

Non-Renewable Energy Conservation Plan

Adopted May 23, 2006
By Resolution No. 2006-155



I. INTRODUCTION

The Otay Ranch GDP requires the preparation of a Non-Renewable Energy Conservation Plan to identify feasible methods to reduce the consumption of non-renewable energy sources, including but not limited to, transportation, building design and use, lighting, recycling, alternative energy sources and land use.

Fossil fuels provide the majority of non-renewable energy sources in the San Diego region. These fuels are directly consumed in the form of gasoline, diesel fuel and natural gas, and indirectly consumed as electricity generated from these fuels. The goals, objectives and policies of the GDP provide for the long-range increase in conservation and reduction of consumption of non-renewable energy sources.

On November 14, 2000, the City Council adopted the Carbon Dioxide (CO₂) Reduction Plan, which included implementing measures regarding transportation and energy efficient land use planning and building construction measures for new development. In this Plan, it was recognized that the City's efforts to reduce carbon dioxide emissions from new development are directly related to energy conservation and air quality efforts. As a result, the City initiated a pilot study to develop a program to update the guidelines for preparation of required Air Quality Improvement Plans (AQIP). The pilot study involved the development of a computer model to evaluate the relative effectiveness of applying various site design and energy conservation features in new development projects. The results of the pilot study confirmed that the application of the Otay Ranch village design concept supports the City's energy conservation goals.

Opportunities for energy conservation in new development fall into three categories: the arrangement and intensity of land uses; mass transit and alternative transportation modes; and building siting, design and construction. The greatest opportunities for significant conservation are transportation related. The planning of Otay Ranch and its villages maximizes these opportunities by concentrating intensity of development around new transit facilities, providing for a regional transit-way and encouraging pedestrian, bicycle and electric cart travel as an alternative to the automobile. Villages of Montecito & Otay Ranch Business ("Plan Area") have been designed in accordance with these energy conservation principles.

A. LAND USE AND COMMUNITY DESIGN

Land use and community design that encourages energy conservation include:

- **Transit Oriented Development**
Village of Montecito concentrates housing, commercial, community purpose, school and park land uses in a village core. A town center commercial development is located in the eastern area of the village. This land use plan and an integrated circulation system locates daily use areas within walking and cycling distance of most village residents. The Otay Ranch Business Park is designed as a business center with a loop circulation system to provide convenient access throughout the area. Public transit lines and stations are located within or in proximity to these concentrated land use areas.
- **Housing Efficiency**
The Village of Montecito includes a high proportion of small single family and multi-family residences. These smaller and attached buildings use less energy for heating and cooling than larger, single-family detached homes
- **Street Widths, Pavement and Street Trees**
Narrow streets and a reduction in pavement reduces heat build up and the demand for air conditioning. Street trees provide shade that further reduces temperatures.

B. TRANSIT FACILITIES AND ALTERNATIVE TRANSPORTATION MODES

Otay Ranch, the Village of Montecito, and the Otay Ranch Business Park are designed to accommodate public transportation and alternative travel modes to reduce energy consumption:

- **Public transportation**
Public transportation is an integral part of the Otay Ranch Community. The regional transit system includes a regional "yellow line" commuter line located on Olympic Parkway, a "red line" located on La Media Road, and "blue line" local Chula Vista transit and "green line" shuttle service buses. Yellow line stations are planned to be located approximately five to six miles apart with the nearest station to the Planning Area located at the Eastern Urban Center. A red line bus rapid transit station is planned to be located in the Village of Montecito commercial center. This station would serve commuters and the high school. A blue line bus will be located on Heritage Road to provide transit service to Village of Montecito residents as well as adjacent villages. This line will also provide the transit access for employees of the industrial

park in the Village Three. A bus line with several stops can be located in Village of Montecito along Santa Victoria, (the Secondary Village Entry Street), the primary east-west circulation street that connects Heritage and La Media Roads. Village Two West may also be served by a bus route and bus stop centrally located along the main access street in the village. The transit plan, including specific project access points, and internal circulation, including bicycle, pedestrian, and road crossings will be determined by the City Engineer, Director of Planning and Building, and Park and Recreation Director during the Tentative Tract Map process. Variations to these concepts may occur where safety or efficiency can be enhanced.

▪ **Alternative Travel Modes**

Low speed electric vehicle (“LSEV”) is envisioned as an alternative mode of travel within and between villages. In Village of Montecito, a Village Pathway, designated for LSEV, bicycle and pedestrian use traverses the village within the core area. LSEVs may also travel on all village streets with a maximum travel speed of 25 miles per hour.

C. BUILDING SITING AND CONSTRUCTION

Energy conservation features for building siting and construction include the following:

▪ **Improved Construction Standards**

Construction in the Plan Area will adhere to the Building Energy Efficiency Standards in Title 24 of the California Code of regulations. In addition, the Developer has agreed to participate in the Chula Vista GreenStar Building Efficiency Program.

▪ **Solar Access**

Passive solar design and building orientation can take advantage of the sun in the winter for heating and reduce heat gain and cooling needs during the summer.

▪ **Lighting**

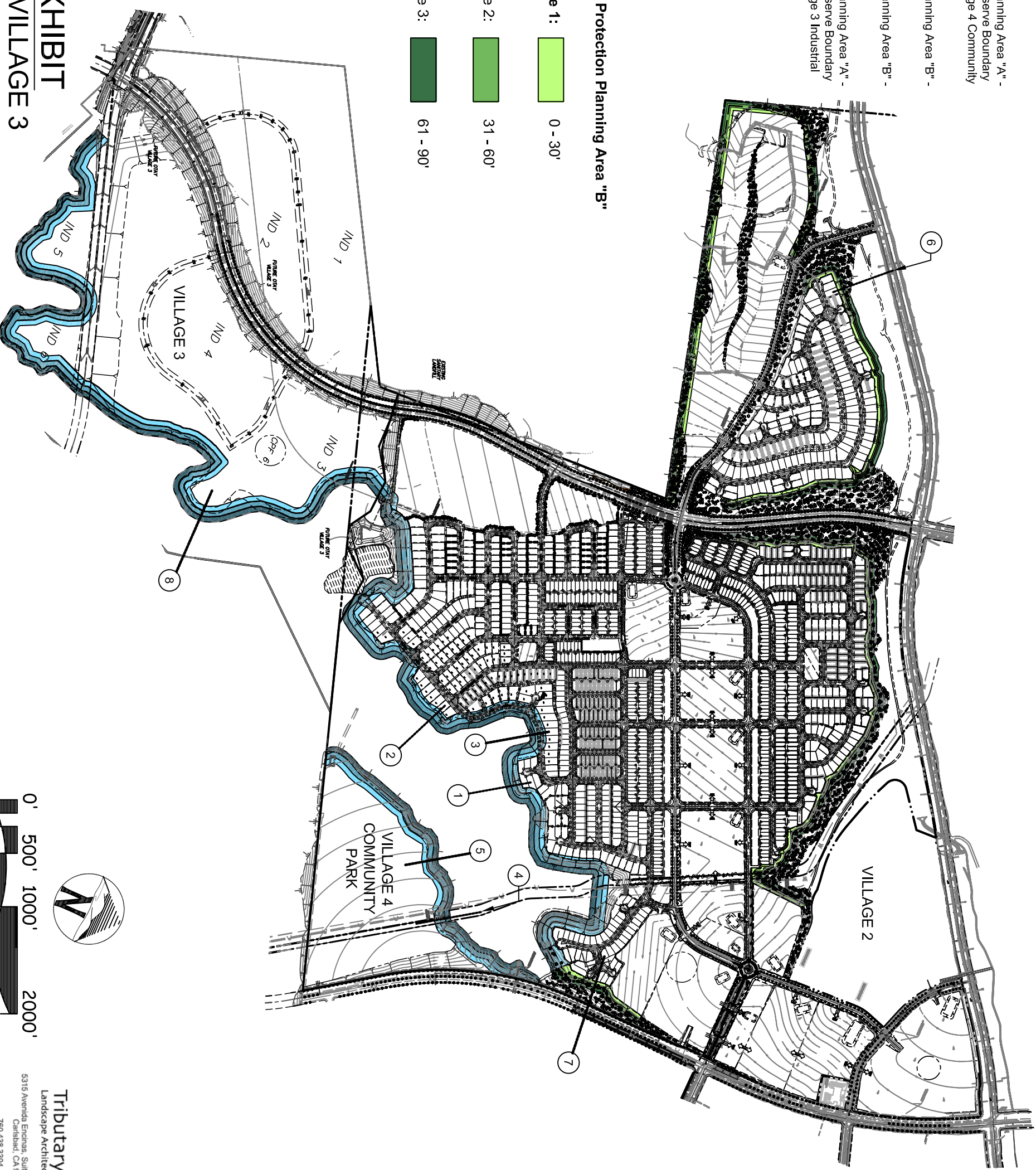
Energy efficient lighting will be used to light streets, parks and other public spaces. Builders will be encouraged to use energy efficient lighting in commercial and residential development.

SECTIONS

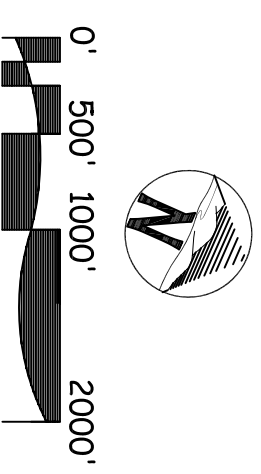
- ① Fire Protection Planning Area "A" - Wolf Canyon, Preserve Boundary Condition 1 - Village 2
- ② Fire Protection Planning Area "A" - Wolf Canyon, Preserve Boundary Condition 2 - Village 2
- ③ Fire Protection Planning Area "A" - Wolf Canyon, Preserve Boundary Condition 3 - Village 2
- ④ Fire Protection Planning Area "A" - Wolf Canyon, Preserve Boundary Condition 1 - Village 4 Community Park
- ⑤ Fire Protection Planning Area "A" - Wolf Canyon, Preserve Boundary Condition 2 - Village 4 Community Park
- ⑥ Fire Protection Planning Area "B" - Olympic Parkway
- ⑦ Fire Protection Planning Area "B" - La Media Road
- ⑧ Fire Protection Planning Area "A" - Wolf Canyon, Preserve Boundary Condition 2 - Village 3 Industrial Park

FIRE PROTECTION ZONES

Fire Protection Planning Area "A"		Fire Protection Planning Area "B"	
Zone 1:	0 - 50'	Zone 1:	0 - 30'
Zone 2:	51 - 100'	Zone 2:	31 - 60'
Zone 3:	100 - 150'	Zone 3:	61 - 90'



FIRE PROTECTION EXHIBIT
OTAY RANCH VILLAGE 2, VILLAGE 3
AND VILLAGE 4 COMMUNITY PARK



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