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DEVELOPMENT ORIENTATION

Key Issues

Orientation refers to where buildings sit on a site as well as where their principal entrances or "storefronts" are located. Currently in Austin's code, regulations related to orientation, such as building setbacks, depend solely on the property's zoning. While this approach is common throughout the US, there are three key problems with it:

- The building setbacks and other site development regulations are the same for each property within the same zoning district regardless of where the property is located and what kind of roadway provides its principal access. For example, a property located on a two-lane neighborhood collector street with GR zoning has the same setback and height requirements as a property with GR zoning on a major highway. The desired orientation of a commercial development depends primarily on what roadway it is on and what area of town it is in, but the current code does not consider these differences.
- Linking site development regulations solely by base zoning district results in zoning for site regulations, instead of zoning for land uses. For instance, it is not uncommon for an applicant to request CS zoning for the site development regulations, but only wanting GR uses.
- Along a single stretch of roadway, there are often a variety of zoning districts, each with different site development regulations. Currently, there could be three adjacent parcels on the same roadway with the same land use but with three different setback, height, impervious cover and FAR requirements.

In addition, survey results showed that a strong majority (70.5%), including the majority of real estate professionals, want to see a change in development orientation along non-highway roadways (Urban Roadways) so that buildings are built close to the street. In addition, cities around the US, including San Antonio, TX, Dallas, TX, San Diego, CA, Milwaukee, WI, Sarasota, FL and Portland, OR are now requiring buildings close to the street along certain roadways or within non-downtown zoning districts.

Proposed Code Amendments

Some optional items contain ongoing obligations. To ensure ongoing compliance, all site plans shall list the obligations for the site, and notices of all site plans shall be filed with the county clerk.

DO-1: Definitions

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To improve the responsiveness of zoning to location, to remove the inconsistency of having different regulations for the same use on the same roadway, and to create a cohesive development pattern, development orientation will be dependent on the roadway type where the development occurs.

"Core Transit Corridors": are defined as the following roads and road sections:

- 1. Lamar between Airport (north) and Ben White (south)
- 2. Guadalupe
- 3. S. Congress to Stassney
- 4. Barton Springs to Robert E. Lee
- 5. W. Fifth
- 6. W. Sixth between Guadalupe and Pressler
- 7. Riverside to Pleasant Valley
- 8. Anderson between Burnet and Mopac
- 9. Burnet between 45th and Anderson
- 10. S. 1st to Ben White
- 11. E. 7th to Pleasant Valley
- 12. E. Cesar Chavez to Pleasant Valley
- 13. MLK, Lamar to Airport
- 14. 38th Mopac to Speedway

Criteria for adding Core transit corridors in the future:

- 1. Population density
- 2. Neighborhood plan

- Corridor plan
- 4. Transit facilities

In the neighborhood planning process, stakeholders should consider and make recommendations concerning roadways they wish to designate as core transit corridors within the neighborhood boundary.

The taskforce recommends that the following roadways be considered core transit roadways in the future:

- 1. S. Congress from Stassney to Slaughter
- 2. Slaughter from I35 to Mopac
- 3. 7th St. from Pleasant Valley to 183
- 4. Lamar from Anderson to Howard
- 5. Manor from Dean Keaton to 183
- 6. Airport from Manor to Lamar
- 7. Oltorf
- 8. 51ST from Manor to Airport

"Urban Roadways" are defined by the following boundaries:

- 1. (northern boundary) Mesa to Loop 360, Loop 360 to Great Hills, Great Hills to Braker, Braker to Burnet, Burnet to 183, 183 to Manor
- 2. (eastern boundary) Manor to Airport Blvd, Airport Blvd to 7th, 7th to Pleasant Valley to Ben White Blvd.;
- 3. (southern boundary) Ben White;
- 4. (western boundary) Mopac except for area bounded by Lake Austin Blvd., Exposition, Windsor, Pecos, 38th, Balcones, Mesa, Spicewood Springs.

The taskforce recommends that the urban core boundaries be extended in the future to the following boundaries:

- 1. Metric to Parmer and Parmer to Burnet on the North
- 2. 183 to 71 on the East
- 3. Slaughter to the South

"Local Roadways": all roadways that are not Transit, Hill Country or Highway Roadways.

"Hill Country Roadways": This roadway type applies on all properties within 1000 feet of FM 2222, FM 2244, FM 620, Loop 360 and Southwest Parkway.

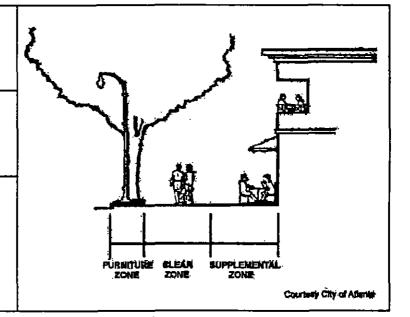
"Highways": all freeways, parkways, expressways, and frontage roads identified in the Austin Area Metropolitan Transportation Plan.

"Internal Circulation Route": either a public street or a private drive edged by a curb within a development. An Internal Circulation Route may be designed as a matter of right for speeds as low as 20 miles per hour.

"Clear Zone": the area dedicated for an unobstructed sidewalk.

"Furniture Zone": the area between the Clear Zone and the curb.

"Supplemental Zone": an area between the Clear Zone and the building edge for active public uses such as a plaza, outdoor café or patio.



DO-2	Development Orientation on Core Transit Corridors	Core Transit Corridors
Applies	All zoning districts except single family.	
_to:	All new buildings, except additions to existing buildings.	

Along Core Transit Corridors, all buildings must be built up to the Clear Zone or the Supplemental Zone along the Core Transit Corridor with the following exceptions:

- 1. If the lot is deep enough for at least two blocks, ¹ buildings may be built up to the Clear Zone on an internal block adjacent to an Internal Circulation Route subject to the requirements of C-2.
- 2. The following do not have to be built up to the Clear Zone along that roadway so long as parking is not located between the building frontage facing the street:
 - a. civic buildings
- 3. Within each zoning category along Core Transit Corridors, a VMU-option overlay is established subject to the following:
 - a. In areas subject to a Neighborhood Plan, VMU structures may not contain uses prohibited for that lot under the Neighborhood Plan
 - b. In areas that have not undergone the neighborhood planning process, the VMU overlay is limited to commercially zoned properties.
- 4. Any surface parking along a Core Transit Corridor must have a row of shade trees between the curb and the parking area.

A central land use goal that resulted from the Envision Central Texas process is to promote increased mixed use infill development. To achieve this goal, public infrastructure improvements are critical along Core Transit Corridors. Therefore, the City Council sets the following policy directives concerning infrastructure: (1) Core Transit Corridors shall receive top priority for sidewalk construction; (2) Austin Energy shall develop and implement a plan to bury utility lines in conjunction with sidewalk construction; (3) the Director of Public Works shall develop and implement a plan to plant street shade trees in conjunction with sidewalk construction; and (4) the City Manager shall develop a program for VMU buildings on Core Transit Corridors to rebate the cost of moving public infrastructure the impedes the developability of property along Core Transit Corridors.

¹ The minimum block length is 276 feet in any direction.

DO-3	Development Orientation on Urban Roadways	Urban Roadways
	All zoning districts except residential.	
to:	All new buildings, except additions to existing buildings.	·

- 1. On Urban Roadways, buildings must be built up to the Clear Zone or Furniture Zone along that roadway and parking is prohibited between the building(s) and the front property line unless the development meets the exceptions set forth below.
 - a. If the lot is deep enough for more than one block, buildings may be built up to the Clear Zone on an internal block along an Internal Circulation Route subject to the requirements of C-2.
- 2. On sites 400 feet deep or less, parking may be located in front of a building if
 - a. at least 40% of the street frontage consists of continuous building façade (divided into no more than two buildings) or 20% of continuous VMU building façade (divided into no more than two buildings) located within 30 feet of the property line; and
 - b. there is a row of shade trees between the curb and the parking area; and
 - c. A sidewalk at least 6 feet wide lined by shade trees leads to the main customer entrance from the property line. No more than one drive aisle can cross the sidewalk. For multi-tenant developments, there must be a path at least every 330 feet.
- 3. For sites located on a corner on Urban Roadways,
 - a. the building(s) within 100 feet of the corner may not have a parking area between the building and the property line from the corner.
 - b. the development may not contain an auto-oriented use with the following exceptions:
 - I. A drive-through aisle may be located behind the store (example: Walgreens on 45th and Guadalupe).

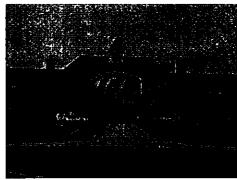
DO-4	Development Orientation on Local Roadways	Local Roadways
Applies	· · · · · · · · · · · · · · · · · · ·	
to:	All new buildings, except additions to existing buildings. (auto repair, screened parking, garage doors, loading areas):	

The preferred development model on Local Roadways is to refrain from placing parking between the building and the street. On Local Roadways, this is not required, but if the building is built up to the Clear Zone or Furniture Zone along a Local Roadway, the project is exempt from the connectivity requirements in C-2.

- 1. Parking along the street frontage must have
 - a. a row of shade trees between the curb and the parking area; and
 - b. a sidewalk at least 6 feet wide lined on both sides by shade trees leading to the main customer entrance from the property line. No more than two drive aisles can cross the sidewalk. For multi-tenant developments, there must be a path at least every 330 feet.

A shaded sidewalk at least 6 feet wide leading to the main customer entrance. No more than two drive aisles can cross the sidewalk.

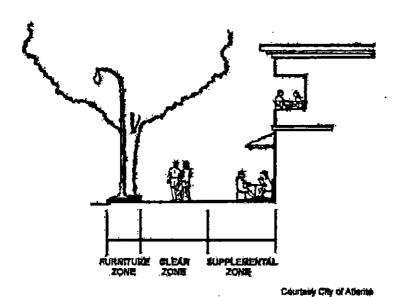
Example from Raleigh code.



- 2. For sites located on a corner on Local Roadways,
 - a. the building(s) within 100 feet of the corner may not have a parking area between the building and the property line unless—
 - I. a landscape barrier of shade trees is planted for the entire length of the parking area between the curb and the parking area; or
 - II. the building is brought up to the property line on one of the two corner street frontages.
 - b. the development may not contain an auto-oriented use unless
 - I. a landscape barrier of shade trees is planted for the entire length of the development between the curb and the parking area or
 - II. the building is brought up to the property line on one of the two corner street frontages.

DO-5	Development Orientation on Internal Circulation Routes
Applies to:	All non-residential zoning districts (exempt certain land uses, such as industrial). All new buildings, except additions to existing buildings. (auto repair, screened parking, garage doors, loading areas):

- 1. Along Internal Circulation Routes (whether built as public streets or as private drives), all buildings must have an adjacent sidewalk to the entrance, followed by an Internal Circulation Route.
- 2. Parking is prohibited between the building entrance and the curb edge of the Internal Circulation Route. (See Atlanta example below and diagrams in C-1.)
- 3. Parallel parking and head-in parking are allowed on an Internal Circulation Route.
- 4. Internal Circulation Routes (whether public roads or private drives) may be designed as a matter of right for speeds as low as 20 miles per hour
 - a. Policy: to promote pedestrian safety and pedestrian-oriented development



Atlanta's Design Standards set out the relationship of buildings to sidewalks and private drives or streets.

Development orientation for buildings along public streets or within a development containing a street-like internal circulation system.

DO-6	Orient building(s) according to roadway type hierarchy.	ALL Roadways
Applies	For Transit Roadways, all zoning districts.	
to:	For Neighborhood, Highway and Hill Country Roadways, all non-residential zoning district	
	(exempt certain land uses, such as industrial).	
	All new buildings, except additions to existing buildings. In no case would t	his require
	orienting development toward a street with zoning of SF6 or below.	

- 1. At least one customer entrance must either:
 - face the principle street and connect directly to principal street sidewalk as
 established through the roadway type hierarchy indicated in the table above
 (Transit Roadway first, etc. if building is located at intersection of two Transit and
 Urban Roadways, the priority street is that which offers the highest level of transit
 service.); or
 - b. if the principle entrance does not face the street—
 - I. the building must be built up to the property line,
 - II. the building edge on-street must provide
 - A. continuous shade/shelter to the front entrance and
 - B. glazing over 50% of the façade along the street.
 - III. the entrance must be less than 100 feet from the street face of the building; and
 - IV. there must be a buffer strip of shade trees between the building and the parking area.
- 2. In determining orientation, the following priorities shall govern:
 - a. Internal Circulation Route
 - b. Core Transit Corridor
 - c. Urban Roadway
 - d. Local Roadway
 - e. Highway or Hill Country Roadway
 - Unless the higher road runs parallel to the highway and is within 660 feet
 of the Highway or within 1,000 feet of Hill Country Roadway (i.e., a
 highway development would not have to orient to the urban/local roadway
 next to a highway)

Taskforce Draft Proposal-WORKING DRAFT May 10, 2005

DO-7	Allow exceptions to maximum front setback to protect natural features and historically-significant resources.	Urban and Neighborhood Roadways
Applies to:	All non-residential zoning districts (exempt certain land uses, such as industr All new buildings, except additions to existing buildings.	ial).

To protect natural or historic features

If any of the following are within the development orientation area, the setback area shall be increased administratively only to the extent needed to preserve or accommodate the feature.

- 1. Protected tree,
- 2. Significant stand of trees (to be defined in landscaping code)
- 3. Critical environmental feature
- 4. Natural drainage feature
- 5. Storm water detention facility placed in the setback due to topography and impractical to build underground
- 6. Historically-significant resource (determination made by Historic Preservation Officer)
- 7. Significant scenic amenities not located at the street front shall be granted an administrative waiver

DO-8	Allow Alternative Compliance	ALL
	·	Roadways
Applies	All sections of DO.	
to:		

To encourage creative and original design, any applicant not wishing to comply with one or more of the Development Orientation provisions may apply to the Director of the department reviewing the application, or its designee, for the applicable permit under this Alternative Compliance provision. Projects seeking an alternate means of compliance under this section may present their proposal to the Design Commission for a letter of support, which may help city staff in evaluating the merits of the proposal.

The Alternative Compliance request shall be granted if the Director makes one of the following findings:

- 1. The alternative presented in the request is reasonable given the site characteristics of the particular site in questions; or
- 2. The alternative presented in the request is consistent with good design and the spirit and intentions of the applicable provision, taking into consideration the type of Roadway on which the site is located; or
- 3. The alternative presented in the request is reasonably necessary to prevent a material change in how one or more of the users of the building in question would function if the request were not granted from their normal way of functioning.



BUILDING DESIGN

Key Issues

Building design is regulated in many communities throughout the US (an estimated 3,000 cities²) to improve the look of the community, and in some communities, to enforce a certain character or style. For instance, in Sante Fe, NM adobe-style buildings are required. In Austin, as heard from stakeholders and as seen in some survey comments, diversity in building design is important, so the proposal is not prescriptive about requiring buildings to be of a certain style. The proposal instead provides options that help insure buildings have visual appeal and contain functional design elements, including shade and weather protection, that make the pedestrian experience at all sites pleasant.

These Building Design standards aim to strengthen Austin's unique character and help buildings to better function in Austin's environment. Creating buildings with appropriate human scale, lessening the impact of branded architecture that does not speak to our unique character and conditions, and increasing quality, adaptability, and sustainability in Austin's building stock are additional goals that these building standards address.

Alternate Means of Compliance- in an effort to insure that these standards do not restrict creativity or stifle innovation, the building design standards may be satisfied if the applicant can demonstrate to staff that a non-compliant proposed design meets the spirit and intentions of the design standards. Projects seeking an alternate means of compliance may present their proposed design to Austin's Design Commission for a letter of support, which may help city staff in evaluating the merits of the alternate design. The extent to which buildings containing national retailer branding on their façade (other than attached signs) may submit a request for an alternative compliance waiver shall be addressed in the code drafting of criteria.

² American Planning Association

BD-1	Pedestrian frontages.	ALL Roadways
Applies to:	All non-residential land uses (except office and non-transit roadway industrial). Land use exemption list applies (tbd). Projects that require building permits, except additions and interior and exterior remodels.	

This section refers to any building frontage visible and accessible to the public (i.e. oriented to the street, open space, parking, etc.). These areas shall be designed with pedestrian functionality and activity in mind, including opportunities for windows, shade/shelter, building entrances, and pedestrian amenities. Building facades facing loading areas, rear service areas, or facades adjoining other buildings (attached to more than 50% of the sidewall) are not required to comply with BD-1 standards.

A. Glazing on building facades

Glazing provides interest for the pedestrian, connects the building exterior and interior, puts eyes on the street, promotes reusability, and provides a human scale element on building facades.

- 1. At least 40% of the front wall area that is between 2 and 10' above grade shall consist of glazing, at least half of which is clear glazing.
- 2. At least 25% of the wall area between 2 and 10 feet on all other publicly visible facades must consist of glazing.
- 3. Second-floor front facades must provide a minimum of 25% glazing between 3' and 8', as measured from that story's finished floor level.
- 4. If a single story building has a façade higher than 20 feet, the façade area above 15 feet is subject to the same window requirement as the second floor requirement.
- 5. To facilitate the development of a street wall, any façade that is built up to an interior mid-block property line is not required to have glazing on that façade if no prohibitions and no contractual or legal impediments exist that would prevent a building being constructed on the adjacent property up to the wall of the façade.
- 6. An administrative waiver may be granted for buildings that cannot comply with this regulation because of the function of the building, as long as the building (a) is designed to allow for the future addition of glazing (i.e. concrete tilt wall panels would be required to have knock out panels at least 12' wide x 12'tall over 25% over the waived façade, (b) the façade facing the street meets the glazing requirement and (c) the building no national retailer branding on its façade. In addition, the façade receiving the waiver must achieve a level of façade articulation as specified in BD-4)

B. Building entrances

Like windows, multiple building entrances help prevent long continuous wall planes and promote pedestrian activity along building frontages.

- 1. Building entrances shall be located at intervals of no more than 75' along the primary public façade. If the primary public façade is not the street facing façade, there must be a shaded pedestrian pathway (as described in the connectivity section) linking the street and the building entrance.
- 2. If building entrances are located greater than 75' apart (or there is a single entrance point on a façade greater than 150'), the areas between the entrances (or from building edge to the entrance) shall incorporate landscape areas, raised planters, at least 25 linear feet of see-through glazing for each 100 feet of frontage, and shaded pedestrian amenities that connect the entrances.

C. Shade and Shelter

Austin's climate requires shade and shelter amenities in order to accommodate pedestrian activity. Shaded pathways will provide greater connectivity between sites and allow for a more continuous and walkable network of buildings. Shading/ shelter along building facades will help connect the building to the site and better respond to Austin's conditions. Shade and shelter devices include covered walkways, awnings, canopies, balconies, etc.

- 1. Building facades along the street shall have a shaded pathway or shade device along 50% of the facade.
- 2. Building entrances shall be located under a shade device.
- 3. Buildings within the site shall be shaded along all public areas and pedestrian pathways to the building entrances (at least 50% of all frontages facing parking shall be shaded or have a shelter device).

A building may receive an administrative waiver of the shade device requirement by demonstrating how the proposed landscape design satisfies the shade requirement along building frontages through landscaping.

BD-2	Waive annual license fee for pedestrian cover and trees in ROW.	Urban and Local
1	All land uses on Urban and Neighborhood Roadways.	
_ to:	<u> </u>	

Currently in the CBD and DMU zoning districts, owners of buildings with pedestrian cover, such as awnings or balconies over the public sidewalk, do not pay an annual license fee, which is typically charged by the City for all private structures in the ROW. This amendment would extend that to all zoning districts to encourage the construction of buildings with pedestrian cover over the public sidewalk.

In addition, trees planted in the ROW will be considered pedestrian cover, and the annual license fee for those will be waived too. It is the policy of the City Council that shade trees are an important component of the public right-of-way just as utility lines are an important component. Therefore, by October 1, 2005, the Director of Public Works shall complete a plan for all Transit Roadways specifying how and where shade trees may be planted in the ROW at intervals not less than every 30 feet. As of October 1, 2005, approval of an application to plant shade trees in the ROW along Transit Roadways in the locations and manner specified in the Director's plan shall be granted administratively immediately upon submission of the application.

BD-3	Options to improve building design	ALL
		Roadways
Applies to:	All commercial zoning (except office). Applies to any buildings zoned for inc warehouse use at the point their use is converted to commercial Land use a applies.	
	Projects greater than 10,000 s.f. (and projects < 10,000 s.f. that contain any prototype design features of a chain store) that require building plans, except interior and exterior remodels.	
	Projects less than 10,000 sq ft. that do not contain any exterior prototype de chain store are exempted from this section.	sign features of a

The purpose of these Building Design standards is to increase the quality of the building stock in Austin and encourage buildings that function, both aesthetically and contextually, within the fabric of Austin, while discouraging prototype or standardized formula buildings that do not speak to our unique character and conditions.

This section is intended to mitigate some of the design features that do not speak to the unique character of Austin, and help improve the character and massing of Austin's building stock.

Each building plan must earn 1 point from the matrix below except as follows:

- 1. A building that has any portion of the exterior consisting of prototype design features by a national chain must earn at least 5 points, two of which must come from Group B.
- A building must earn 3 points if it has prototype design features by a national chain BUT
 has no prototypical designs above 12 feet and has no prototypical roof or parapet
 design.
- 3. If the building plan shows any of the design features listed below, one additional point must be earned for each design feature (except as noted).
 - a. Building is one story and greater than 20 feet tall, floor to bottom of roof structure.
 - Building façade exceeds 200 feet without entrances every 75 feet.
 - c. Individual use is greater than 100,000 s.f.
 - d. Building is a pad building located in the CBD with any of the following features (2 negative points):
 - drive-through;
 - II. building is separated from other buildings by surface parking on at least two sides;
 - e. False fronts or shaped parapets are created to increase apparent size of building or house signage/corporate identity logos, etc.

- I. If used, building parapets must not be greater than 50% higher than the distance of the building from grade to roof.
- II. For example, a building that is 20 feet tall from the grade to the roof cannot have a parapet greater than 10 feet tall from roof to top of parapet.
- f. Concrete block is used on more than 25% of a façade visible to the public (2 points if concrete block is used on more than 75%)
- g. EIFS is used as a material on the ground floor (below 10')
- h. Pad building with drive-in (Core Transit Corridor only).

VMU buildings are exempted from BD-3. Points are listed for VMU buildings for the sole purpose of providing aggregation values for LU-5.

Group A 3 points	Group B 2 points	Group C 1 point
VMU structure (1 extra point if VMU structure contains at least 25% residential and 25% of either office or retail) 3	Provide "liner" stores (at least 75% of building façade must be storefronts for at least two other uses).	Green Building rating: 1 point for each star above code required minimum (if applicable). No double credit for Green Building points from Group B
	"Sustainable roof"	Building contains liner stores inlaid into façade of user.
		(1 point for each liner store)
	Building integrates solar power generation into building design (e.g., rooftop solar panels or Building Integrated Photovoltaics)	Façade articulation
	Green building rating of 2 stars.	Primary entrance design
·		Roof design
		Building materials
		Glazing on ground-floor facades that face the street or parking lot have a Visible Transmittance (VT) of 0.6 or higher.
		Improves storefronts to new regulatory standard for glazing type/size & shading.
		Complies with neighborhood design guidelines, as prescribed in the Urban Design Criteria Manual.
		90% of all frontages facing parking shall be shaded or have a shelter device

³ VMU structures are exempted from BD3. Points are assigned purely for aggregating point values for LU-5.

Definition of Options

- 1. **Façade Articulation** is one of the following design features, none of which can be national chain prototype features:
 - a. Changes in plane with a depth of at least 24 inches, either diagonally, horizontally, or vertically, at intervals of not less than 20 feet and not more than 100 feet; or
 - b. Changes of color, texture, or material, either diagonally, horizontally or vertically, at intervals of not less than 20 feet and not more than 100 feet; or
 - c. A repeating pattern of wall recesses and projections, such as bays, offsets, reveals or projecting ribs, that has a relief of at least eight inches.
- 2. **Primary Entrance Design** consists of at least three of the following design elements at the primary entrance (none of which can be national chain prototype features), so that the primary entrance is architecturally prominent and clearly visible from the abutting street:
 - a. Architectural details such as arches, friezes, tile work, murals, or moldings.
 - b. Integral planters or wing walls that incorporate landscaping or seating.
 - c. Enhanced exterior light fixtures such as wall sconces, light coves with concealed light sources, ground-mounted accent lights, or decorative pedestal lights.
 - d. Prominent three-dimensional features, such as belfries, chimneys, clock towers, domes, spires, steeples, towers, or turrets.
 - e. A repeating patters of pilasters projecting from the façade wall by a minimum of eight inches or architectural or decorative columns.
- 3. Roof Design must have at least one of the following design elements, none of which can be national chain prototype features:
 - a. Parapets with horizontal tops having height changes of at least one foot occurring horizontally no less than every 100 feet.
 - Parapets that do not have horizontal tops must have pitched or rounded tops with a pattern that repeats or varies no less than every 100 feet.
 - All parapets must have detailing such as cornices, moldings, trim, or variations in brick coursing.

- b. Sloping roofs with at least two of the following design elements:
 - I. Slope of at least 5:12.
 - II. Two or more slope planes.
 - III. Overhanging eaves extending at least three feet beyond the supporting wall.
- 4. A sustainable roof is roofing that has either.
 - a. a Solar Reflectance Index (SRI)⁴ as required in the table below for a minimum of 75% of roof surface; OR
 - b. a vegetated roof for at least 50% of the total roof area with a rainwater collection system; OR
 - c. a combination of a vegetated roof with rainwater collection system and SRI-compliant roof for at least 75% of roof area.

Low-slope roof: less than or equal to 2:12 SRI = 78 Steep slope roof: > 2:12 SRI = 29

- 5. Building materials are defined as
 - a. limestone or
 - b. brick
 - I. if the building user will be a chain store, the brick color shall not be the same as or substantially similar to any of the prototypical brick colors used by the chain store.

⁴ Solar Reflectance Index (SRI) combines reflectivity and emittance to measure a roof's overall ability to reject solar heat. The Environmental Energy Technologies Division at Lawrence Berkeley National Laboratory (http://eande.ibl.gov/CoolRoof/membrane.htm) lists SRI values associated with several different brands and types of low-slope membranes. Steep slope roofing applications can be found with a SRI up to 62.]

BD-4	Alternative to BD-3 for single story buildings larger than 100,000 square feet.	ALL Roadways
Applies to:	All non-residential land uses (except office). Land use exemption list applies. Projects that require building plans, except additions less than 30% of total square footage or less than 5,000 square feet and interior and exterior remodels.	

Large buildings such as big box stores play a significant affect on the built environment due to their size and the amount of land they use. They can be difficult to adapt to different uses.

Instead of complying with BD-3, a single story commercial building larger than 100,000 square feet may elect as a matter of right to comply with the following standards:

- 1. Building façade consists of 75% masonry or limestone excluding the window area and rear service area on sides visible to the public.
- 2. Use of prototypical franchise designs above 12 feet and use of prototype roof and prototype parapet design features is prohibited.
- 3. Façade articulation (as defined in BD-3).
- 4. Building has 40% glazing on the front façade (at least half of which is clear and see-through into the store) and 25% glazing and cutouts for an additional 25% glazing on sides visible to the public.
- 5. Building has a Green building rating of at least 2 stars.

BD-5	Alternative to BD-3 for Drive in Services and Pad Buildings on larger sites	ALL Roadways
Applies to:	Pad buildings and single use Drive in Services.	

Pad sites are generally set to the front of large lots and are the most visible buildings from the street frontage.

Instead of complying with BD-3, a pad building may comply with the following standards:

- 1. Use of prototypical franchise designs above seven feet is prohibited (i.e., no prototype roof designs).
- 2. The portion of the building below seven feet consists of either
 - a. Limestone: or
 - b. brick that has a different color than the prototype brick color; or
 - c. for a building that occupies a pad or portion of a building within a planned project or shopping center, the building has similar design characteristics and shares vocabulary with the rest of the shopping center. This includes use of similar materials, patterns, rhythms, and proportions to the rest of the center.
- 3. Pad sites shall not have any parking located between the building and the street on Core Transit Corridors, Urban Roadways and Local Roadways.