

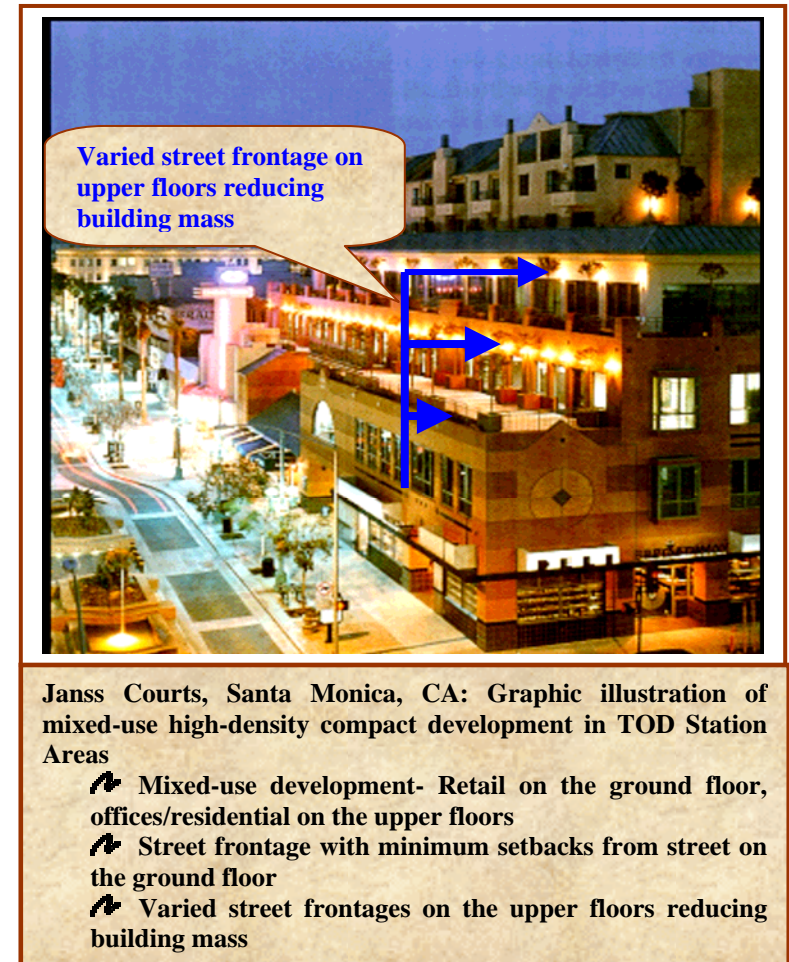
12. Design Imperatives and Illustrations

Integrating new, high-density development into an existing neighborhood needs to be done with care. This section provides design imperatives and illustrations of how this can be done in a high-density, mixed-use environment based on the TOD guidelines. It also provides guidelines for successful transit-oriented development as opposed to transit-adjacent development.

TOD Station Areas

Future development around the TOD Stations should be high-density mixed-use development. Vibrant uses such as retail, restaurants, storefront offices, and live-work units are encouraged on the ground floor, with offices and residential uses on the upper floors. A minimum of 25% of the building width should be ground floor retail/office use adjacent to the streets in the Transit Station Areas, with a depth of tenant space not less than 50 feet. This requirement can be adjusted where demonstrated to be impractical.

Building design should include elements that provide a high degree of articulation of the facades and should minimize the building mass. Variation in heights, variation in setbacks on upper floors, recessions and use of plazas or parks incorporated in the building design can help to break the monotony and add interest to the building.





Market Commons Clarendon, Virginia: A high-density mixed-use (residential above retail) development near transit station



Artisan Lofts on Central- Phoenix, AZ: Illustration of residential development over retail along upcoming light rail line.

TOD Corridor Area

The development in the TOD Corridor Area will be moderate-density residential and mixed-use development. Uses such as retail and storefront offices are encouraged but not required in developments along the TOD Corridor Area. To extend the pedestrian and transit-oriented environment all along Main Street, buildings should front the streets and vehicular access points should be minimized by use of shared access. The main entrance of buildings should front Main Street, with pedestrian connectivity from the building entrance to the nearest pedestrian pathway.



Embarcadero Light Rail Transit, San Francisco: Illustration of mixed-use moderate density development along light rail line.

Intersections in the TOD Corridor Area are expected to be of moderate-density, as compared to nodes around the TOD Station Areas. Elements such as pedestrian amenities, landscaping, awnings and arcades, seating, buildings fronting the street, will enhance the quality of these intersections/nodes and create a pedestrian and transit-friendly environment. The example on the right (AIA, 2005) shows the use of pedestrian pathways, landscaping, increased street frontage, reduced street setbacks and moderate density, mixed-use development to create a more livable environment at moderate-density intersections.



**Illustration of essential elements of pedestrian and transit - oriented development in TOD Corridor Area -
Densification, street frontage development, pedestrian pathways and amenities, shade through landscaping- each makes moderate density intersections along the Transit Corridor more livable**

Design Imperatives

Building Setback from the Street

The setback from the planned right-of-way line in a TOD Station or Corridor Area should be no more than eight feet for all uses. An exception can be made for developments with plazas and parks along the street frontage. Developments that include an outdoor seating area, the street setbacks can be extended to 16' maximum.

Variation in the building setbacks within the limits defined above is encouraged in order to preserve and allow the creative, organic quality presently found in the area.

Building Setback from Adjacent Properties

Setbacks from adjacent single-family residential uses should be a minimum of 15 feet. No setbacks are required for side setbacks, except when adjacent to a single-residential use. In situations when the side yard setbacks are provided, the setbacks should not be less than 5 feet.

Building Height

The height of buildings is expected to be a minimum of three stories for buildings within TOD Station Areas. The height of buildings is expected to be a minimum of two stories and a maximum of five stories in the TOD Corridor Area. The TOD ordinance should provide for use of a hearing process in order to allow for heights over six stories in the TOD Station Areas and five stories in the TOD Corridor Area. The actual design of buildings needs

to respect adjacent single-family uses and be designed to integrate with them.

Floor Area Ratio

Commercial developments should have a floor area ratio (FAR) of at least 0.60 in TOD Station Areas. For developments in the TOD Corridor Area, the FAR should not be less than 0.40.

Residential Density

For residential only projects, residential density should not be less than 30DU/Acre in the TOD Station Areas and 17DU/Acre in the TOD Corridor Area. There is no minimum limit on mixed-use projects.

Building Frontage

In order to support the pedestrian-friendly environment within the TOD Station Areas, building frontages onto streets and open spaces should be maximized. Building street frontage should be a minimum of 75% of the lot width at the street in TOD Station Areas, except when parks, plazas and essential driveways are provided.

Building street frontage should be a minimum of 65% of the lot width at the street in TOD Corridor Area, except when parks, plazas and essential driveways are provided.

Street Wall Features

The street wall is the vertical plane defined by buildings along the street. In order to encourage pedestrian activity, there needs to be a lot of visual interest along these street

In addition, blank walls should not be longer than 20' and should not be more than 30% of the building width adjacent to Main Street and TOD Stations for non-residential buildings. For residential buildings, blank walls should not be longer than 20' and should not be more than 50% of the building width adjacent to Main Street and TOD Station Areas.

When the buildings are adjacent to Main Street and TOD Station Areas, the orientation of the main entrance of the buildings should be towards Main Street and TOD Station Areas. Functional entrances can also be oriented towards public spaces such as a square, park or plaza. A pedestrian path should be provided from the building entry to the TOD Station or nearby major pedestrian access way.

Building and Shade

For development directly abutting Main Street, sidewalks should be shaded through awnings and projections. Additional natural shade through landscaping should also be provided. The design and location of such facilities should be in response to the climatic and development characteristics unique to Arizona as well as to the area.



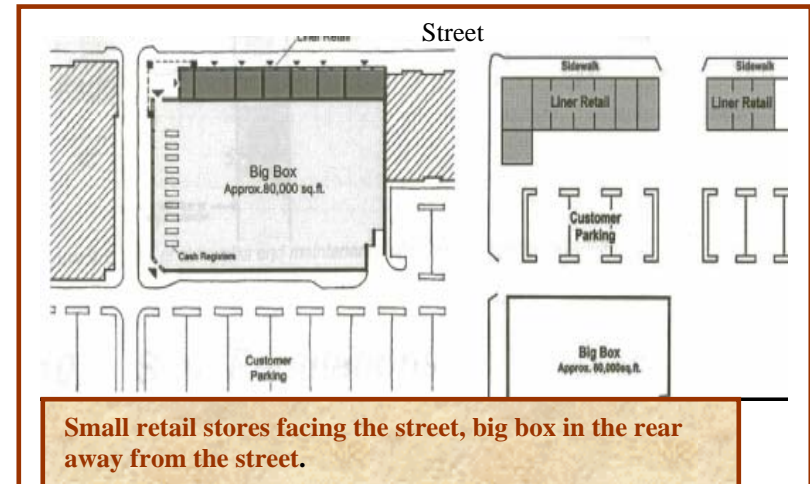
Graphical illustration of use of awnings as well as landscaping to provide ample shade for pedestrians

Large-Scale Development and Plazas

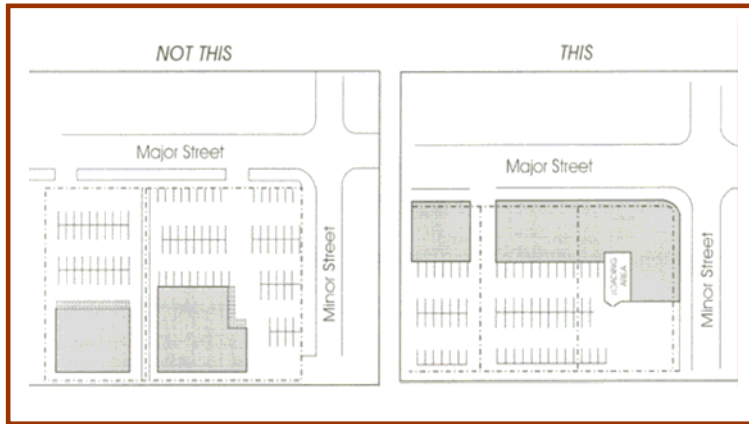
Large-scale developments such as retail plazas, business parks, office plazas and entertainment/cultural plazas can be designed to integrate well into the community's vision for "main street character" along major streets.

Large-scale retail commercial should not front the street with parking lots; instead, small retail buildings should front the street with parking camouflaged from the street.

Pedestrian connections along with pedestrian destinations such as a park/plaza should be an integral part of these developments. Graphics below show a pocket park and a plaza in the center of retail development, emulating the experience of a public square.



walls. Interest is provided by the frequency of entrances, frontage transparency, exterior wall finishes, the creation of interesting spaces and signage.



Maximize street frontage development with parking camouflaged from the major street

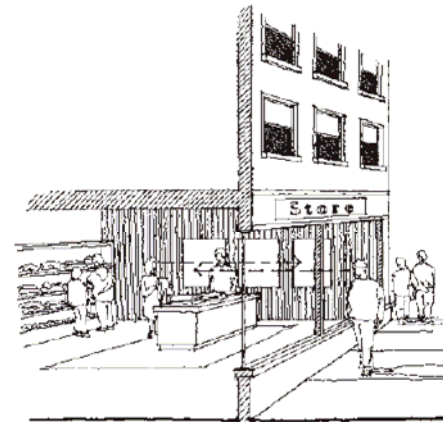
Uses such as parking garages can be anchored by retail stores and restaurants in a way that such uses would face Main Street. This would help maintain vibrancy along Main Street. The example on the right shows a restaurant in front of a parking garage at Alma School Road/Southern Avenue.



For non-residential uses, a minimum of 65% of the **lineal building width** should be ground floor windows on walls adjacent to TOD Station Areas and Main Street in both the TOD Station Areas as well as TOD Corridor Area.

Also, for non-residential uses, a minimum of 30% of the **ground floor façade area** should be used for windows on walls adjacent to TOD Station Areas and Main Street both in the TOD Station Areas as well as TOD Corridor Area.

The bottom of the windows should be a maximum 2 feet above the interior finished floor to ensure openness at a human scale. The top of the windows should be at least 8' above the interior finished floor. A minimum of 60% of the total window area should be maintained for transparency. A minimum of 15% of the area above the ground floor facing Main Street and TOD Stations should be used for windows in both in the TOD Station Areas and TOD Corridor Area.



Storefront transparency allows for a visual connection between interior activities and people on the sidewalk

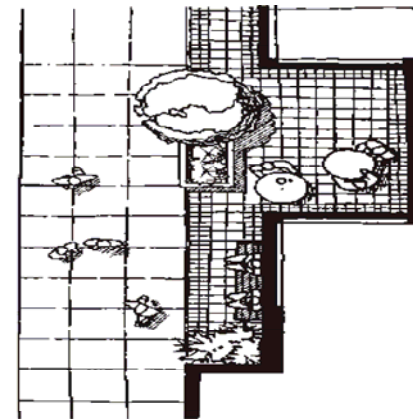
Streetscape

Streets, more than any single public element, define the character of our community. Design elements along the streets in the area, if carefully applied, help to provide a sense of place and add to identity of the area. A suitable streetscape would also help in fulfilling the objective of a pedestrian and transit-friendly environment.

Main Street east of Sycamore Station (end of light rail line) should be developed to provide a 28 foot raised landscaped median in the center, with two eleven-foot travel lanes in each direction, a minimum 5.5 foot bike lane in each direction, 8.5 foot wide on-street parallel parking on each side, landscaped bulb-outs to break up the on-street parking modules, and a ten-foot wide sidewalk on each side. The figure 12.1 shows the typical cross-section planned for Main Street. The figure also shows a building zone, a pedestrian zone and a curb zone along buildings to enhance the pedestrian-friendly environment.

Pedestrian amenities should be located strategically along transit stops, intersections, open spaces, and plazas. Landscaping and awnings should be provided continuously all along Main Street and on cross-streets to provide shade and make the environment pedestrian-friendly.

Drought-tolerant trees, shrubs, perennials, and groundcovers cited in the Arizona Department of Water Resources low-water using plant list should be used along West Main Street Area major roadways. The streetscape along Main Street should include date palm trees, planted in combination with shade trees.



Building setbacks/recessions in contiguity to the sidewalk can create active public spaces that can compliment surrounding uses; provide visual interest



Wider brick paved street walks create pedestrian-friendly environment

The building zone should have a sidewalk contiguous to the front façade of the mixed-use and non-residential buildings. Such sidewalks, if constructed during redevelopment of an individual project, should be developed with similar material and grade to the existing sidewalk to ensure contiguous pedestrian movement.



Figure 12.1: Main Street Typical Cross-section and Plan