Habitat for Humanity Tucson

Casas de Cielo Azul

housing design concepts presented to
Habitat for Humanity Tucson
Home and Community Design Committee
April 7th, 2010
HfHT Program & Principles

Conceptual Design

Size:
• Single-family detached
• 3 Bedroom, 1 ¾ - 2 Bath
• 1,000 - 1,200 s.f.
• 1 and/or 2-story

Higher Density:
• Shared entry courts or driveway courts
• 2-story

Low Material Cost & Volunteer Friendliness

“Gold” - Regional Residential Green Building Rating System

Develop a Contemporary Standard Building Model
Initial Sustainable Design Principles

Conceptual Design

Solar Orientation/ Natural Lighting:
• Long side facing South
• Limited glazing on East and West facades
• Shaded glazing on South facade
• High/Clerestory windows

Natural Ventilation/ Indoor Air Quality:
• Two operable windows in each bedroom/ room for cross ventilation
• Higher ceiling for transom windows above interior doors

Useable Outdoor Space

Foyer or Entry Vestibule

Plumbing Core

Avoiding Auto Dominance & Conflict with Indoor Air Quality
Site Analysis: 42 Lots
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22 Lots are “EW” with buildable areas > 30’ x 66’
#1 – #13, #34 – #42
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16 are “NS” with buildable areas > 47’ x 40’
#14, #15, #17 – 30
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4 have unique dimensions or conditions:
#16, #31, #32, #33
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4 have unique dimensions or conditions:
#16, #31, #32, #33
East/West Lots

- 10'-0" Rear Setback (or \( \frac{3}{4} \) H or H)
- 10'-0" Utility Easement - Per Plat
- 3'-0" Side Setback
- Fence
- Optional 0'-0" Side Setback if opposite setback is 6'-0"
- 5'-0" Sidewalk
- 2'-0" Space...
- 2'-0" Wedge Curb

~ 95'-8" (Varies)

~ 38'-9" (Varies)
North/South Lots

~ 47'-6" (Varies)

10'-0" Rear Setback
(or 3/4 H or H)

100 YR

~ 74'-5" (Varies)

Optional 0'-0" Side Setback if opposite setback is 6'-0"

3'-0" Side Setback

5'-0" Sidewalk

2'-0" Space...

2'-0" Wedge Curb

10'-0" Utility Easement - Per Plat

100 YR
Conceptual Designs
EW1_Option B
EW1_Optional Site Layout
EW1 Optional Site Layout
EW3_Optional Site Layout
NS1

Level 1:
- Bedroom 1
- Bath
- Kitchen
- Dining
- Living
- Carport

Level 2:
- Bedroom 2
- Bath
- Bedroom 3
- Open to below
  - Bedroom 4
NS1_Option A
NS1_Option B
NS2_Option A