New Directions

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Is Green Architecture the Answer?

"A new indigenous architecture which responds to Florida's most valuable asset--location."

Green Design

Technological Strategies

- High Tech - eg. Solar Panels that track the sun's movement
- Low Tech - eg. Solar Water Heaters, Prefab wall systems

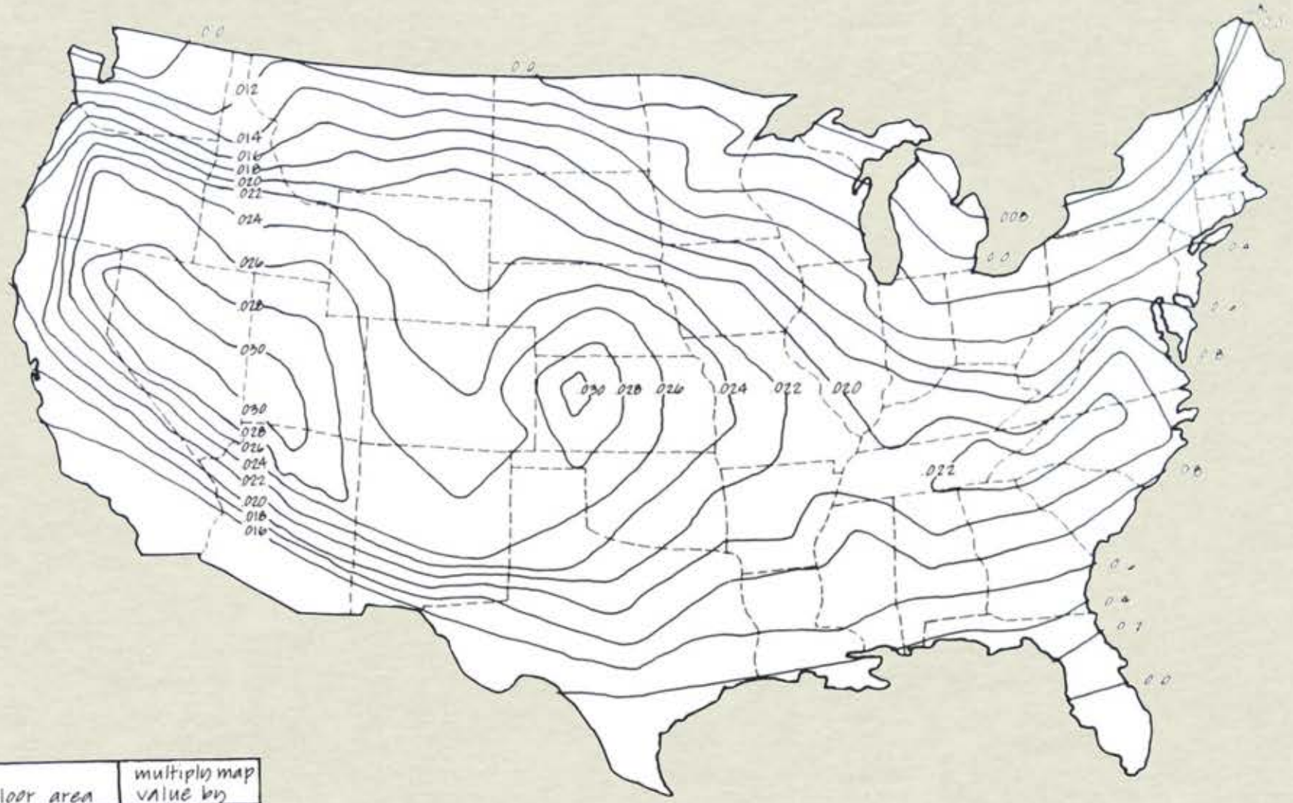
The Caveat: Its not easy being green. While anyone can implement technological strategies given enough money--they can be costly, and are therefore distant from the mass market, and broad market forces.

Green Design

Passive Strategies

- Architectural - eg. Static shading devices, cross ventilation
- No Tech - eg. Site Design and Orientation

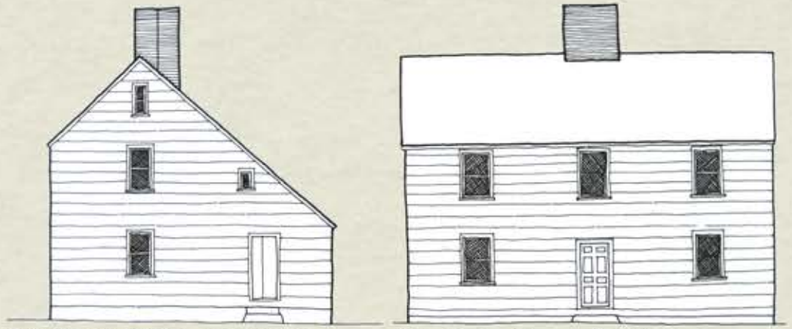
The Caveat: Requires attention and thoughtful design skill for local site conditions.



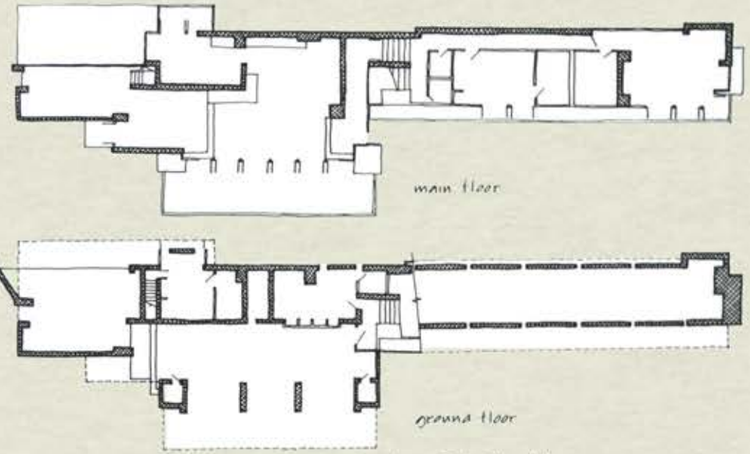
Map Contours = 1/(LCR)(CF)

building floor area	multiply map value by
1000 sq ft	730
1500 sq ft	660
3000 sq ft	540
5000 sq ft	480
10000 sq ft	410
20000 sq ft	370

Geometry Factors



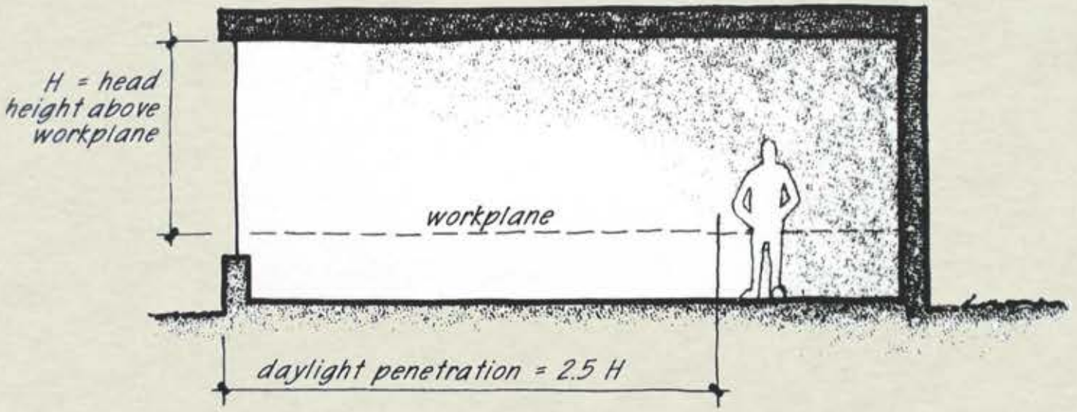
Old Ogden House Fairfield, Conn. Old Ogden House Fairfield, Conn.

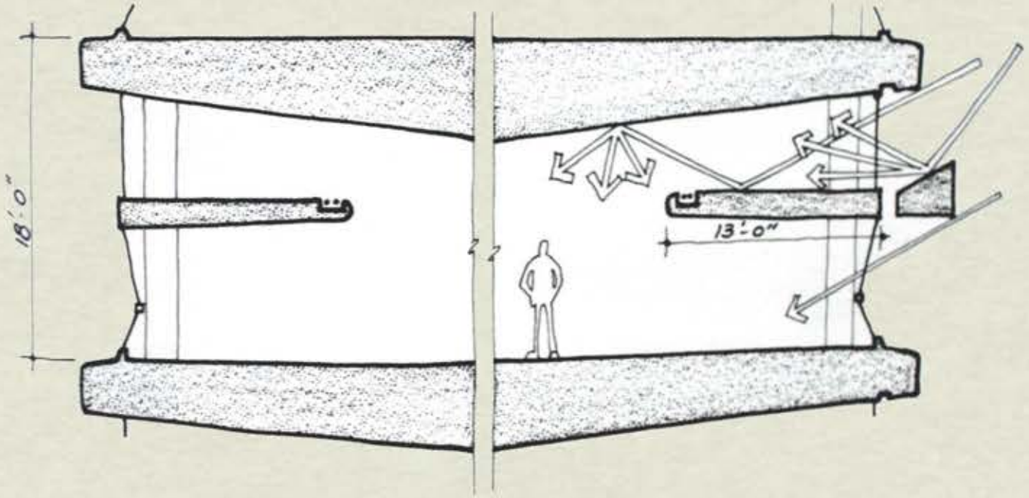


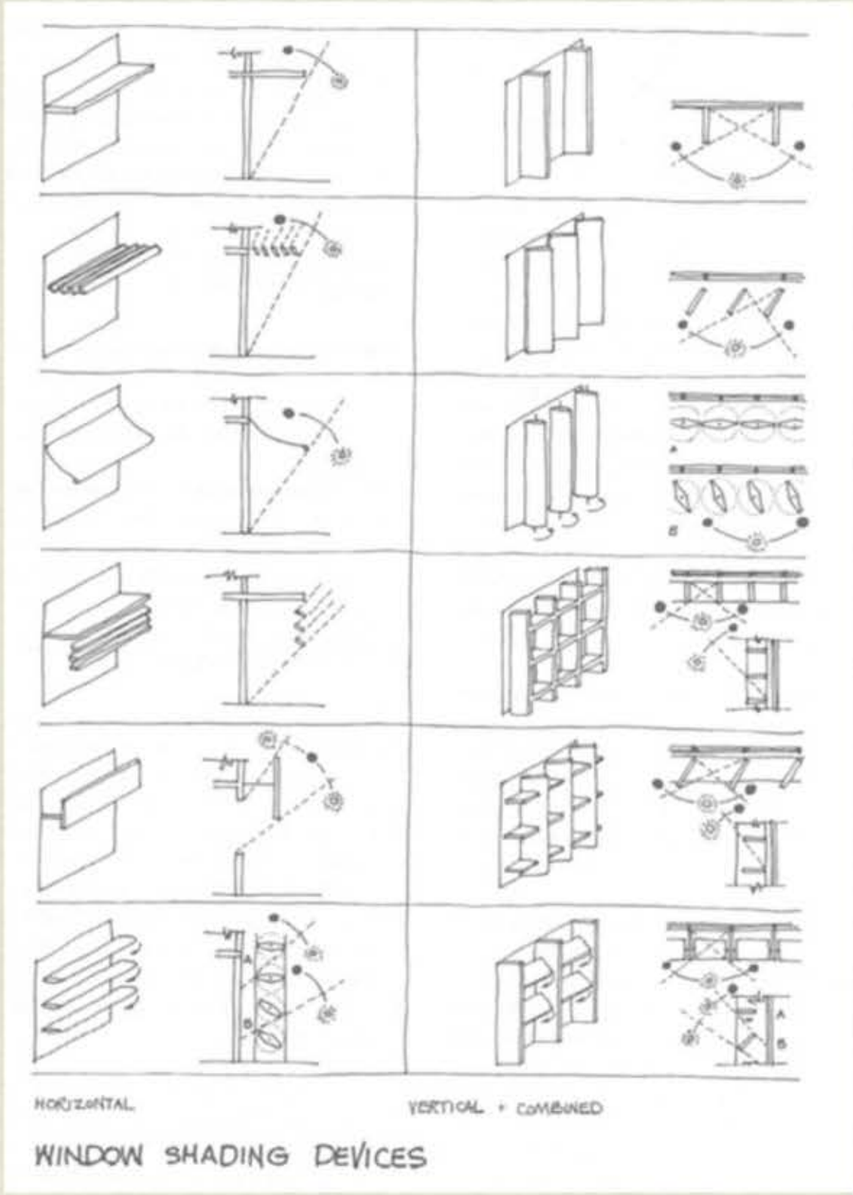
Lloyd Lewis House Libertyville, Illinois F.L. Wright

Architectural: Form & Footprint

GREEN DESIGN TOOLBOX

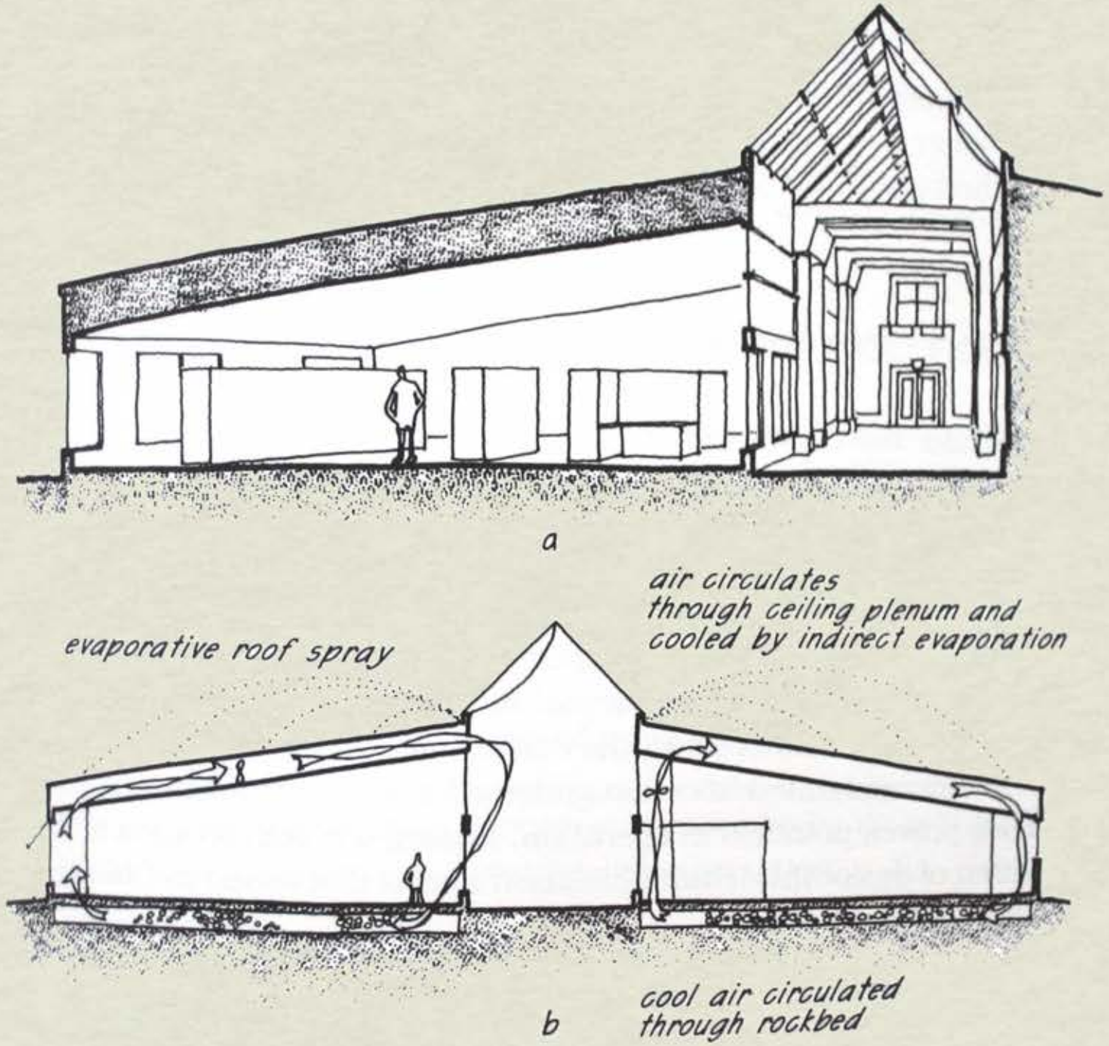






Architectural: Sun & Daylighting

GREEN DESIGN TOOLBOX



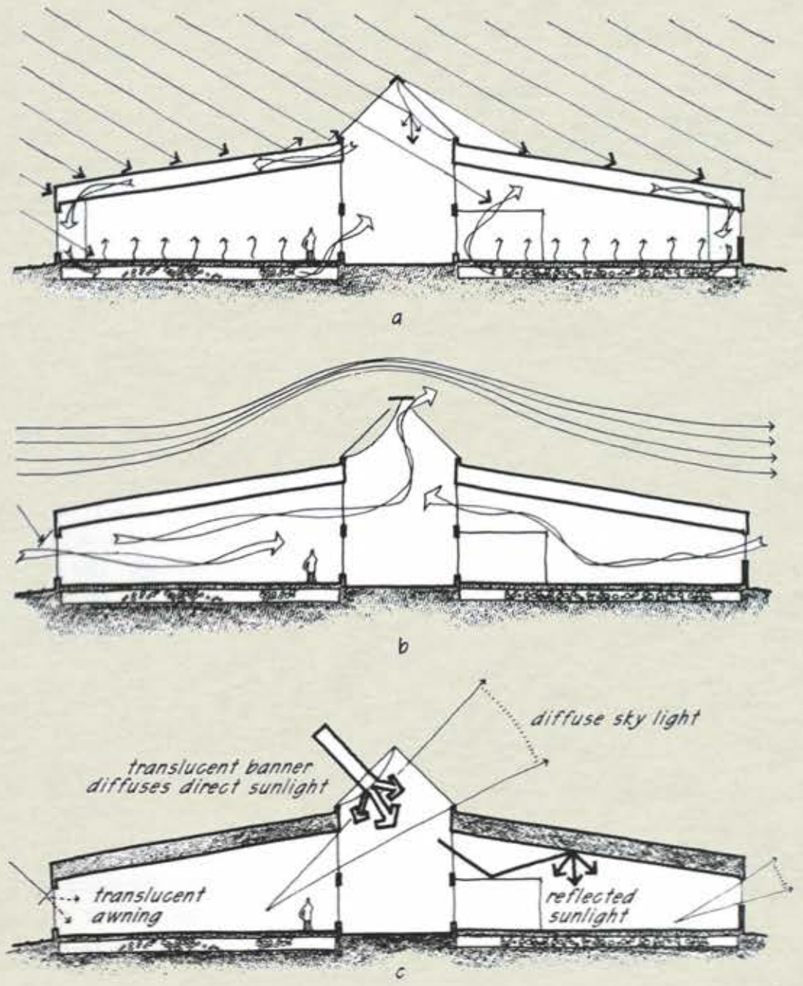
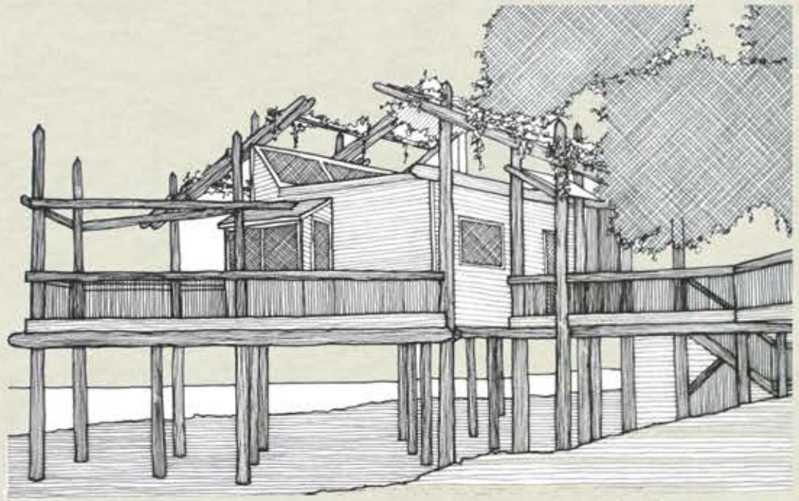


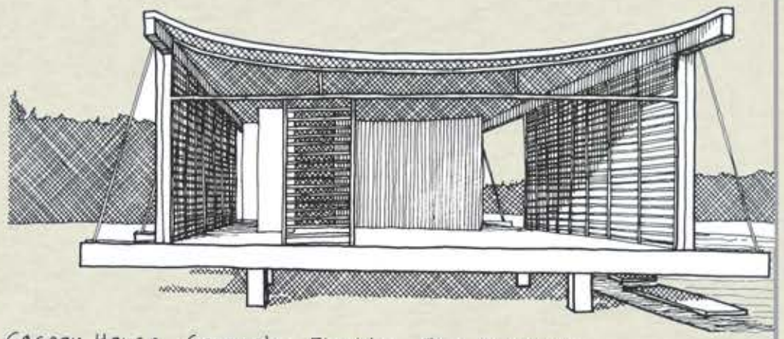
Figure 17.10: Princeton Professional Park: (a) passive solar heating section, (b) ventilative cooling section, and (c) daylighting section. *(After Ternoey et al., 1985.)*

Architectural: Coalescence Of Elements



Abramson Residence Sacramento, California Brent Smith

House Tucson, Arizona Judith Chafee



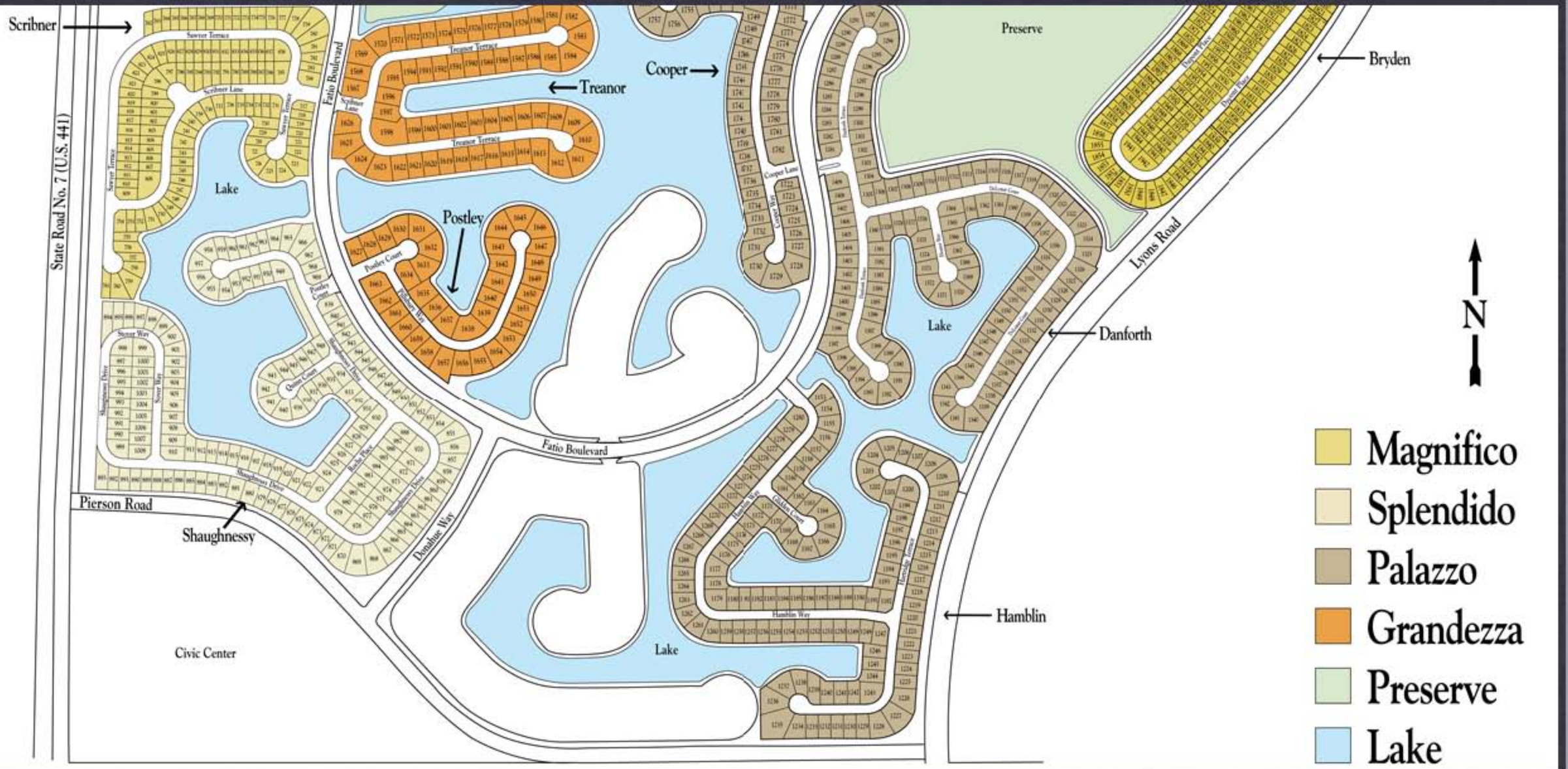
Cocoon House Sarasota, Florida Paul Rudolph

Architectural: Distinct Character

GREEN DESIGN TOOLBOX

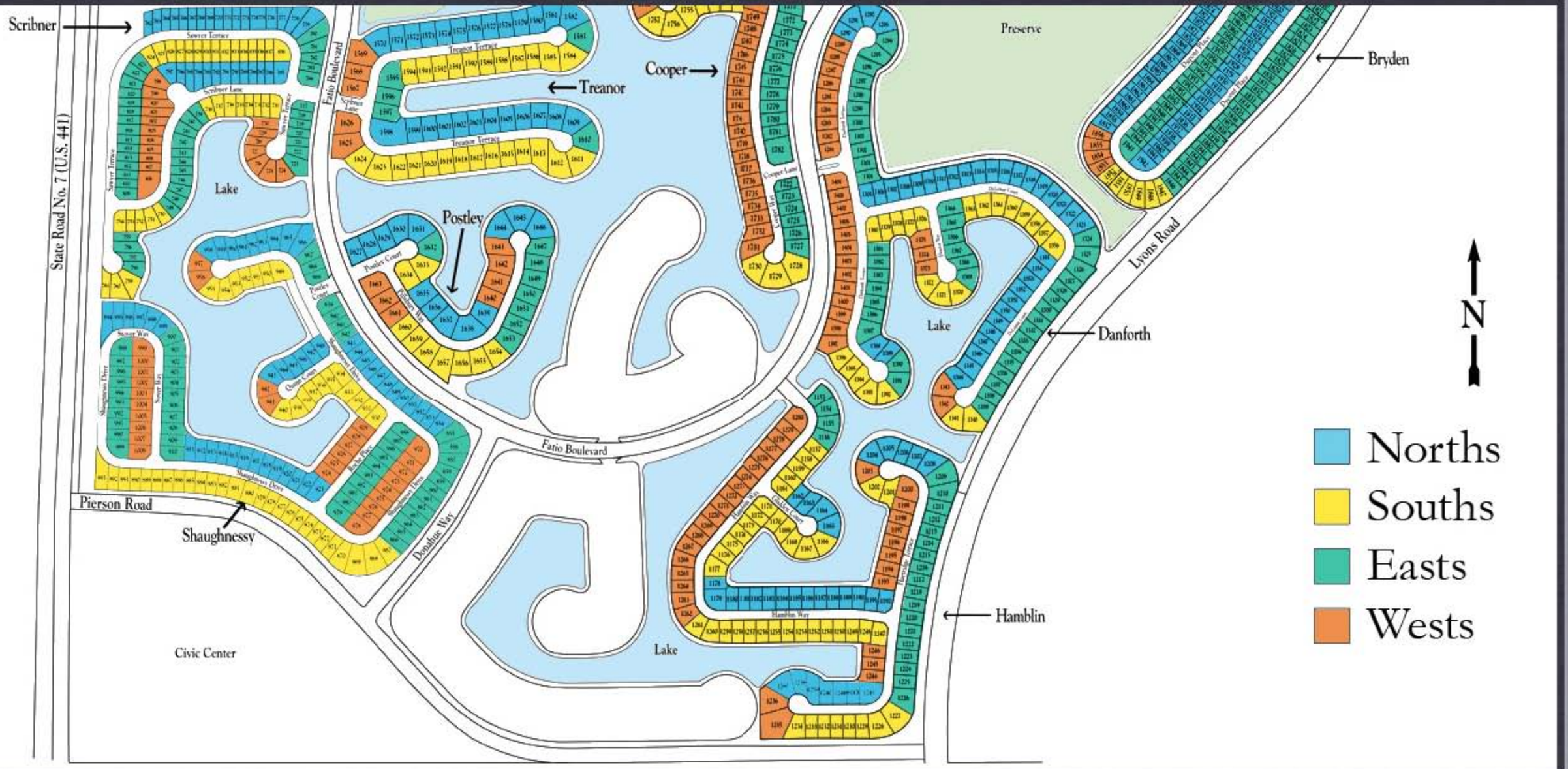
What is "No-Tech" Design?

- Abstract concept that could differentiate us from our competition
- Differentiate our clients from their competition
- Not hard, but requires thought and thoughtful design
- Includes:
  - Reduce: re-consideration of Site & Master Planning Techniques
  - Reuse: re-arrangement of parts already used
  - Recycle: marketing of old ideas in new way, re-price lots to maintain profit ratio
  - Goal: Mass Production of Light Green Design, with standardized parts, zero net change. Responds to the question: *How can we start to make "green" affordable?*



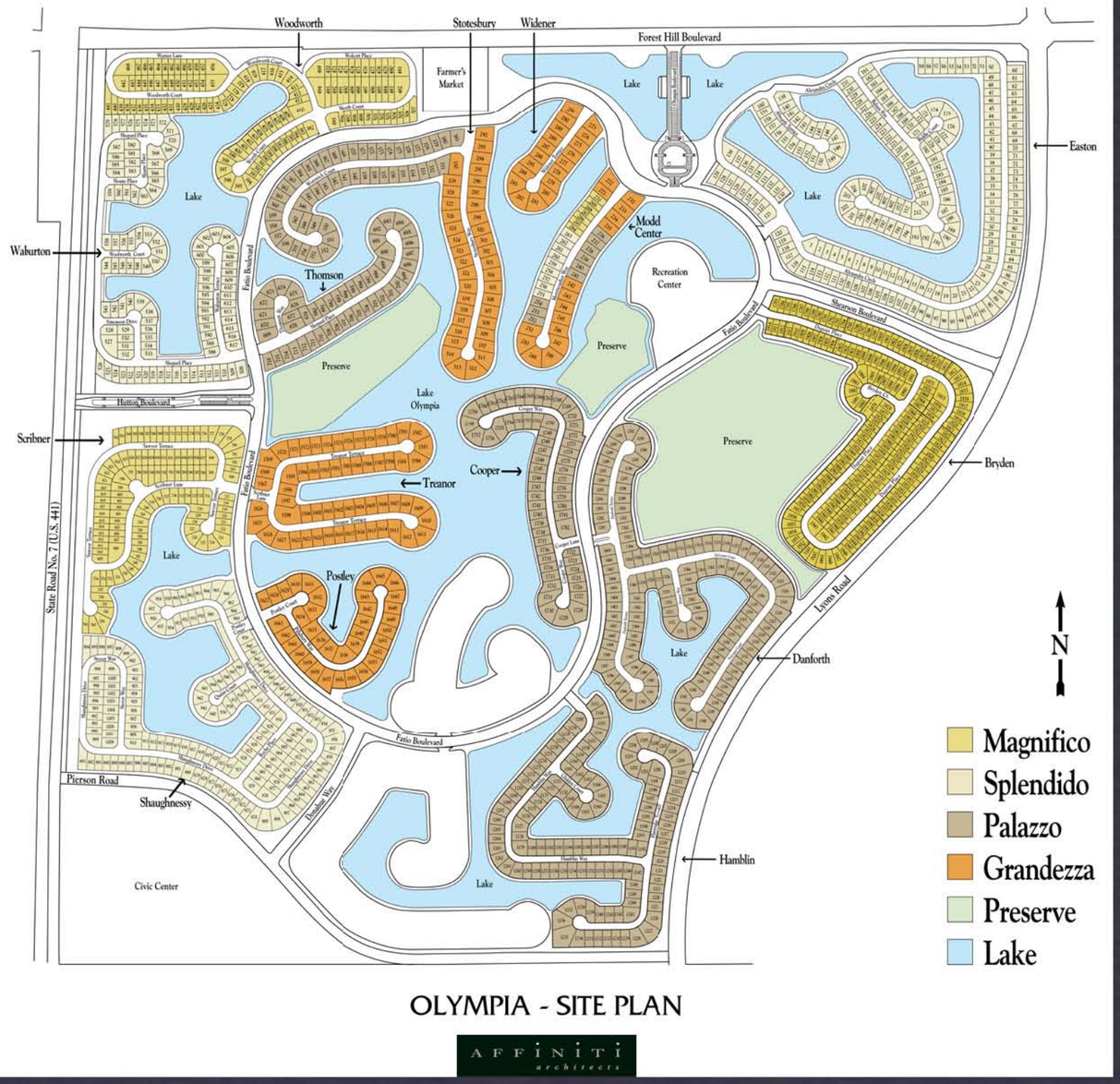
Traditional Marketing Strategy

SYNTHESIS: SITING STRATEGIES: OLYMPIA, MINTO COMMUNITIES



"Green" Marketing Strategy

SYNTHESIS: SITING STRATEGIES: OLYMPIA, MINTO COMMUNITIES



OLYMPIA - SITE PLAN

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OLYMPIA - SITE PLAN

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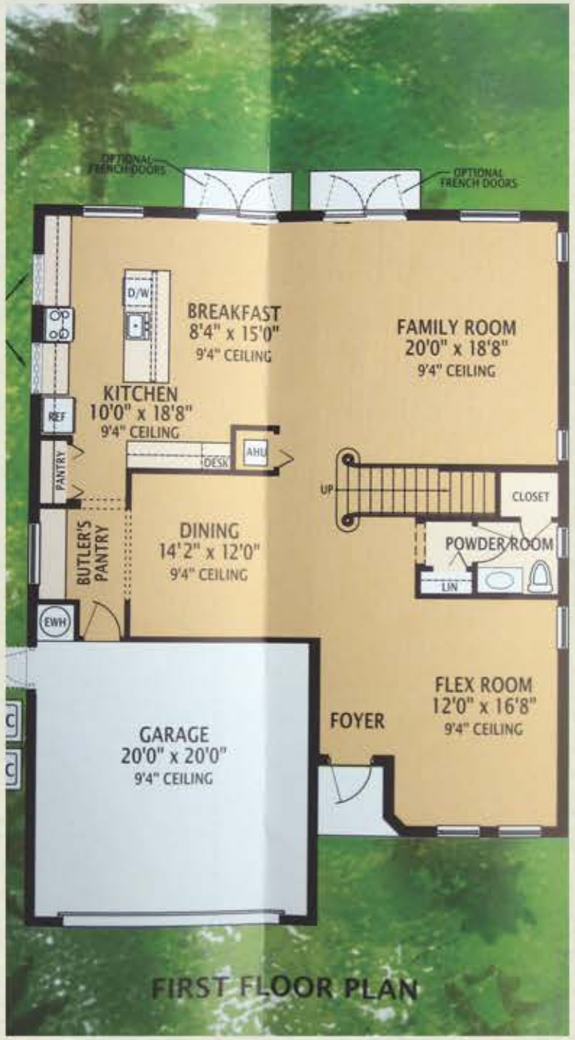
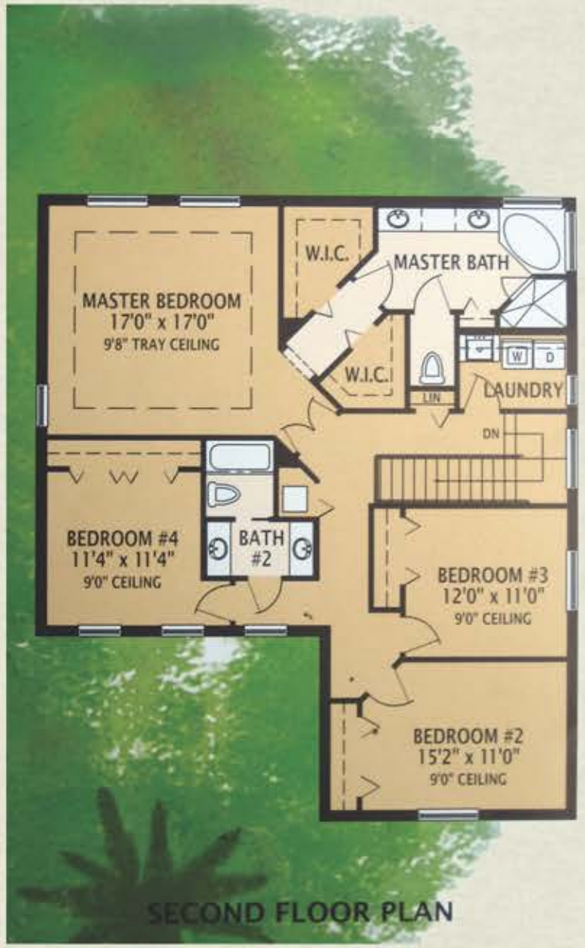
Marketing Comparison

SYNTHESIS: SITING STRATEGIES: OLYMPIA, MINTO COMMUNITIES

MONTARA 4 ELEVATION B

- 2-Car garage protects house from South Exposure
- Traditional style facade, in typical Olympia kit-of-parts
- Typical 39’-10” Splendido Unit width
- Overhang to be increased to 1’ to provide more shade to building during Summer
- North facing family and North facing court receives morning light, minimal glazing on west wall upstairs





Splendido Collection: North: “Montara”

SYNTHESIS: SITING STRATEGIES: OLYMPIA, MINTO COMMUNITIES

- 3-Car tandem garage protects house from South Exposure
- Traditional style facade, in typical Olympia kit-of-parts
- Typical 39’-10” Splendido Unit width
- Overhang to be increased to 1’ to provide more shade to building during Summer
- East facing family and North facing court receives morning light, Living and Garage protects house from harsh West light.

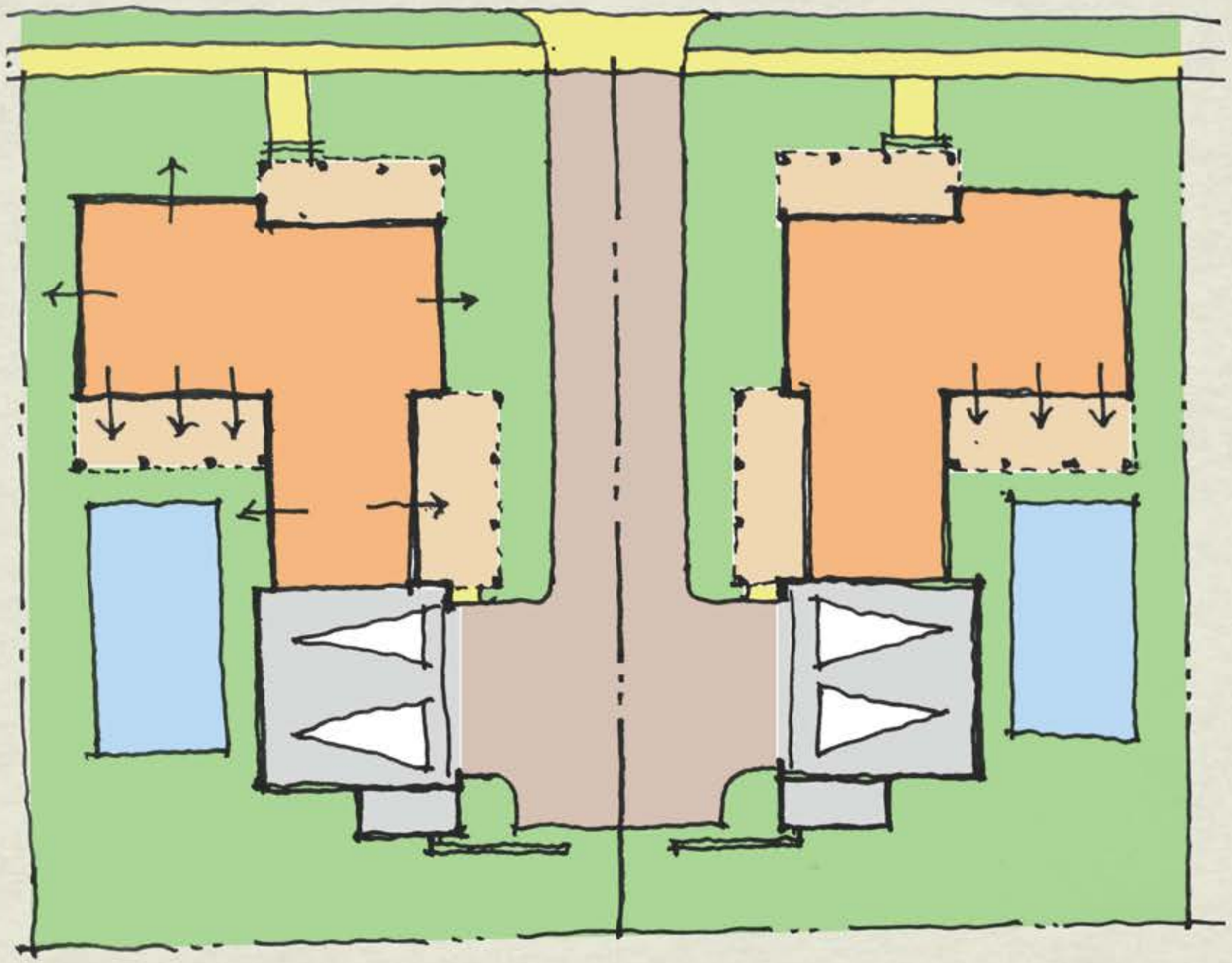
Splendido Collection: East: “Terraza”

SYNTHESIS: SITING STRATEGIES: OLYMPIA, MINTO COMMUNITIES

- 3-Car tandem garage protects house from South Exposure
- Traditional style facade, in typical Olympia kit-of-parts
- Typical 39’-10” Splendido Unit width
- Rear Pergola would be standard on this unit orientation-lot cost would increase to make up the cost difference to builder.
- “Droopy Dogs” would be added to rear bedroom windows.
- Overhang to be increased to 1’ to provide more shade to building during Summer

Splendido Collection: West: “Granada”

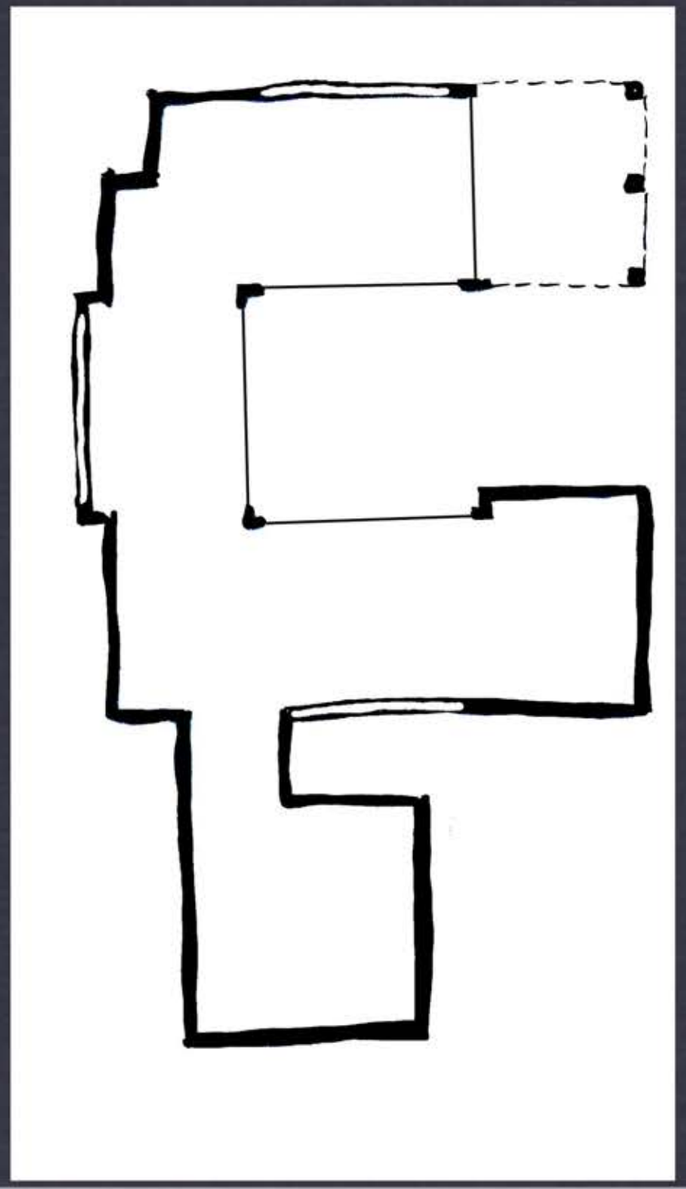
SYNTHESIS: SITING STRATEGIES: OLYMPIA, MINTO COMMUNITIES

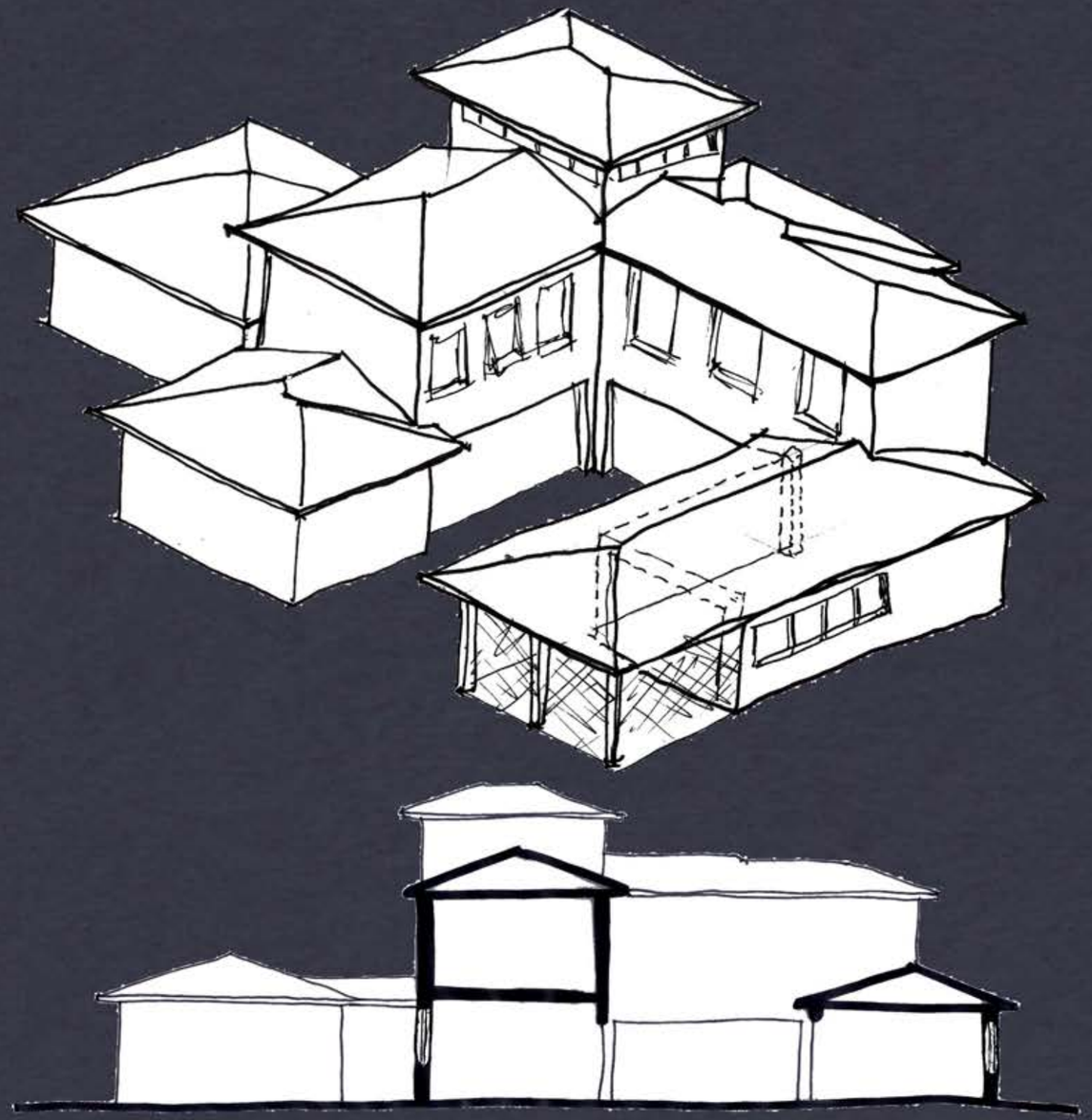


- “Stove-Pipe” shared drive allows for garage on southern exposure
- Traditional style facade, in typical Olympia kit-of-parts
- Typical 39’-10” Splendido Unit width
- Narrow Architectural Elements for light and views
- Deep porches on south facade provides shading and out door living space.
- Overhang to be increased to 1’ to provide more shade to building during Summer

Splendido Collection: South: “Solaria”

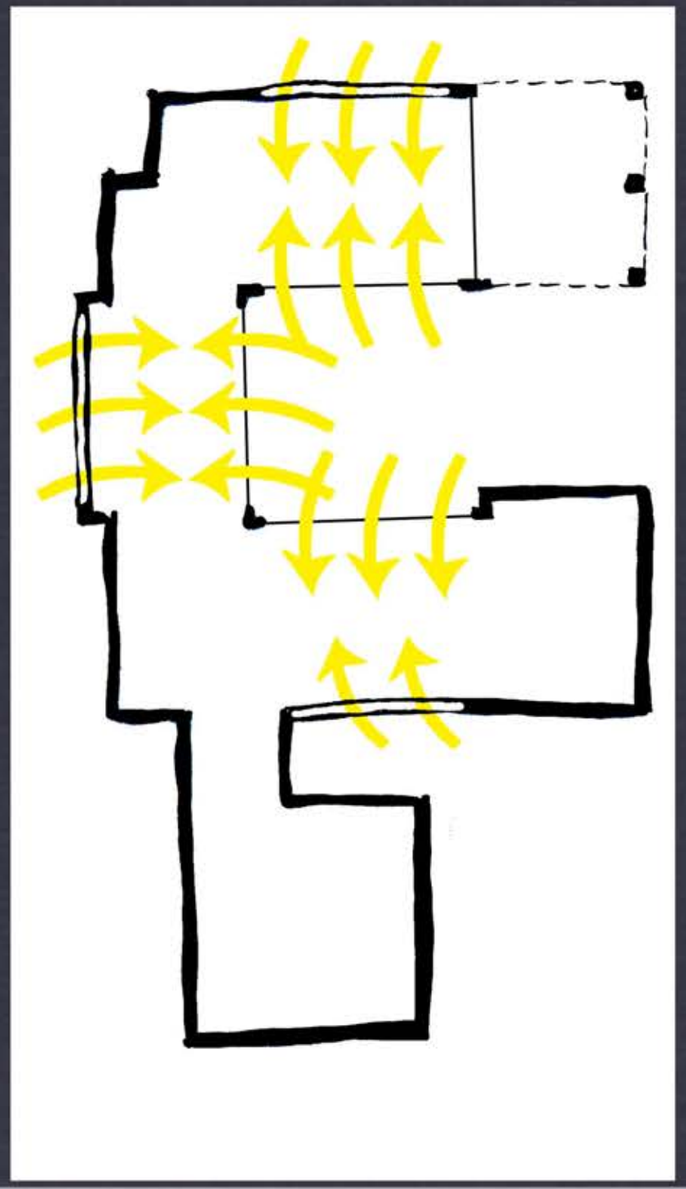
SYNTHESIS: SITING STRATEGIES: OLYMPIA, MINTO COMMUNITIES

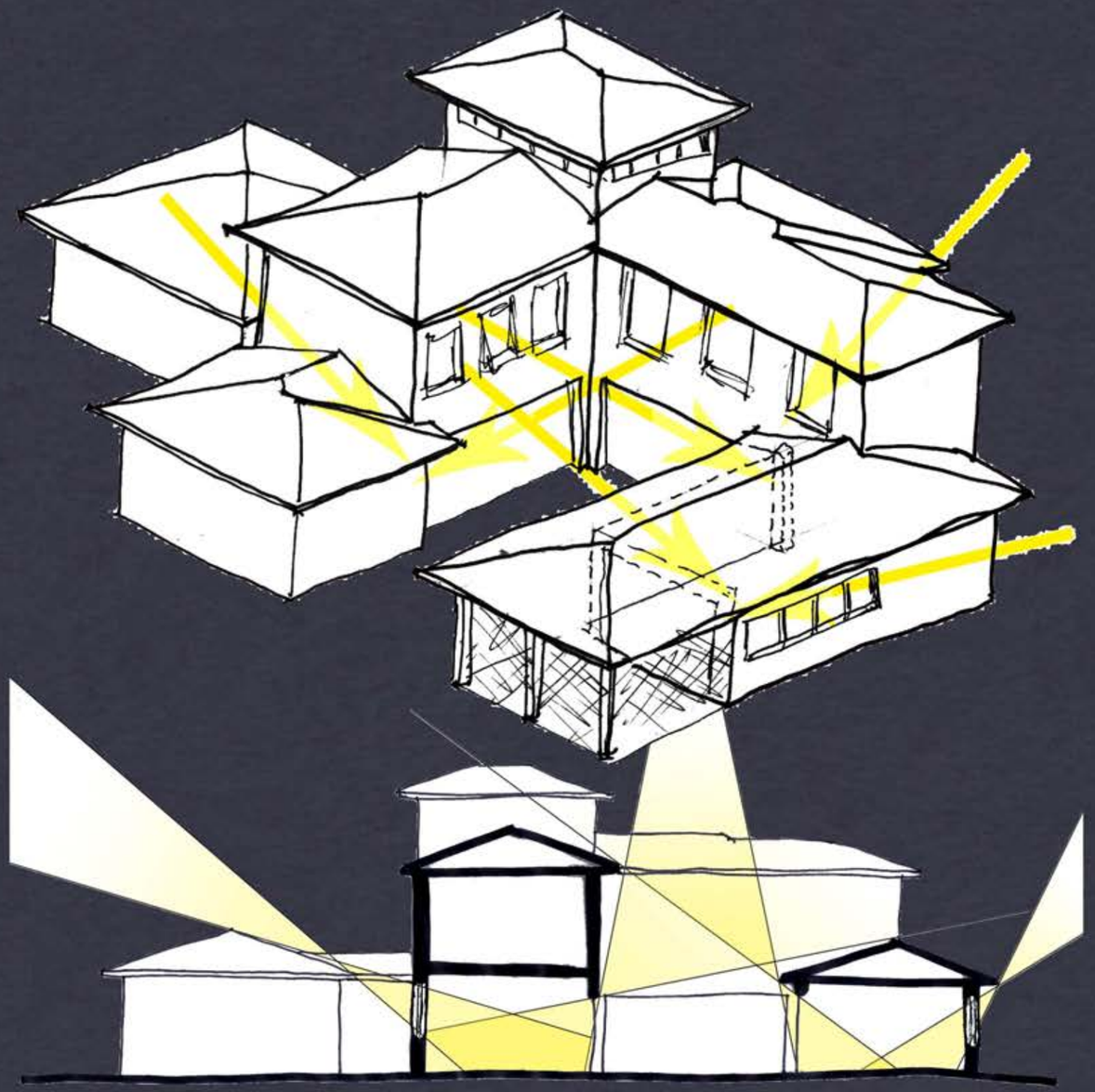




Initial Parti Study

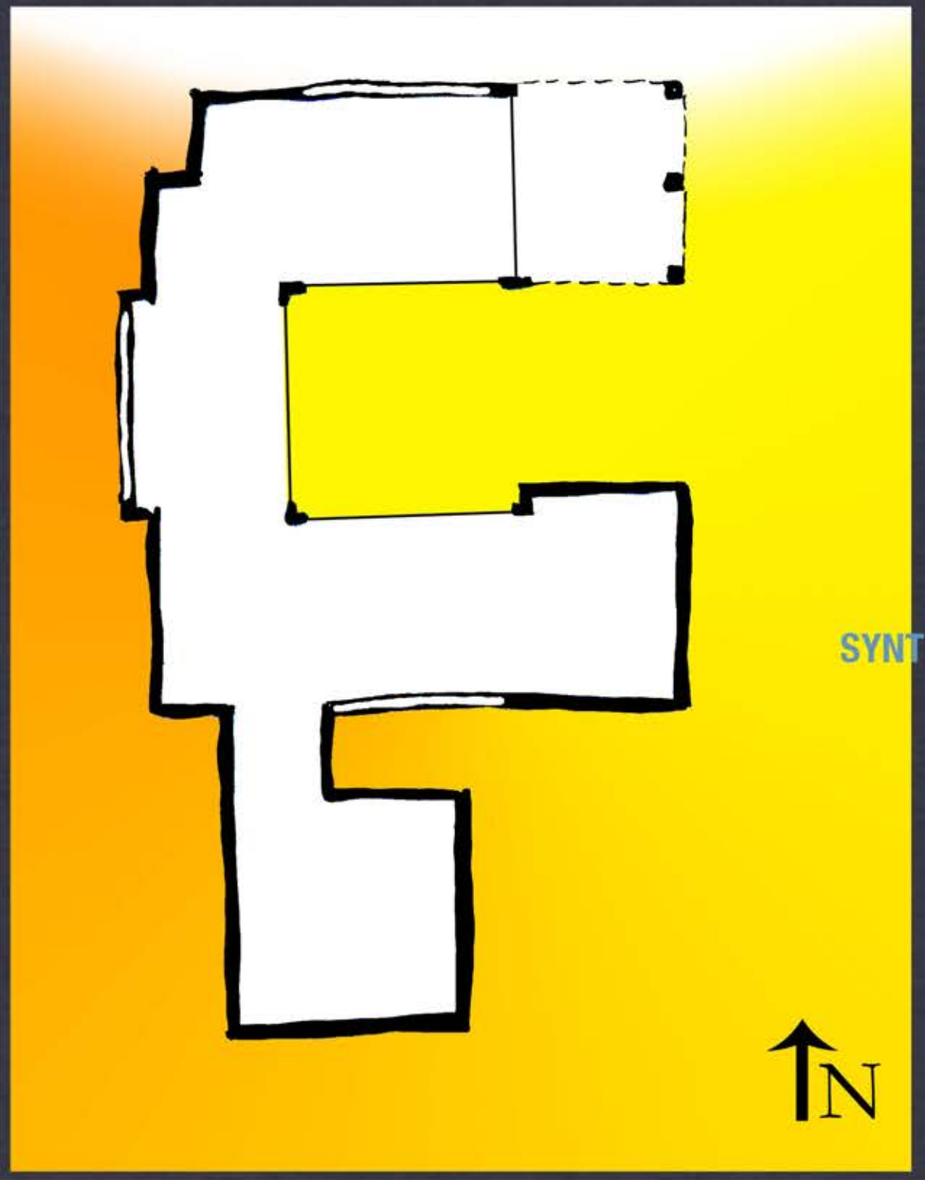
SYNTHESIS: ARCHITECTURAL STRATEGIES

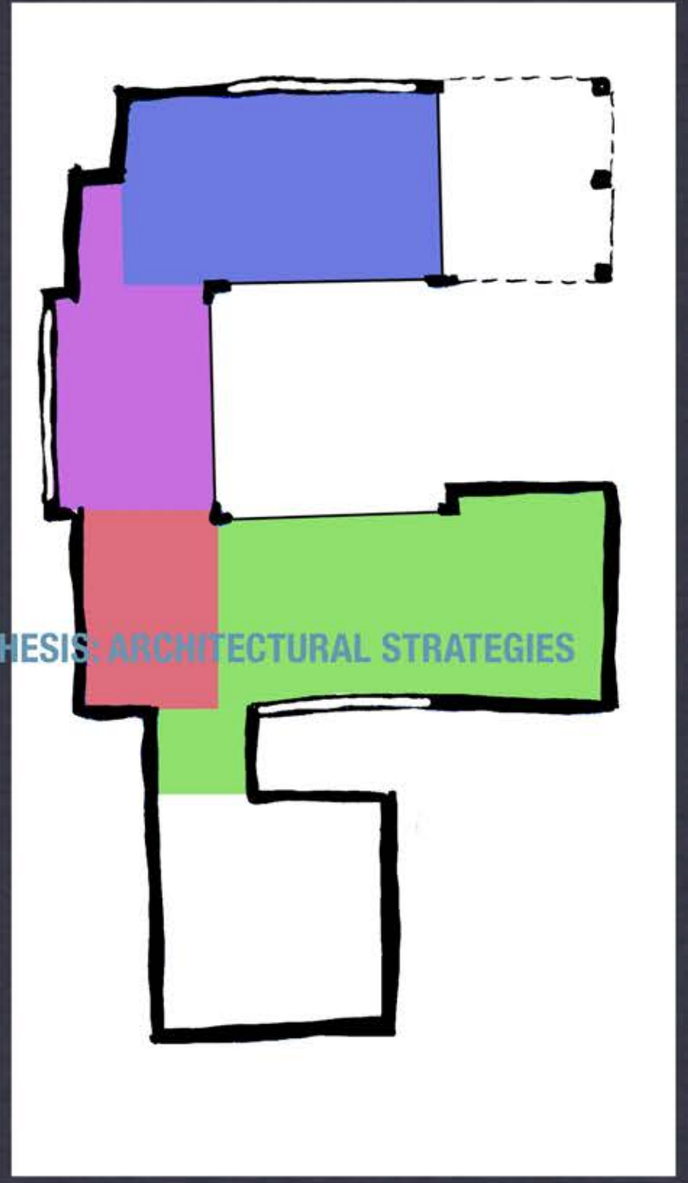


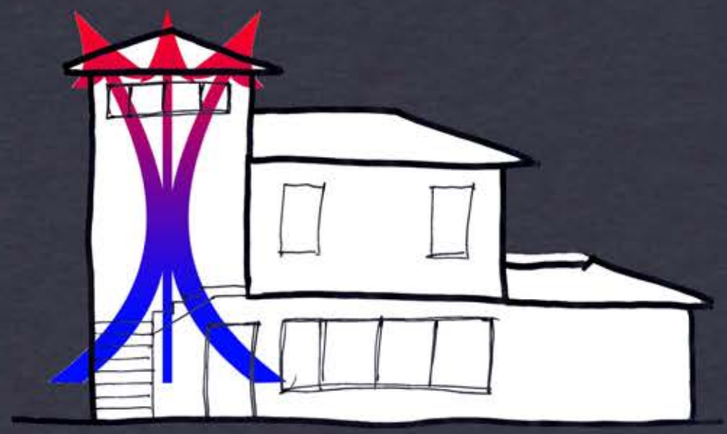


Lighting Parti

SYNTHESIS: ARCHITECTURAL STRATEGIES

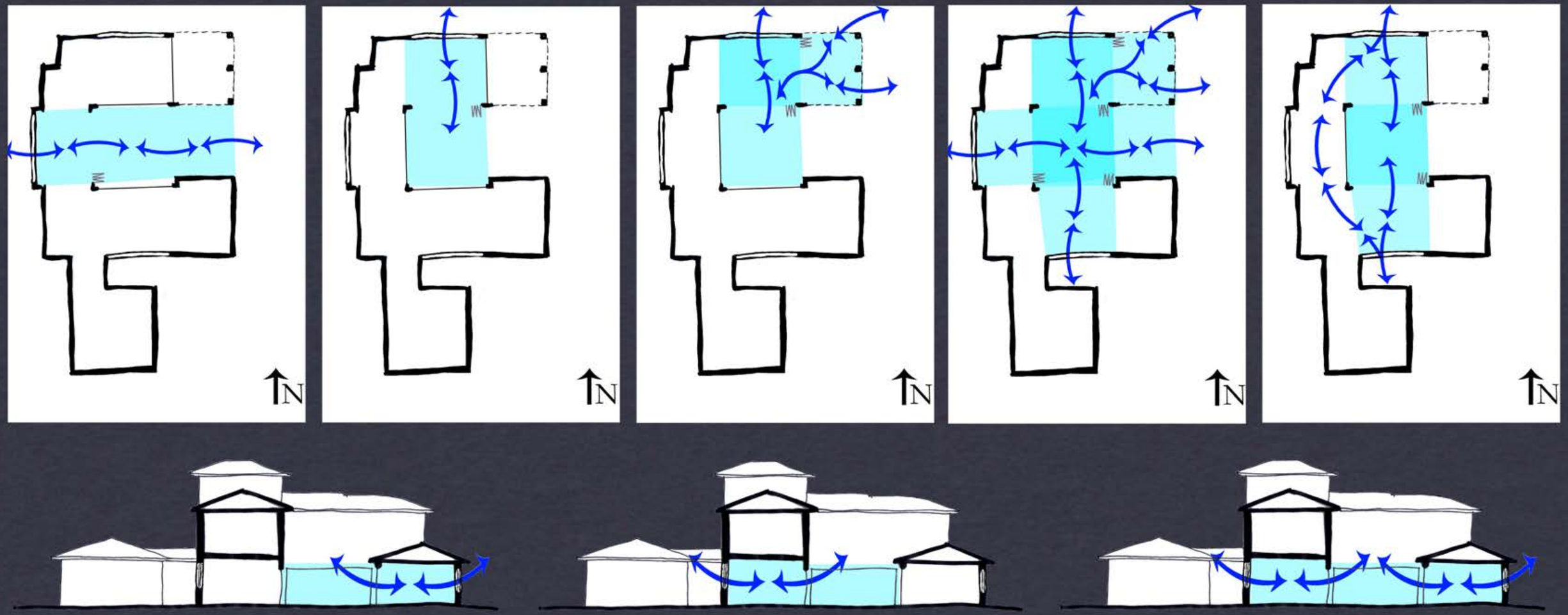






Environemental Parti

SYNTHESIS: ARCHITECTURAL STRATEGIES



Cross Ventilation Parti

SYNTHESIS: ARCHITECTURAL STRATEGIES

**PASSIVE DESIGN FEATURES &
GREEN TECHNOLOGY**

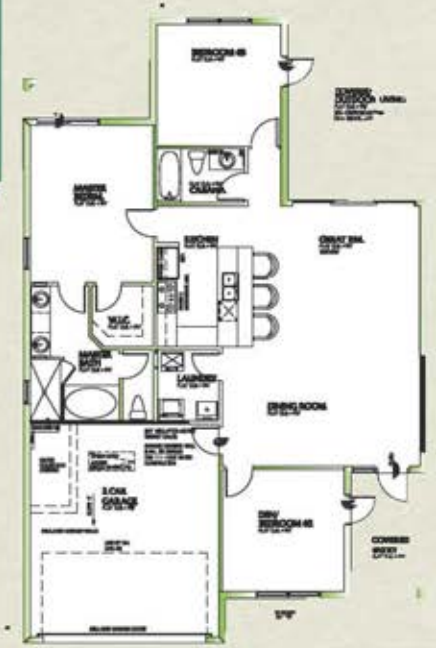
1. COMPARTMENT DESIGN FOR DUAL AC ZONES – CENTRAL AND DUCTLESS IN ROOMS
2. MORE OUT DOOR LIVING – LESS ENERGY USE
3. CROSS VENTILATION FOR BETTER AIR QUALITY
4. OPEN DESIGN TO ALLOW LARGER LIVING AREA
5. SUN SHADING DEVICES AND DEEP OVERHANG AT OPENINGS
6. EXTREME INSULATION FOR BETTER RATING-COMFORT TEMP.
7. SOLAR PANEL FOR ADDITIONAL ENERGY GENERATION
8. TANKLESS WATER HEATER SYSTEM-CONSERVE ENERGY AND WATER
9. DUAL FLUSH TOILETS – CONSERVE WATER USAGE
10. RAIN WATER COLLECTION CISTERN FOR BANEARY USE, IRRIGATION, EXTERIOR WASHING
11. SOME PERVIOUS PAVERS AND SAND FOR ON SITE WATER RETENTION
12. SUSTAINABLE RESOURCES AND MATERIALS- BAMBOO FLOORING, RECYCLED MATERIALS CONSTRUCTION
13. SUSTAINABLE FURNISHINGS – GREEN WOVEN WOOL, RECYCLED FABRIC
14. INSULATED GARAGE DOORS AND WALLS FOR MORE COMFORT TEMP.
15. SOME PERVIOUS PAVERS AND SAND FOR ON SITE WATER RETENTION

**OLD MODEL
AREA CALCULATIONS**

LIVING AREA – AC	1,480 S.F.
COVERED PATIO	225 S.F.
COVERED ENTRY	75 S.F.
GARAGE AREA	430 S.F.
TOTAL AREA	2,394 S.F.

**NEW MODEL
AREA CALCULATIONS**

LIVING AREA – AC	1,488 S.F.
COVERED PATIO	346 S.F.
COVERED ENTRY	92 S.F.
GARAGE AREA	430 S.F.
TOTAL AREA	2,356 S.F.



BEFORE

AFTER

Eco-Modernism

SYNTHESIS: TECHNOLOGICAL STRATEGIES: NEW ARCHITECTURAL DIRECTIONS

TYPICAL BUILDER FRONT ELEVATION

BEFORE

AFTER FRONT ELEVATION

SITE ORIENTATION

SITE ORIENTATION

OUTDOOR LIVING

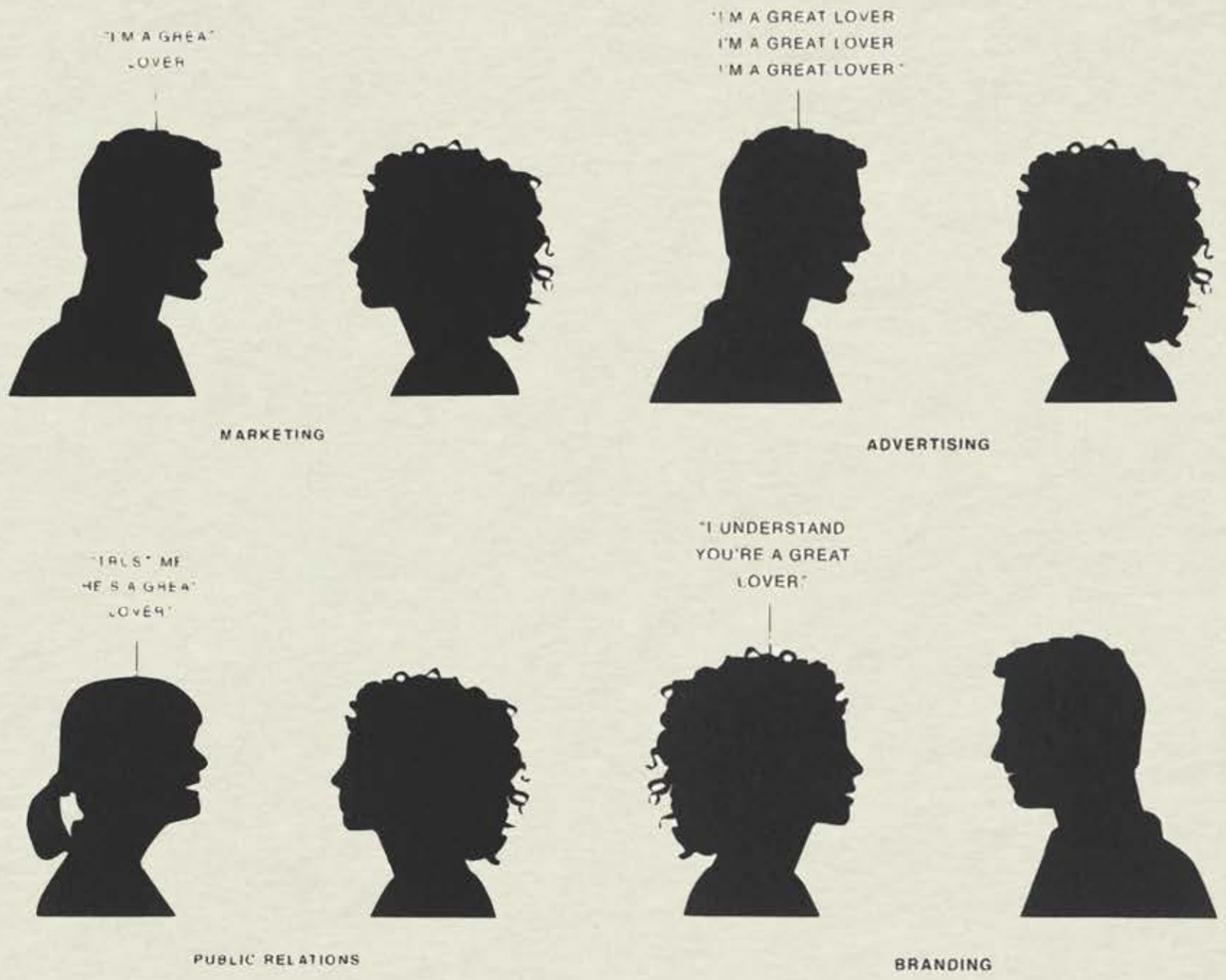
OUTDOOR LIVING

Eco-Modernism

SYNTHESIS: TECHNOLGICAL STRATEGIES: NEW ARCHITECTURAL DIRECTIONS

Conclusion

- ‘Green’ or ‘Sustainable Design’ could be the next wave of architectural design in South Florida.
- Opportunity to to lead a green renaissance in South Florida through the introduction of sustainable concepts through our builders, in the form of ZERO DOLLAR net cost increase.
- Further development of the Affiniti Brand.



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