Lombardo Associates, Inc.

Representative Project Descriptions

No Discharge & Water Reuse Systems

- La Paz Mixed Use Development
  - Malibu, CA
- Sycamore Villages Mixed Use Development
  - Malibu, CA

Environmental Engineers/Consultants
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PROJECT DESCRIPTION – WATER REUSE – NO DISCHARGE SYSTEM MALIBU – LA PAZ DEVELOPMENT MALIBU, CALIFORNIA

Project: La Paz Development
Malibu, CA

Design Flow: 28,000 gpd / 23,000 gpd

Wastewater Engineer: Lombardo Associates, Inc.
Malibu, CA & Boston, MA
617-964-2924
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Malibu La Paz – City Hall Village Green

Client Reference: Mr. Don Schmitz, AICP
Schmitz & Associates, Inc.
Malibu, CA (310) 589-0773 DonS@schmitzandassociates.net

The La Paz Development, located in an environmentally sensitive area adjacent to the famous Surfrider Beach in Malibu, California, consists of eleven (11) commercial buildings with two restaurants, each with 175 seats, and proposed new City Hall.


Malibu La Paz – Entry

The proposed wastewater management water reuse for toilet flushing and landscape irrigation system will have No Discharge from the Wastewater System for the La Paz Development. An effluent storage tank is provided for seasonal periods when wastewater generation is greater than reuse requirements.

The No Discharge is achieved by:

1. In-Building Reuse – Toilet Flushing
2. Landscape Irrigation

An integrated wastewater-stormwater irrigation system will achieve the objective of minimizing water use. Without the water reuse system, the potable water demand will be 32,200 gpd. With the water reuse, potable water demand will be 14,200 gpd, a 56% reduction, determined as follows:

Without Water Reuse:

In-Building Water Demand	=	20,000 gpd
Irrigation	=	12,200 gpd
		32,200 gpd

With Water Reuse:

Net In-Building Water Demand	=	10,460 gpd
Net Irrigation Demand	=	3,740 gpd
		14,200 gpd

A Master Wastewater Management Plan has been prepared to be compliant with Los Angeles Regional Water Quality Control Board (LARWQCB) requirements, California Department of Public Health (DPH) Title 22 Disinfected Tertiary Treatment Standards requirements, and City of Malibu regulations for a Wastewater Management System.

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PROJECT DESCRIPTION –
RAINWATER HARVESTING & WASTEWATER REUSE – NO DISCHARGE SYSTEM
MALIBU – SYCAMORE VILLAGES DEVELOPMENT
MALIBU, CALIFORNIA

Project: Sycamore Villages Development
Malibu, CA

Design Flow: 20,800 gpd / 18,200 gpd

Wastewater Engineer:
Pio Lombardo, P.E.
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Client Reference:
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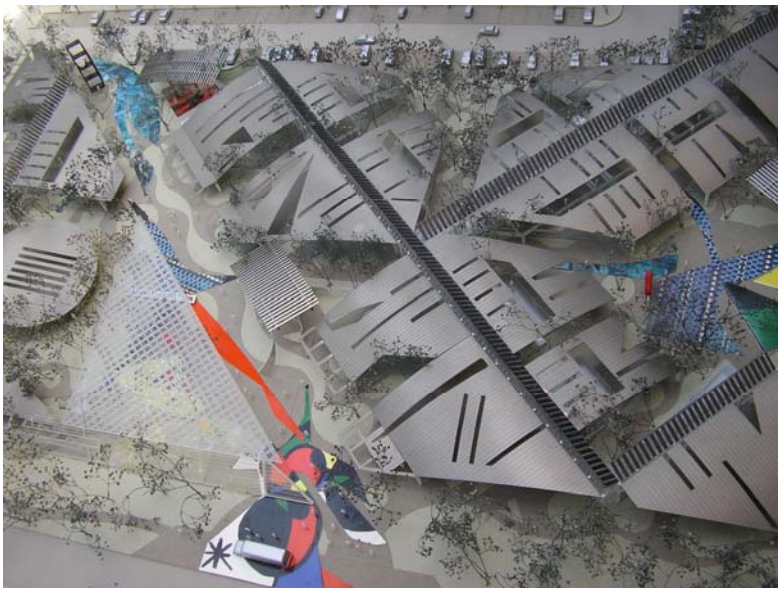

The Sycamore Villages Development, located in an environmentally sensitive area adjacent to the famous Surfrider Beach in Malibu, California, consists of a combination of 65,000 square feet of office and retail space and restaurants with 300 seats.

The proposed rainwater harvesting and wastewater management water reuse for toilet flushing and landscape irrigation system will have No Discharge from the Wastewater System for the Sycamore Villages Development. An effluent storage tank is provided for seasonal periods when wastewater generation is greater than reuse requirements.

The No Discharge is achieved by reusing water for:

1. In-Building Reuse – Toilet Flushing
2. Landscape Irrigation

An integrated wastewater reuse-rainwater harvesting reuse system will achieve the objective of reducing water use by 63%. Without the water reuse system, the potable water demand will be 23,110 gpd. With the water reuse, potable water demand will be 8,500 gpd, determined as follows:

Without Water Reuse:

In-Building Water Demand	=	12,970 gpd
Irrigation	=	10,700 gpd
		23,670 gpd

With Water Reuse Potable Water Demand:

In-Building Water Demand	=	8,400 gpd
Irrigation	=	100 gpd
		8,500 gpd

A Master Wastewater Management Plan has been prepared to be compliant with Los Angeles Regional Water Quality Control Board (LARWQCB) requirements, California Department of Health Services (DHS) Title 22 Disinfected Tertiary Treatment Standards requirements, and City of Malibu regulations for a Wastewater Management System.

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