

# Casas del Quinto Sol

*An affordable housing project in*

Vado/Del Cerro Colonias  
Doña Ana County, New Mexico

# Model Colonia Initiative

November 2003: U.S. Department of Housing & Urban Development (HUD) commissions a study to identify & locate an existing colonia that would become the Model Colonia Initiative.

The community selected was Vado/Del Cerro, New Mexico



## Purpose

- **Assess** conditions in an unincorporated community;
- **Identify** primary physical infrastructure needs and possible solutions;
- **Emphasize** long-range land use and zoning plan, flood control/drainage plan, water, wastewater, utility, roads, and housing.

# The Catalyst...

## creating more benefits

### Model Colonia Initiative

- Extensive master planning effort developed an inventory of community's priorities by
- Honing in on the critical need to develop affordable and *sustainable* housing along the US/Mexico border region.
- The Model Colonia Initiative was also the catalyst for the **Casas del Quinto Sol** affordable housing project & related design competition.

# Affordable Housing for low-income Border communities



## **Local Government Action:**

April 8, 2003, Doña Ana County issues Resolution 2003-46, designating Vado/Del Cerro Community as a ***Model Colonia***.

## **Colonias Partners:**

Casas del Quinto Sol  
Affordable Housing  
Partnership is formed.

# Casas Del Qunito Sol

- Incorporates sustainable building element into the construction of 21 housing units.
- Uses sustainable concepts/green building techniques (i.e. tank less water heaters, communal rain water harvesting, solar panel energy).
- Units reserved *exclusively* for colonias residents.
- Candidates must *successfully* complete financial literacy and homebuyer education sessions prior to qualifying as homeowners.

# Land Acquisition

- Dona Ana County authorizes purchase of an 11 acre parcel using revenue generated from previous home sales (\$150,736)
  - Three existing units sold to families at 80% of median income to generate the funds.
  - Funding represents 7 to 1 replacement factor (21 units developed for 3 sold).
  - Funds returned to DACHA at time of sale to continue the process for future developments.

# Funding Sources

NM MFA Primero Loan Program	\$899,045
NM MFA Housing Trust Fund	\$453,676
State of NM Capital Outlay	\$500,000
NM MFA State Housing Tax Credits	\$100,000
NM MFA HOME Funds	\$777,010
<b>Total Sources (Estimated Development Cost)</b>	<b>\$2,981,731</b>

# Estimated Unit Cost Breakdown

NM MFA Primero Loan Program	\$42,812
NM MFA Housing Trust Fund	\$21,604
State of NM Capital Outlay	\$23,810
NM MFA State Housing Tax Credits	\$4,762
NM MFA HOME Funds	\$37,000
Family Contribution (Sweat Equity)	\$12,000
<b>Total Per Unit Development Cost</b>	<b>\$141,987</b>
NM MFA HOME Funds (Grant)	(\$14,999)
Family Contribution (Sweat Equity)	(\$12,000)
Family Contribution (Down Payment)	(\$1,000)
NM MFA State Housing Tax Credits (Grant)	(\$4,761)
State of NM Capital Outlay (Grant)	(\$23,810)
CAA Individual Development Account (Grant)	(\$4,000)
<b>Owner Mortgage</b>	<b>\$81,417</b>



# Family Affordability - Estimated Monthly Payment

Loan Amount	\$81,417
Annual Interest Rate	5.5%
Loan Period (Years)	30
Payments Per Year	12
Scheduled Payment	\$462
Taxes and Insurance	\$200
<b>Monthly Payment</b>	<b>\$662</b>

# Need for Park/Playground – Family Nurturing and Composition

- 776 Households ((61%) with children less than 18 years of age;
- 68.6% Married couples;
- 16.9% Female heads of householder (with no husband present);
- 8.6% Non-families;
- 7.0% all Households made up of individuals;
- 3.0% Living alone with someone 65 years or older. Average household size was 3.87 and the average family size was 4.03.

# Housing Design Competition

- **Colonias partners and HUD:** Launch design competition and actively target Schools of Architecture at universities and community colleges working with the architectural and housing development community.
- **Goal of Competition:** Secure effective, practical and cutting edge designs that embraced existing technologies and sustainable building techniques in the rural community.
- **Long-term Goals:** Produce energy efficient, structurally sound homes for colonia and rural residents; spur development for rural communities and housing stakeholders to replicate the effort in rural communities throughout the area.

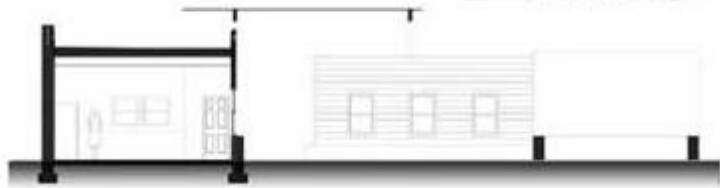
# Housing Design Competition

## WINNERS OF THE CDQS DESIGN COMPETITION:

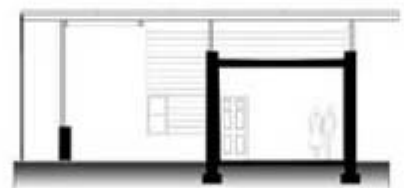
- 1st place, College of Architecture, UNC Charlotte, "Casas del Sol" ([presentation board via next slide](#))
- 2nd place, UNM, Arquitecto Descalzo, "Las Casas de Vado"
- 3rd place, Texas A&M, Echo Team, "Natural Notion"
- All entries showed evidence to utilize new technological materials, energy star appliances and/or energy techniques that allowed the overall operating cost(s) of each unit to go down. Many entries incorporated tank less water heaters, communal rain water harvesting, and solar panel energy into their designs.



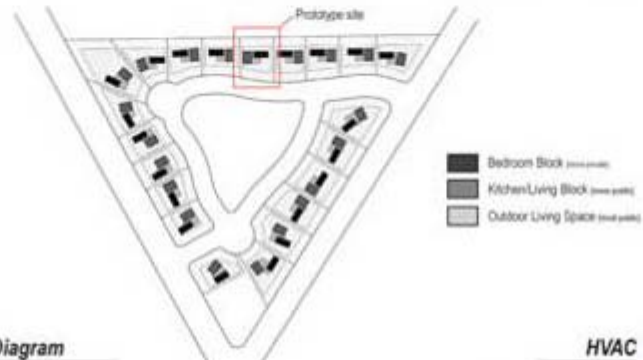
Living Area Section



Bedroom Section



Site Plan



Solar Diagram

HVAC

Splitting up program...

Though often considered a minor adjustment to building design, window walls are a critical detail without a culturally relevant to the region and the movement of the program. To guarantee quality we needed to identify a strategy for building according to a local condition. Including the use of a window structure in terms of the wall height, appearance, material, and climate requirements as well as cultural identity and form.

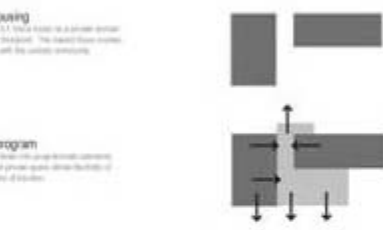


By using a wall with horizontal slats, we'll make an effort to look at the best of a window structure. This is because horizontal slats are a traditional feature in this area. This detail will be used to anchor.

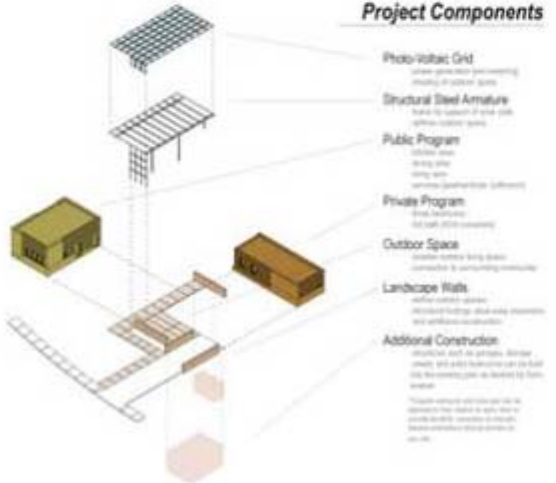
Window heights, a small height to height to support the purpose of getting the walls closer together in the building.



The design requirements of the window structure are made to be in accordance with the on-site view of the construction of their forms.



Project Components



Artist Rendering – Proposed Park/Playground



# Highline Road



**Proposed Subdivision**



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Streaming ||||| 100%

Pointer 32°07'18.95" N 106°38'41.70" W elev 3863 ft

Eye alt 6613 ft

# Project Cost Estimates

## – Highline Road Existing Conditions

Highline Road	\$71,750
Ponding Area	\$7,500
Interior Road Paving	\$98,250
State Road 227 (Turn/Deceleration Lanes)	\$22,500
<b>Total</b>	<b>\$200,000</b>
<b>Per Unit Cost to Owner</b>	<b>\$9,524</b>



# County owned Highline Road – Savings to Participants

Loan Amount	\$71,894
Annual Interest Rate	5.5%
Loan Period (Years)	30
Payments Per Year	12
Scheduled Payment	\$408
Taxes and Insurance	\$200
<b>Monthly Payment</b>	<b>\$608</b>

# **NMSA 1978**

## **Chapter 6, Article 27 Affordable Housing Act**

- An Act related to Public Finance; Permits state and local governments to provide or pay the cost of land, buildings or necessary financing for affordable housing projects.

# **The state, a county, a municipality or the authority may:**

- A. donate, provide or pay all, or a portion, of the costs of land for the construction on the land of affordable housing;
- B. donate, provide or pay all or a portion of the costs of conversion or renovation of existing buildings into affordable housing;
- C. provide or pay the costs of financing or infrastructure necessary to support affordable housing projects; or
- D. provide or pay all or a portion of the costs of acquisition, development, construction, financing, operating or owning affordable housing.

# Conclusion

- Approval of Casas del Quinto Sol subdivision occurred without conditions.
- Construction currently underway, with future residents greatest achievement...owning a home THEY work to build (via sweat equity, and mandatory financial literacy requirements)
- Future Consideration is funding roads, park and pond to reduce overall cost of homes in support of much needed affordable housing in the county.

## **Affordable housing now a reality for some**

By Bryan Kirk Sun-News reporter 06/23/2007 12:00:00 AM MDT

VADO — A white canopy tent marked the spot Friday morning that could very well change the face of affordable housing in New Mexico forever. What is certain is that it will definitely change the lives of some New Mexicans who are now unable to build their dream home.

State and local dignitaries, along with several families who will build on that 11-acre plot of land, participated in a groundbreaking for the Casas Del Quinto Sol subdivision, which will use "green" building techniques.

Recognizing the fundamental problems within colonias, Thomas Hassell, executive director of the Housing Authority for the city of Las Cruces and Doña Ana County, said the concept was to start with an initial effort in the Vado community, with the hope of building more homes later.

Nearly 100 people crowded into and around the tent with the aim of changing the face of affordable housing, starting with Vado.

Rene Flores of Vado was one of those people. For years, Rene and his wife have dreamed of owning their own home. Shielded from the sun and surrounded by his family, Flores was excited about seeing his dream come true and having a place his family can finally call their own. "They said we could choose the material and choose our own houses from different plans," a grinning Flores said.

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Like Habitat for Humanity, families who qualify for the homes are required to invest what is called "sweat equity," which gives each project more of a personal touch.

Flores' wife, Veronica, smiled when her husband said he was looking forward to his family's help when it comes time to build. But in expressing their appreciation to those in attendance, the couple was overwhelmed.

The Flores family, including four children, will occupy one of an estimated 21 single-family homes that are being developed jointly by the Las Cruces Housing Authority and the Doña Ana County Housing Authority.

Like most homes built by housing authorities, these are designed to help low-income families through such funding sources as the U.S. Department of Housing and Urban Development and Fannie Mae. "Right now we have five or six families qualified and by the time we start construction, we hope to have at least 10," Hassell said.

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The homes will cost the new qualifying homeowners slightly more than \$85,000 and require \$1,000 down. However, these homes are 21st century in approach. Designed by a team from the University of North Carolina in Charlotte, the houses will use green building techniques, alternative building materials and energy and water conservation strategies. The team who designed the homes was led by Jose Gamez, an assistant professor in the college of architecture at the UNC. "We read the project and began looking at ways to take a small house proposal and kind of expand it, make it more livable and look at the ways it responded to the local climate," said team member Brad Buter.

Buter and his team member Michael Ward said using age-old concepts that most builders have strayed from helped make the homes more energy efficient.

The costliest portion of this project is the addition of a solar grid that will be part of each home. "There are a lot of things that have to be rethought to make a project like this completely green," Gamez said. Many of the same building concepts are being incorporated on the West Coast, and it is catching in other parts of the U.S. While this project is the first of its kind, it may not be the last.

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"This is an initiative that has been in the making for several years," said state Rep. Mary Helen Garcia, D-Las Cruces. "I think that affordable housing is one of the key issues in this area. This will change the colonia-style of living and I think the people should be proud for participating in such an outstanding project."

Win Jacobs, a housing authority commissioner, said projects like this were vital to colonias like Vado.

"We're hoping that this is a prototype we can replicate in more than one place," she said. "The need is so great."

Victoria Gonzales, who lives in San Miguel, has never owned a home of her own. She has been trying to buy a home for three years and is thrilled her dream is finally coming true.

"This is real exciting," she said. "This is the first house we're ever going to have."

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