Keeling Neighborhood Greenway Project
Preliminary Design Ideas

prepared by Katie Gannon and the Drachman Institute, January 2006.
Greenways

*A Greenway is a linear open space for that is protected and managed for recreation, connectivity and conservation.*

* Greenways improve urban recreational opportunities for walking, jogging, biking and hiking.
* Greenways provide vital ecological functions by maintaining natural processes, which support lush vegetation and urban wildlife.
* Greenways reduce public costs by decreasing infrastructure maintenance costs.
* Greenways increase private investment by attracting new development.
* Greenways support social, cultural, educational, historical, transportation, and recreational experiences.

source: Charles E. Little, *Greenways for America*, 1990
**Design Opportunities**

**Transportation**
Establish walking and bicycling as safe and viable local transportation choices.

**Recreation**
Provide active recreation opportunities that are accessible and proximate to the Keeling neighborhood.

**Natural Systems**
Enable natural drainage systems to function, reducing runoff, erosion, and pollution, as well as sustaining plant life.

Install native plantings, which support native bird populations, reduce ambient air temperature, provide shade for human comfort, and help the local climate thrive.

**Safety**
Reduce crime and increase actual and perceived safety within the neighborhood using Crime Prevention Through Environmental Design Techniques or CPTED.

**Education**
Demonstrate the use of native plantings in the streetscape, innovative interventions on a neighborhood scale, and creative solutions to increasing physical activity.

Teach local residents, other neighborhoods, and other cities about the benefits of enlightened neighborhood design.

**Community**
Create opportunities for social encounters, establish community gathering spaces, and develop an attractive, unique neighborhood identity.

Establish a sense of ownership in neighborhood improvements through community involvement in design, implementation and maintenance of project elements.
1. Pedestrian Streets

All neighborhood streets should serve pedestrians. These streets provide shade and pedestrian-scaled design details for both human comfort and delight. **Pedestrian streets**, should especially connect to popular local destinations, for example, they could run parallel to arterial roads where a concentration of destinations occur. This segregates users from the harsh walking environment along the arterials.

2. Bicycle Boulevards

**Bike boulevards** should accommodate bicycle traffic while also permitting parallel use by local automobiles. Bicycle travel should have the right-of-way over cars for the majority of the route. Safe and efficient arterial crossings are essential. Consideration for bicycle-scale design features such as a tree lined street, segregation of pedestrian activity, defined parking. Also bicycle storage facilities are essential to support bike activity.

3. Enhanced Intersections

Important gateway **intersections** located in areas of high density and high activity are transformed by mere surface treatments, corner treatments, or both. These street plazas would serve as gathering places and recreational areas with a unique opportunity to assert community character and identity through art and design.
4. Shared Streets

Short streets of high density and with small shoulders can be made into street yards, where benches, play objects and plantings are placed on the street surface and automobiles must weave in and out at slow speeds. This greatly enriches the pedestrian environment and the street itself becomes recreational space. This is not anti-car. Residents still have automobile access to their dwellings.

5. Pocket Parks

Small recreational pocket parks should be placed in locations with high foot traffic, where amenities are lacking and space permits. Facilities might range from a children’s playground, a basketball court, an artwalk, a bench under a shade tree, or a shady grove of trees with picnic tables and benches.
I. Pedestrian Streets

Streets that support pedestrians should also support trees, especially those native to the arid Southwest.

Pedestrian streets should have pervious surfaces sunken basins so rainwater can be captured and absorbed for the benefit of plantings.

Pedestrian streets simultaneously support thriving native vegetation and bird life and create inviting human environments.

A good starting point for the retrofit of Keeling’s auto-dominated streets would be to improve streets that run parallel to the surrounding arterials. This would give pedestrians comfortable access to a concentration of destinations in addition to strengthening the connections to Keeling Elementary School.

runoff is directed to vegetated areas

neighborhood streets become neighborly recreational places

plantings on both sides of the sidewalk maximize shade and comfort
1. Meandering Roadway: This design reclaims 8 feet from each side of the street. Combined with a loosely curving 20-foot-wide road, the right-of-way becomes a lush natural area with activity clusters where mailboxes, garbage cans, overflow parking and lighting are grouped. The road becomes an attractive and interesting, and safer environment; calmed traffic entices residents to get out and enjoy their neighborhood.

2. Linear Pedestrian Park: This alternative reclaims 14 feet of roadway from one side of the street, which, combined with the existing 12-foot back-of-curb, creates a generous 26-foot-wide greenbelt. This linear pedestrian street would support a variety of activities, featuring an urban trail of compacted decomposed granite as well as benches and picnic tables. The greenway would significantly improve the visual quality of the neighborhood, reduce ambient temperatures, and provide habitat for native birdlife.
2. Bicycle Boulevards

A bicycle boulevard requires that through traffic be minimized and the remaining traffic be slowed. A narrow street is one of the most effective ways to calm traffic. Defined parking areas by a change in surface material (pervious block, for example) also improve bicycle safety. At the same time, parked cars are less vulnerable and protected by shade-giving street trees.

Garbage collection areas, mailboxes, parked cars, and night lighting are grouped together, creating activity clusters—a principle of crime prevention design (CPTED). Asphalt is reduced by 12 feet with the new combination parking and planting lane. The sidewalk, located on only one side of the street, is shaded and enhanced by new plantings on both sides of the walk.

Bicycle boulevards safely accommodate pedestrians, local automobile traffic, as well as bicycle through-travel.

Activity Clusters

“Eyes” and activity are put back on the street by concentrating activity in nodes; parking and mailbox clusters provide lighting and social spaces.

Shady Seating Area

Benches in planting zones offer a linear, 12-foot-wide, park-like recreational space under the tree canopy.

Pervious Surface

Many materials will support the weight of automobiles while permitting absorption of rain water and runoff.

A narrowed street slows cars and discourages through traffic, improving safety for bicyclists.
Proposed Bike Boulevards: Fontana and Blacklidge

Fontana (which runs north to south) and Blacklidge (east to west) were selected as bicycle boulevards because they are currently designated bike routes and provide good connections to other neighborhoods and destinations outside of Keeling.

A bicycle boulevard offers maximum safety and desirability when it is a continuous route, and when cars driving on all intersecting streets must stop for bicyclists rather than the reverse. Traffic circles work well in this respect because they circulate traffic through intersections in a counterclockwise fashion and allow plenty of reaction time for all parties.

In addition, while automobile traffic on bicycle boulevards must be slowed and through traffic discouraged, conventional calming techniques such as speed humps, textured pavement, and choke points all pose problems for bicyclists. Preferable traffic calming methods are narrowed roadways, traffic circles and bicycle-scale design elements.
3. Enhanced Intersections

By transforming lifeless spaces into desirable places, intersection enhancements give neighborhoods beautiful, refreshing areas that form the heart of the community and provide informal gathering places.

Everyday streets become gateways to a unique and special community. Lackluster, abandoned intersections become notable places, heat is reduced, and there are new opportunities to socialize, play ball in the street, and even play chess or checkers.

One or more enhanced intersections might contain a neighborhood bulletin board, which would further connect residents to one another.
Keeling Elementary School Intersections

Some 40 percent of neighborhood land area is taken up by asphalt-covered streets. Not only is this a wasteful use of land, it is costly to maintain.

Surface treatments transform lifeless asphalt expanses into public spaces, providing both visual and social stimulation for residents.

Streets adjacent to the elementary school easily accommodate school buses, but people’s perception of this hot and ugly pavement can be changed by modifying the road surface. A big, playful painting of a gecko—the neighborhood totem—in the street would have a simple, inexpensive and transformative effect on the intersection.

This project, undertaken by the school community, would resonate strongly with children and connect them to their neighborhood and their street.

A labyrinth in the intersection of a Portland neighborhood.
4. Shared Streets

Shared streets, or street yards, subordinate automobiles and give preference to human activity. Because the construction of these streets includes a variety of materials and facilities, they tend to be relatively expensive. They work best on short, dense streets, or in segments on longer streets. While cars have access to each home, the street is primarily a pedestrian space for play, socializing, eating, and walking. In this diagram, there are large group areas as well as smaller, more intimate settings; overflow parking is in designated areas.
This bird’s eye view demonstrates how the character of the entire roadway and even the neighborhood is changed by isolated use of street yards rather than continuous use. The street, formerly belonging solely to the automobile, is transformed into recreational and social space, a commodity in short supply in many older neighborhoods.
5. Pocket Parks

Children’s Park

A park installed here on Los Altos, across from a high-density apartment complex, would turn a blighted street corner into a place for children to play and parents to sit and socialize. A sandbox, a climbing feature, some shade, and a swing set would be ideal.
Basketball Court

Potential recreational space already exists within the neighborhood, notably at the termination of Jacinto. This dead-end street, currently an abandoned and lifeless waste of space, is a perfect site for a basketball court. Adding picnic tables, benches, and plantings would fill it with legitimate activity and make it more attractive, and at the same time, answer a crying need for accessible recreational facilities for the neighborhood’s youth.
5. Pocket Parks, continued

Picnic Grove

In this design, Alturas and Geronimo boast a shady grove of trees for the weary, hot pedestrian, utilizing the margins of property owned by the city. The entire intersection is made whole with bump-outs reaching out to meet one another. This is an area of relative high density—currently, several multi-family properties in close proximity have little public (or private) space in which to congregate and play.
Art Walk

Currently, this gritty urban corner, littered with abandoned shopping carts, is decidedly lacking in the aesthetics department, but in a recent neighborhood survey it was noted as the most frequented local destination. Art would stimulate the corner and those who pass it with thoughtful social commentary and topics of cultural meaning. In an improved Keeling, portraits might be painted high on the corner’s walls, above graffiti’s reach, changing the awareness of the pedestrian while discouraging vandals. These particular walls are so large they could even accommodate poetry and verse.

Because they are linear in form, neighborhood right-of-ways offer excellent opportunities for a variety of pocket parks, transforming leftover, under-utilized, and often wasted space into community treasures.
Incremental Approaches to Neighborhood Transformation

The process of transforming the neighborhood is additive; every intervention provides more opportunity than existed before. Neighborhood improvements can be accomplished in segments, over time, from multiple funding sources. Even small, isolated interventions that create pedestrian areas and recreational hot spots will have a strong impact on the feel of the neighborhood and begin the process of reclaiming the streets.

Bump-outs at corners of intersections, coupled with new trees and a simple bench will transform the current appearance of the barren and lifeless intersections. Mid-block, a bump-out would provide unexpected visual delight to both motorists and pedestrians alike. Pedestrians will find an inviting way-point to stop and rest in the shade on their walk to errands. A street plaza could have the effect of energizing and mobilizing the neighborhood for additional projects.

Intersection bump-outs physically and visually expand people-space and create a lasting impression on both drivers and pedestrians.

Sidewalks are expensive and, without shade, can be quite warm in the summer. Their presence on both sides of residential streets are usually not necessary, and even where sidewalks are available, residents of Keeling are often seen walking in the roadway (at most times of the day, there is very little traffic in the neighborhood). Thus, though sidewalks are important for wheelchairs, strollers, and the elderly and infirm, alternate pathways that are more naturalistic are less expensive and often create a more interesting walking experience.

An informal path made from decomposed granite stays cooler in the summer, is significantly less expensive to install, and helps support the adjacent trees.
Conclusion

*Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has.*

*Margaret Mead*

Medical researchers and healthcare practitioners across the nation are sounding the alarm, exhorting us all to collaborate across disciplines and lead the way out of this crisis of physical inactivity, obesity and the myriad associated problems that gravely affect our society as a result of live and work environments that discourage physical activity, community and health.

Thomas Kuhn, the legendary physicist, wrote in 1962 that new paradigms are created by those who are “little committed by prior practice to the traditional rules of normal science, are particularly likely to see that those rules no longer define a playable game and to conceive another set that can replace them.” Multiple sectors must overhaul their thinking for society to begin to address the alarming trends in public health; the old rules don’t work anymore. There is much urgent work to be done on many fronts.

This project is a quest to create a neighborhood environment that supports health; to better utilize valuable public-owned resources to the benefit of all citizens, and to retrofit existing neighborhood streets to narrow, tree-lined roadways that create comfortable conditions for walkers and cyclists, slow down cars and create a more livable neighborhood.

The proposed designs create an active community environment at home, that allows for safe and easily accessible physical activity, and provides an opportunity for physical activity in daily life through neighborhood sidewalks, trails, parks, plazas and the streets themselves.