



**Neighborhood Analysis & Improvement Ideas**  
**El Montevideo Neighborhood**



# El Montevideo Neighborhood

## Neighborhood Analysis & Improvement Ideas



College of Architecture and Landscape Architecture

The University of Arizona

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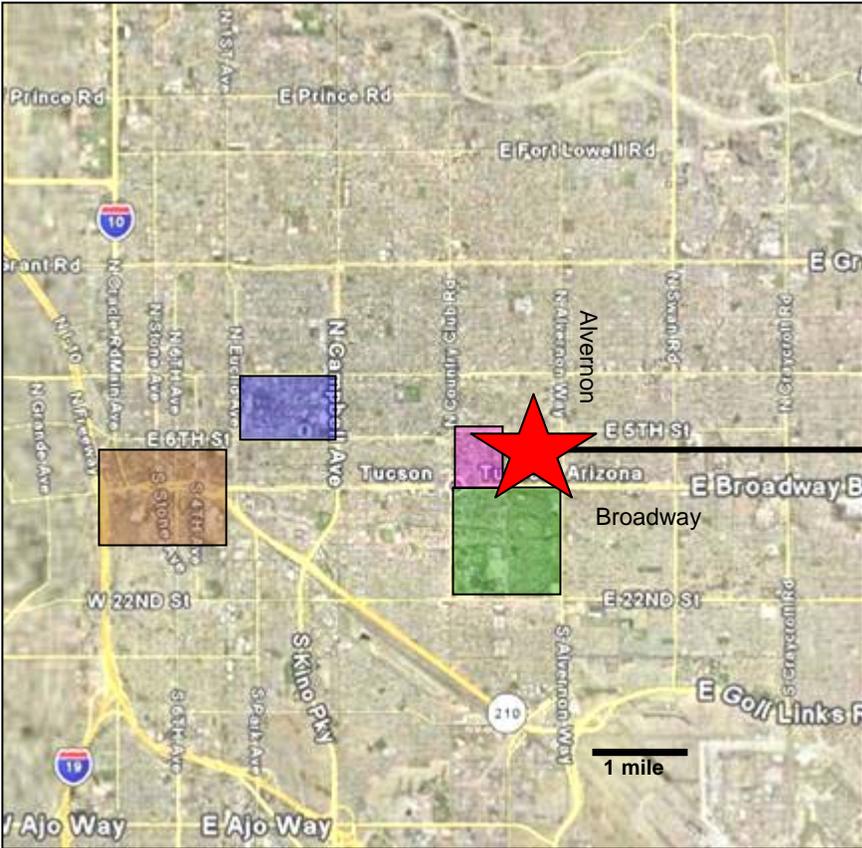
The Drachman Institute is the research and public service unit of the College of Architecture and Landscape Architecture at the University of Arizona, dedicated to the environmentally sensitive and resource-conscious development of neighborhoods and communities. The Drachman Institute dedicates its research and outreach activities to the proposition that housing is the building-block of neighborhoods, and neighborhoods are the building-blocks of communities.

Support funding for this project was provided in part by the Cooperative Extension Program of the College of Agriculture and Life Sciences.

# Project Scope

1. Analyze neighborhood issues & opportunities
  - context
  - neighborhood character
  - street width
  - traffic study
  - street functions
  
2. Meet with El Montevideo Neighborhood Association. Discuss neighborhood concerns and ideas. December 12, 2006
  - speeding traffic
  - cut-through traffic
  - drainage & erosion
  - landscape improvements
  - improved walking and walkability
  - road conditions
  
3. Provide a concept document (this book: El Montevideo Neighborhood Analysis & Improvement Ideas) that illustrates ideas for neighborhood improvements.

# City Context



El Montevideo Neighborhood is centrally located at the northwest corner of Alvernon & Broadway, a 3 mile bike ride to downtown and the University of Arizona. The neighborhood benefits from close, walkable destinations: a movie theatres, El Con Mall, Reid Park and Zoo, a dog park, golf course, walking loop and more.



**El Montevideo Neighborhood**

***Design Implication:***

Improve internal walking conditions and strengthen connections to walking and biking opportunities outside of the neighborhood.

# Neighborhood Character



**Historically significant architecture**  
**Native desert landscape**  
**Narrow, curbsless streets**



# Street Width



El Montevideo has narrow, light-colored streets, with generous 19 foot shoulders on each side. Curbless streets and ample, vegetated shoulders, already provide the bones of an excellent walking environment.



Ft. Lowell Historic Neighborhood, a naturalistic walking path under a street tree canopy.

Close-up of stabilized walkway used in Ft. Lowell, ADA compliant.



Colonia Solana Neighborhood, bringing the Sonoran desert to the edge of narrow streets.

### *Design Implication:*

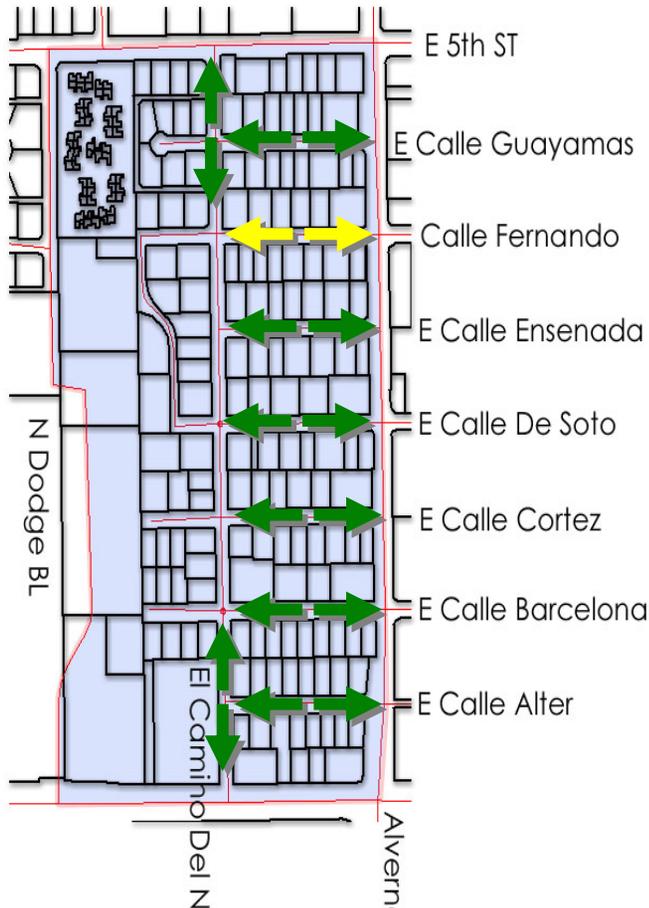
Reinforce existing aesthetic using natural materials for pathways and increase vegetative cover using native Sonoran desert plants.

# Traffic Study Speed

A traffic study provided by the City of Tucson in 2005 indicates that over one quarter of all cars traveling on Calle Fernando during the test period were traveling in excess of the 25 mph speed limit.

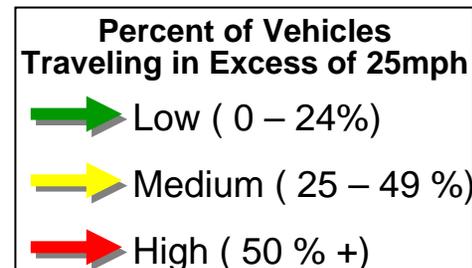


Calle Fernando, looking east.



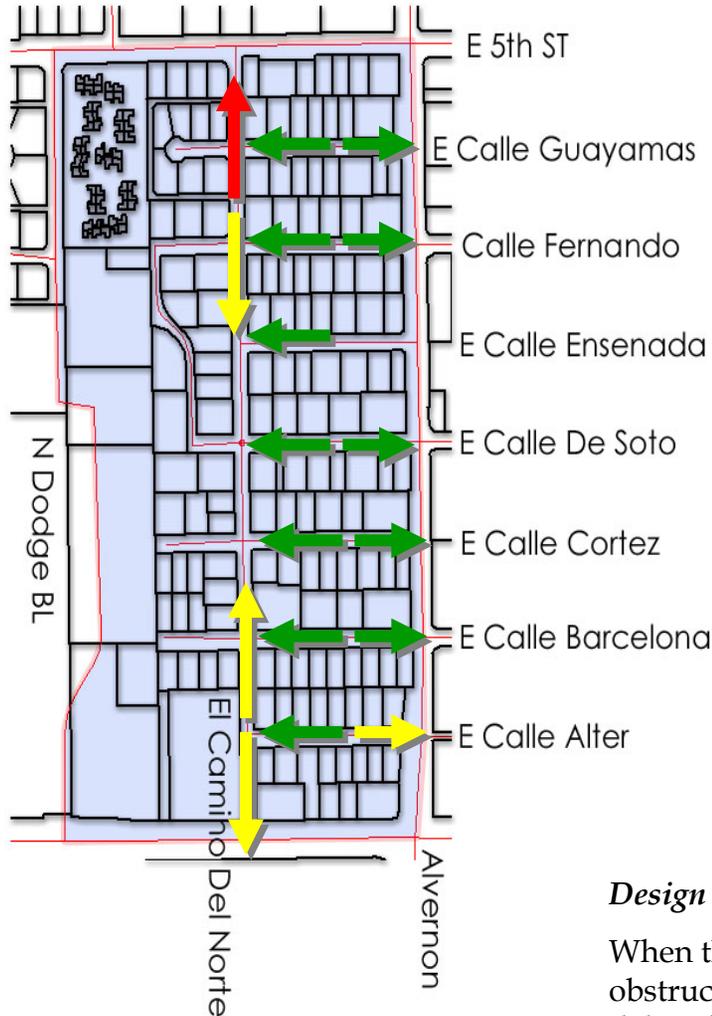
## Design Implication:

The long, unobstructed view down Calle Fernando (here looking from west to east), encourages speed. A traffic circle at the intersection of Calle Fernando and Camino del Norte would help calm traffic on both streets, in both directions.



# Traffic Study

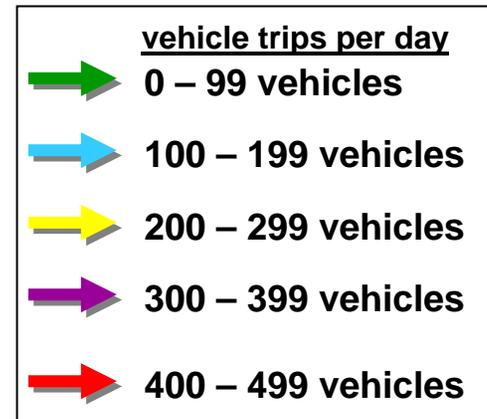
## Volume



Residential traffic engineering standards (Urban Land Institute 2004) attribute 10 car trips per household, per day (5 round trips), for each home in a neighborhood.

Applying this standard to El Montevideo with approximately 130 households, traffic volume within the neighborhood does not appear to be excessive.

However, residents remain frustrated with what they believe to be unacceptable speed and volume of traffic through their neighborhood.



### *Design Implication:*

When the sight-line down the length of a roadway is visually obstructed, drivers tend to believe they will suffer additional delay if they choose to leave the arterial and cut through the neighborhood.

# Traffic Calming

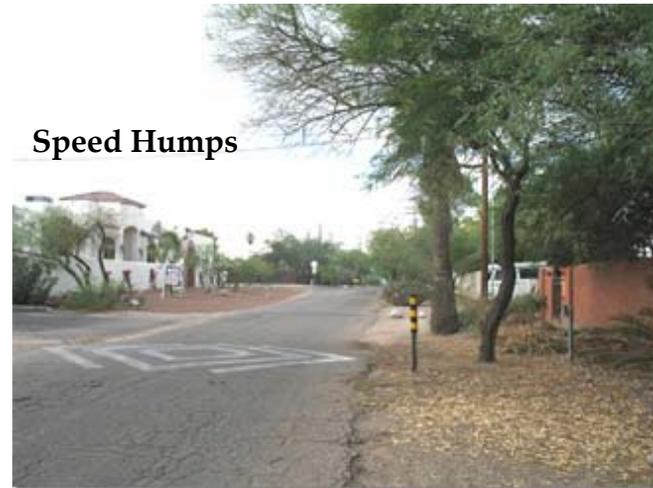
Reducing traffic speed & volume



**Traffic Circles**

Visual barriers are more effective at both decreasing cut-through traffic and slowing speed. The traffic circle shown at right is a successful example of this, and is also an attractive addition to the neighborhood.

**Speed Humps**



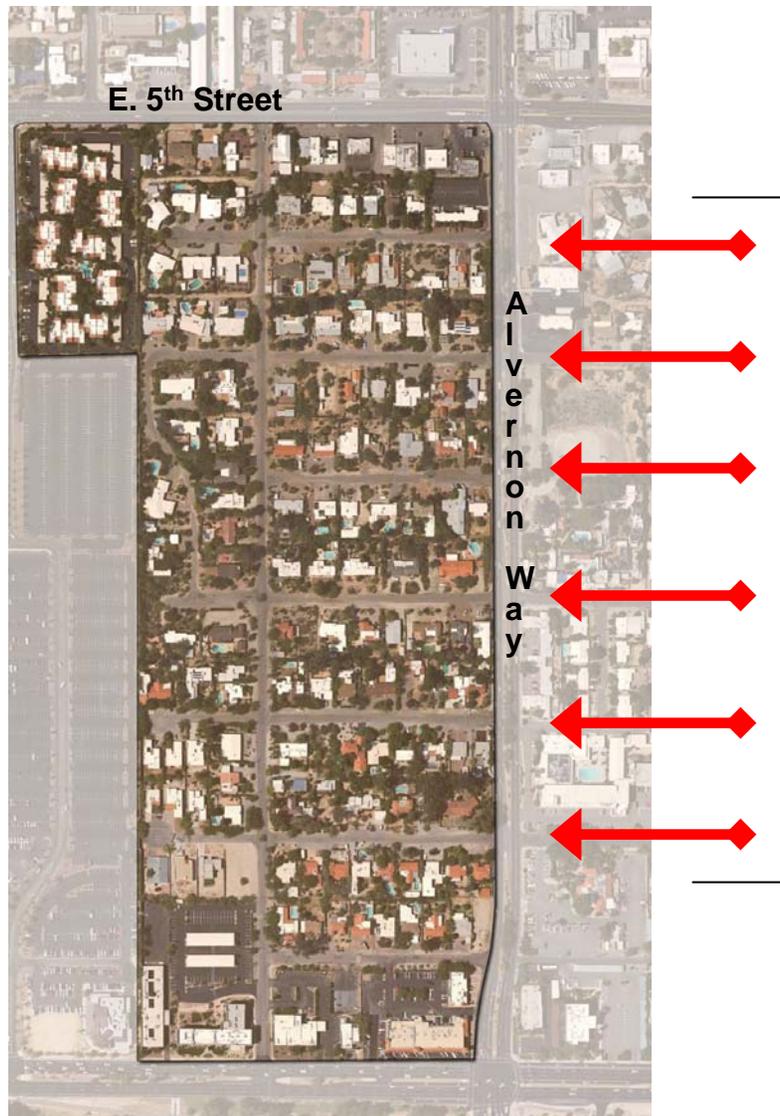
Speed humps are one of the least effective methods of calming traffic, though they are one of the least expensive methods. Humps are usually installed in a series along the street, and even then, drivers tend to brake immediately before hitting each hump and accelerate immediately upon clearing it. Residents living in front of humps often complain of excessive road noise.



**Chicanes**  
Blenman-Elm Neighborhood

Chicanes are a series of alternating bump-outs emanating from the side of the road, into the roadway. The driver experiences an s-like drive as the roadway meanders around the chicanes, alternating along opposite sides of the road. Though not optimal for bicyclists, chicanes are effective at traffic calming and an attractive addition to the neighborhood.

# Traffic Noise



Significant traffic noise enters neighborhood streets from Alvernon. Solid walls provide the most effective sound buffer, while vegetation provides only a visual block.



This gateway entrance located across Alvernon, at the Lodge on the Desert, reduces street noise entering the site.

## *Design Implication:*

Sound walls at the entrance to neighborhood streets would provide significant reduction of street noise while providing a gateway experience that could incorporate signage and/or art.

# Drainage

El Montevideo has inadequate infrastructure to handle local runoff. This causes ongoing soil loss and road damage:



This is the look of a natural drainage system in Ft. Lowell Historic Neighborhood.



Soil and organic materials are washed away from the neighborhood during storm events. Neighborhood streets are in disrepair due to inadequate drainage.



## Design Implication:

Retain rainwater through natural drainage systems, simultaneously enhancing pedestrian environment and neighborhood aesthetics while minimizing:

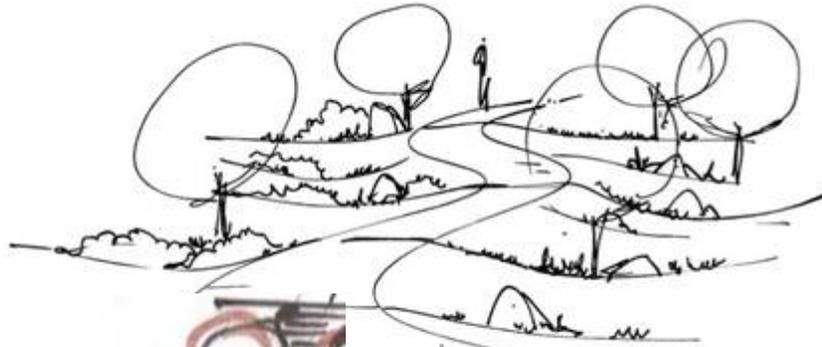
- Erosion
- Loss of soil & material
- Lost water resources
- Damage to road



Available rainfall should be maximized as a resource that supports street trees and vegetative cover, rather than treated as a nuisance or hazard, directed offsite at every opportunity.

# Natural Drainage Systems

## Drainage/Planting Basins



Sunken planting basins, in **Dunbar Spring Neighborhood**, support vegetation and wildlife on available rainfall alone.



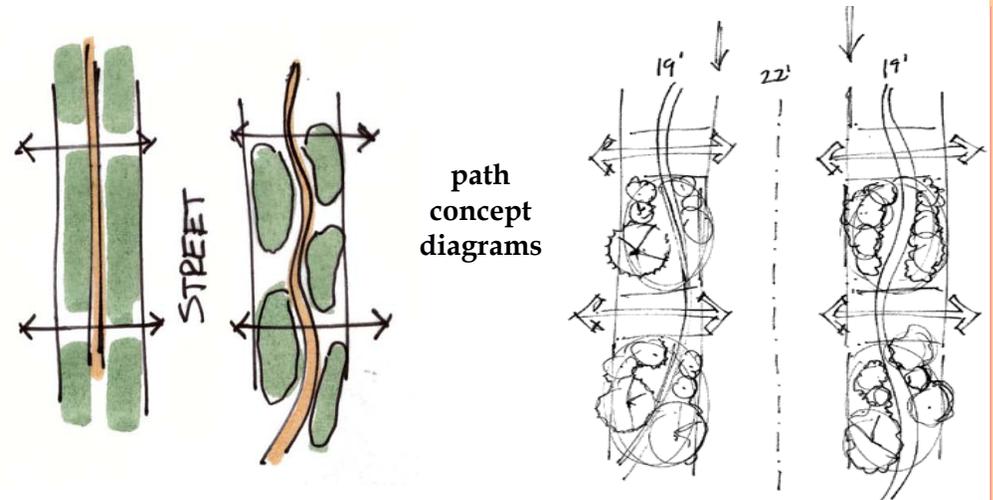
Follow the flow of water to determine placement of retention/planting basins along neighborhood streets.



# Camino del Norte Walking Path



Camino del Norte walking path



The rendering at left proposes a stabilized, decomposed granite pathway, 5 feet wide, crowned in the center to drain into adjacent planting basins.

The path meanders to take advantage of existing, mature plantings, and to provide visual interest to pedestrians.

Boulders are strategically placed to buffer pedestrians from oncoming automobiles and provide occasional seating opportunities along the route.

Additional street trees (blue palo verde, for example) provide a visual block to overhead power lines along the east side of Camino del Norte.

# Street Activity

Neighborhood streets are valuable public spaces and are under-utilized by the single use of automobile access to and from houses. Activities and nodes within the street right-of-way make better use of public space while improving safety, community and recreational opportunities within the neighborhood.



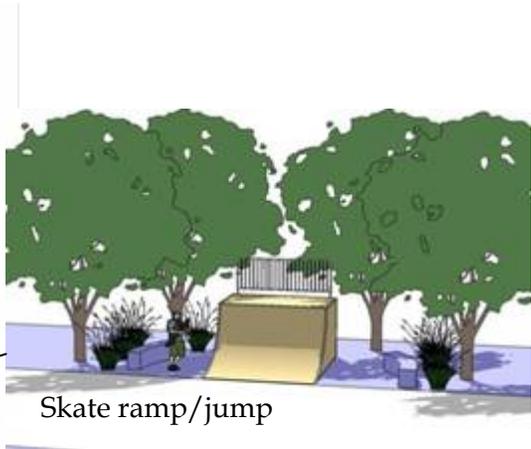
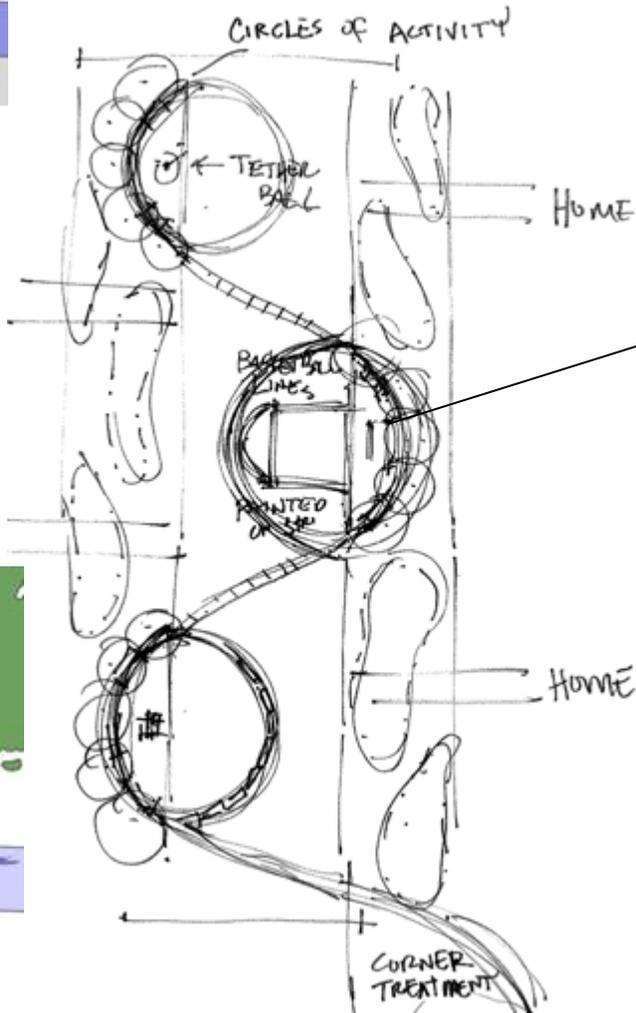
Basketball court



Street seat, Ft. Lowell Historic Neighborhood.



Street grill



Skate ramp/jump



Clustered mailboxes encourage neighborhood interaction and reduce the impact of the automobile use on street shoulders.

# Dead-End Streets & Corner Opportunities



Dead-end streets: Calle Barcelona, left; Calle de Soto, below.



The addition of a simple bench would create a nice rest-stop for neighborhood walkers.

Lifeless dead-end streets and barren street corners can become attractive and functional elements of neighborhood life with a relatively small investment.



Calle Fernando, before corner treatment.



West University Neighborhood



Ft. Lowell Historic Neighborhood, above & below.



Calle Fernando at Camino del Norte, after hypothetical corner plantings & bench.



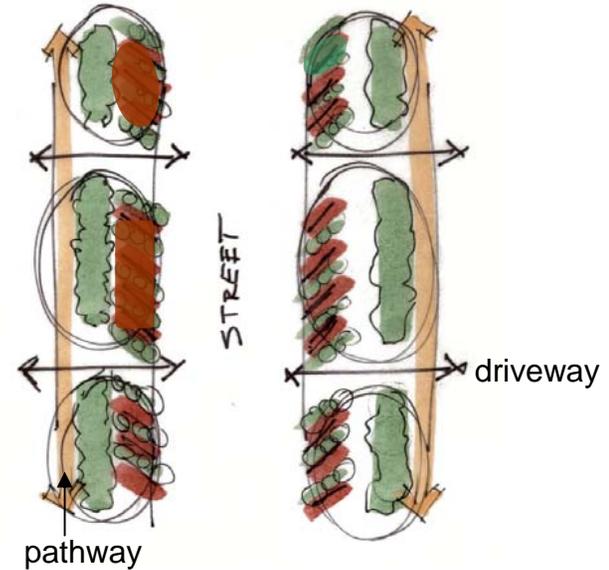
Parking Clutter dominates this streetscape in el Montevideo.



Two examples of neighbors' efforts to plant and organize parking along the road shoulder.

## Parking Clutter & Mitigation

Concept diagram for organizing parking with interspersed plantings and streetscape elements.



Haphazard parking and heavy vehicular use of shoulders contribute to drainage problems, create dust and can appear cluttered and unsightly.

### *Design Implication:*

Designated parking areas, clearly distinguished by delineated planting realms would improve the parking, drainage and aesthetic function of road shoulders.

# Summary: Design Ideas



**New Traffic Circle**  
Calle Fernando

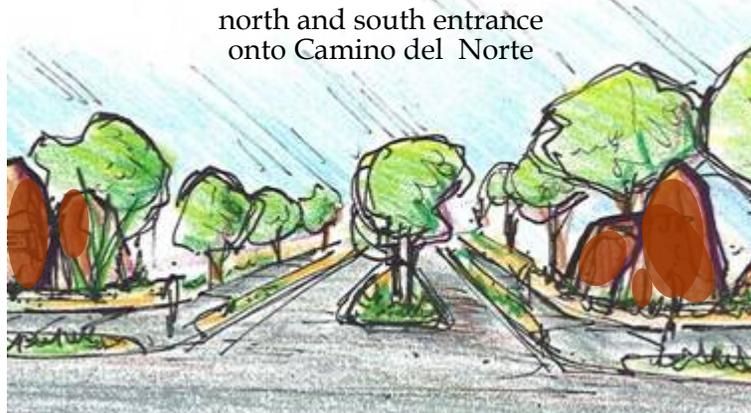


**Gateway Signage/Sound Walls**



**Gateway Medians**

north and south entrance  
onto Camino del Norte



# Summary: Design Ideas

Through-out the neighborhood, as needed:



## Pinch Points

Choke-downs of the road width through use of **bump-outs** or chicanes, are effective at calming traffic. These protrusions into the roadway can happen at intersections or mid-block. **Chicanes**, a series of alternating bump-outs, create an S-shaped roadway.



## Natural Drainage

Natural drainage solutions are needed throughout the neighborhood. Natural drainage simultaneously creates a lushly vegetated environment.

Drainage projects should be instituted where soil and material losses are most severe.



# Porous Walking Surfaces

## Examples



*“Great streets do not just happen. Overwhelmingly, the best streets derive from a conscious act of conception of the street as a whole. The hands of decision makers are visible.”*

Allan B. Jacobs

