application process is in October.

6. Caltrans Safety Program

These funds are disbursed by Caltrans HQ in Sacramento. They are more difficult to qualify for and generally require a demonstrated record of accidents.

7. Caltrans Community-Based Transportation Planning (CBTP)

The purpose of this grant program is to fund coordinated transportation and land use planning projects that encourage community involvement and partnership. Projects should support livable community concepts and promote community identity and quality of life. Grants are for planning. A maximum grant is $300,000 with a local match requirement of 20% (10% of which is in kind). The annual application process is in October.

8. Environmental Enhancement and Mitigation Program

Caltrans has established a state fund called the Environmental Enhancement and Mitigation Program to fund beautifcation improvements to roadsides to mitigate the effects of transportation projects. Typical grants can range from $200,000 to $250,000 and up to a 25% local match is usually required.

9.Office of Traffic Safety (OTS) Programs

The Office of Traffic Safety's mission is to obtain and effectively administer traffic safety grant funds to reduce deaths, injuries and economic losses resulting from traffic related collisions. Each October - November, OTS mails Requests for Concept Papers to more than 3,000 eligible agencies outlining the opportunity to participate in the program and the requirements to compete for available funds. OTS grants touch as many state and local agencies as possible. There are eight program priority areas earmarked for grant funding: Alcohol and Other Drugs, Occupant Protection, Pedestrian and Bicycle Safety, Emergency Medical Services, Traffic Records, Roadway Safety, and Police Traffic Services.

C. State Funding

1. Environmental Enhancement and Mitigation Program

The Environmental Enhancement and Mitigation Program (EEMP) was established by the Legislature in 1989. It offers a total of $10 million each year for grants to local, state, and federal governmental agencies and to nonprofit organizations for projects to mitigate the environmental impacts caused by new or modified state transportation facilities. Eligible projects must be directly or indirectly related to the environmental impact of the modification of an existing transportation facility (CA Constitution, Art. XIX, Sec.1) or construction of a new transportation facility. Grants are awarded in three categories:

Highway Landscape and Urban Forestry: Projects designed improve air quality through the planting of trees and other suitable plants.

Resource Lands: Projects for the acquisition, restoration, or enhancement of watersheds, wildlife habitat, wetlands, forests, or other natural areas.

Roadside Recreational: Projects for the acquisition and/or development of roadside recreational opportunities.

2. Petroleum Violation Escrow Account

Funds from the PVEA are intended to result in energy savings or displacement of nonrenewable energy. Project Eligibility for PVEA funds are available as a

result of Federal Court decisions and settlement agreements against a number of oil, which ordered refunds to the States for petroleum product price overcharges. PVEA projects must result in energy savings or displace nonrenewable energy and provide restitution to the motoring public who were injured by the oil price overcharges.

D. State Department of Public Resources

1. Habitat Conservation Fund Grant Program

The Habitat Conservation Fund Grant Program provides funds to local governments under the California Wildlife Protection Act of 1990. Funds of $2 million are available under the program. Cities, counties and districts are eligible to apply. Eligible districts are defined in Subdivision (b) of Section 5902 of the Public Resources Code. The HCF program requires a dollar for dollar match from a non-state source.

E. State Treasurer Programs

1. Sustainable Communities Grant and Loan Program (SCGL)

This program is sponsored by the State Treasurer's Office in their role as the California Pollution Control financing authority. The grants are intended to encourage sustainable development which includes infill development, proximity to transportation, promotion of economic development in low income areas, support alternative transportation and so forth. The funds can be used for planning or implementation. The maximum grant amount is $350,000. Total annual amount statewide is $2.5 million. Counties and cities are eligible and Calaveras County can submit one application per round.

F. State Housing and Community Development Programs

1. Community Development Block Grants (CDBG)

Begun in 1974, the Community Development Block Grant (CDBG) is one of the oldest programs of HUD. The CDBG program provides annual grants on a formula basis to many different types of grantees through several programs. Calaveras County is not an entitlement county so they must compete each year. The County can receive a total of $800,000 per year ($500,000 per grant) from these two programs combined. There are two general categories:

General Allocation

Funds are meant primarily for low income housing. Infrastructure projects generally must be exclusively for low income housing, and cannot be used to pay a share of infrastructure that benefits the full community.

Economic Development (Over the Counter Enterprise Program)

Used for infrastructure projects these funds are intended to create jobs for low income residents who have an annual income at or less then 80% of the median income. These funds have been used in the past for improvements to commercial districts with the intention that this would attract new business and in turn create new jobs. Half of the jobs must be below 80% of the County median income and Retail jobs usually qualify.

These funds are not appropriated until a new or expanded business is given a permit. The business or the County must guarantee that there will be one job created for each $35,000 grant, and Collateral is required.

2. CDBG- Planning &/Technical Assistance

These Planning and Technical Assistance grants are for up to $35,000 each. Each county is eligible for two grants pre year, one for General Allocation

projects (housing and infrastructure) and one for Economic Development projects.

G. Federal Programs

1. USDA-Rural Business Enterprise Grants (RBEG)

These grants are available to cities and non-profit organizations. The primary criterion is the creation of jobs and economic development, with an emphasis on small businesses. They can be used for training, Revolving Local Funds, technical assistance, capital expenditures, parking, façade improvements and other uses. Not all costs are eligible for Rural Business Enterprise Grant funds. RBEG funds are intended to jump start new projects to meet the critical needs portion of the project. They typically range from $100,000 to $200,000. Notification of Funding Availability for the next round is expected in December. They are very competitive.

2. Regional Surface Transportation (RST) Funds-County

County RST funds must be used on county roads. Currently there are more projects identified than they can fund. But if the Arnold project can demonstrate its benefits to the County, it could be considered.

3. Hazard Elimination Safety (HES) Program

The Hazard Elimination Safety Program (HES) is a federal safety program that provides funds for safety improvements on all public roads and highways. These funds are intended to eliminate or reduce the number and/ or severity of traffic accidents at locations selected for improvement. The amount of funds allocated to the local HES Program each year may range from $10 million to $16 million. Each year, local agencies compete for HES funds by submitting candidate safety projects to Caltrans for review and analysis. Caltrans prioritizes these projects statewide, and releases an annual HES Program Plan that identifies the projects that are approved for funding.

4. Transportation and Community and System Preservation Pilot Program

The Transportation and Community and System Preservation Pilot (TCSP) Program has provided funding over five years to State and local governments to develop innovative strategies that use transportation to build livable communities. Created by Section 1221 of the Transportation Equity Act for the 21st Century (TEA-21), $61.25 million per year for FY 2006 through 2009 of funding is authorized to respond to the concerns of communities from across America that transportation investments should be used to achieve strong, sustainable economic growth while simultaneously ensuring a high quality of life. Access to jobs, traffic congestion, preservation of green space, and the need for a sense of community are just a few of the considerations that must be balanced as communities plan for their futures. Grants provided by TCSP support projects that improve linkages among transportation and community planning and system preservation practices.

5. Land & Water Conservation Fund (LWCF)

The Department is pleased to announce the application deadline for the Land and Water Conservation Fund Program (LWCF). The LWCF program provides matching grants for acquisition or development of lands and facilities that provide or support public outdoor recreation. Local units of government, including cities, counties, and districts that are authorized to acquire, develop, operate and maintain park and recreation areas are eligible to apply. As of September 20, 2007, the amount of the State's apportionment for this year is unknown. Once the Department is informed of its apportionment, it will post the information on its website immediately upon notification.

6. Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)

SAFETEA-LU is a federal grant program administered by the Federal Transportation Administration. Replacing the TEA-21 program, SAFETEA-LU

maintains many of the same goals and programs. This program builds on this firm foundation of the previous programs, supplying the funds and refining the programmatic framework for investments needed to maintain and grow our vital transportation infrastructure. SAFETEA-LU addresses the many challenges facing our transportation system today, such as improving safety, reducing traffic congestion, improving efficiency in freight movement, increasing intermodal connectivity, and protecting the environment as well as laying the groundwork for addressing future challenges. SAFETEA-LU promotes more efficient and effective Federal surface transportation programs by focusing on transportation issues of national significance, while giving State and local transportation decision makers more flexibility for solving transportation problems in their communities. This program guarantees funding for highways, highway safety, and public transportation which totals $244.1 billion and represents the largest surface transportation investment in our Nation's history.

7. Congestion Mitigation and Air Quality Improvement (CMAQ)

The CMAQ Program directs funds to transportation projects in Clean Air Act non-attainment areas for ozone and carbon monoxide. These projects should contribute to meeting the attainment of national ambient area air quality standards (NAAQS). CMAQ funds may be used for construction of bicycle transportation facilities and pedestrian walkways, or non-construction projects such as brochures and route maps related to safe bicycle use. Bicycle projects must be primarily for transportation rather than recreation, and be included in a plan developed by each Metropolitan Planning Organization (MPO) and the State. SAFETEA-LU made projects that bring sidewalks into compliance with the Americans with Disabilities Act (ADA) eligible for these funds.

8. Recreational Trails

A total of $370 million is provided through 2009 to continue this program to develop and maintain trails for recreational purposes that include pedestrian, equestrian, bicycling and nonmotorized snow activities as well as off-road motorized vehicle activities. New eligibilities are provided, including construction and maintenance equipment, real estate costs, educational program costs, State administration costs, and assessment of trail conditions.

9. Rural Community Development Initiative (RCDI)

Rural Housing Service (RHS) agency within the USDA Rural Development provides $6,286,500 of competitive grant funds for the RCDI program. Applicants must provide matching funds in an amount at least equal to the Federal grant. These grants will be made to qualified intermediary organizations that will provide financial and technical assistance to recipients to develop their capacity and ability to undertake projects related to housing, community facilities, or community and economic development. Congress initially created the RCDI in fiscal year (FY) 2000 to develop the capacity and ability of nonprofit organizations, low-income rural communities, or federally recognized tribes to undertake projects related to housing, community facilities, or community and economic development in rural areas. The respective minimum and maximum grant amount per intermediary is $50,000 and $300,000.

H. Private Funding Programs

1. Corporate Sponsors/Fundraising

Corporate sponsorship has become a major source of funding for large-scale projects with substantial public exposure. Corporate sponsors are potential sources of funding for facilities, where they can put their name on the facilities and/or special events they can be identified with. This could include tourism related companies (such as hotels) or local companies seeking goodwill in the local community. Some communities have successfully used local fundraising campaigns to fund community amenities such as trails and landscaping.

2. Foundations

Foundation giving is governed by specific guidelines that stipulate purposes for which grant money can be

used, areas of foundation interest and geographic jurisdiction. Competition for foundation funding has become exceedingly competitive, with many foundations deciding to focus on social problems (housing, poverty, medical care, literacy, education, etc.). In most cases they are guided by some affinity for the project, such as location near a company facility or employee sponsorship. However, there are still foundations that provide funding for community facilities, amenities and beautification. A preliminary search identified several sources for these grants including: American Express; America the Beautiful Fund: Keep America Beautiful, Inc. The Pew Charitable Trusts; PepsiCo Foundation; and State Farm Mutual Contributions.

I. Local Financing Vehicles

1. Development Impact Fees (DIF)

AB 1600 regulates the way that impact fees are imposed. It requires that a nexus or connection be made between a fee and the type of development on which the fee is imposed. A development fee cannot be imposed to correct an existing problem or pay for improvements needed for existing development. Development Impact Fees do not require a vote of the people. Thus, in the case of Arnold a nexus study would need to be conducted to demonstrate that future development will require certain improvements. Also, in Arnold DIFs have to be approved by the County Board of Supervisors. Assuming that an impact fee is approved, the funds would not be available until the new development occurred.

2. Benefit Assessments

These are levies imposed within a designated district to finance a specific maintenance or capital improvements. The improvements must specifically benefit the properties. The levy can vary among properties depending on square feet or property frontage. To form an assessment district, 50% approval is required from the property owners. In some cases there are different tiers within the district which pay different assessments.

3. The Mello Roos Community Facilities District (CFD) Act

Passed in 1982, the Mello Roos Community Facilities District (CFD) Act can generally be used to fund a broad range of improvements. Any bonds issued by a Mello Roos CFD are repaid through the levy of a special tax, which must be approved by a two-thirds vote within the district. There is more flexibility in the structure of the special tax. For example, it can be based on zoning or intensity of development . There is also greater flexibility in drawing the district boundaries. They need not be contiguous.

4. Marks-Ross Bond Pooling Authority

This technique is used to pool the tax assessment or fee revenue from several jurisdictions or special districts for the purpose of selling bonds to construct public facilities. The funding provided through a special Assessment District or
Mellow Roos will be offset by a credit in development fees.

5. Business Improvement District (BID)

Financed through special assessments on commercial properties. Passage requires a 50% approval by the property owners in the District. The assessment must be re-approved every five years. Typically these revenues are used for public space maintenance, security, and promotion.

6. Mitigations/Exactions

Can be imposed whenever a development requires approval by the County. Mitigations are imposed as a condition on a tentative map based on rough proportionality to the impacts created. These conditions reflect on and off site mitigations that must be completed in order to be able to develop. Development agreements are another form of mitigation. Mitigations can include providing adequate pedestrian access, setbacks, parking requirements, lighting, signage, sidewalks, landscaping and so forth. (Note that development standards and design guidelines often can be used to accomplish the same objectives.)