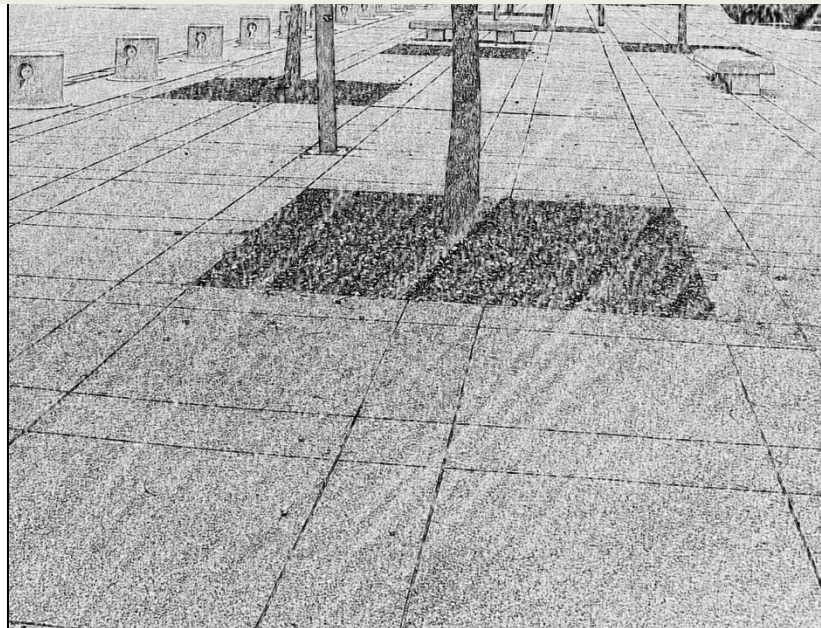




# Article X Landscape Regulations



## Landscaping - Trees



# LANDSCAPING

Division 51A-10.120

## Current Code

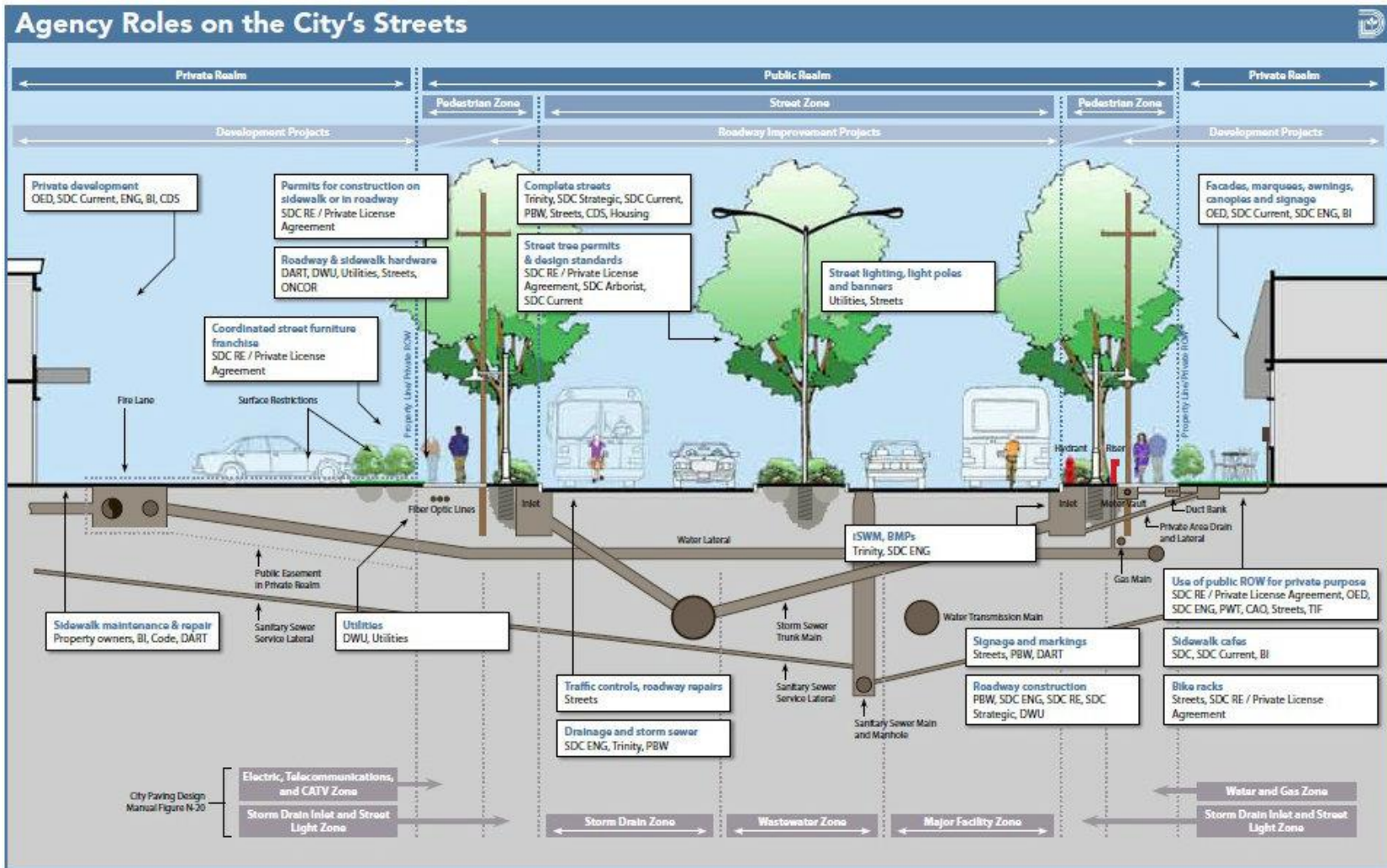
### **MANDATORY:**

- Single family and Duplex use
- **Uses other than single family and duplex:**
  - Perimeter Landscape Buffer Strip
  - Screening of off street loading spaces
  - Site trees
  - Street trees
  - Parking lot trees
  - Minimum sizes
  - Buffer Plant material

**DESIGN STANDARDS:** 9 options, must comply with at least 2

# LANDSCAPING - TREES

## Public/Private Relationship





# LANDSCAPING – TREES

## Local Utility/Easement Avoidance

- Establish a minimum distance from utilities (poles, lines, easements).
- Set planting distances from signs and structures.
- Set planting distances for tree species.
- Select the right tree for the location.
- Establish best soil conditions for the species.

### How Far You Should Plant from Utility Lines\*

- Plant large canopy trees (40 feet and taller) at least 50 feet from power lines.
- Plant medium size trees (less than 40 feet tall) at least 20 feet from power lines.
- Plant only small trees (20 feet and smaller) near power lines, and within 8 feet of power poles.

\* These are general guidelines. Check with your local utility for specific planting distances for your area.

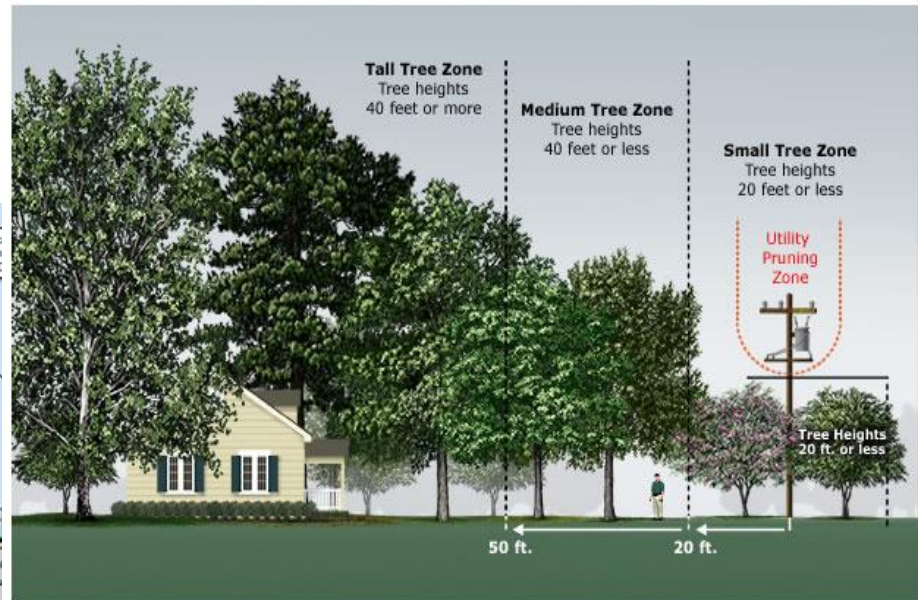


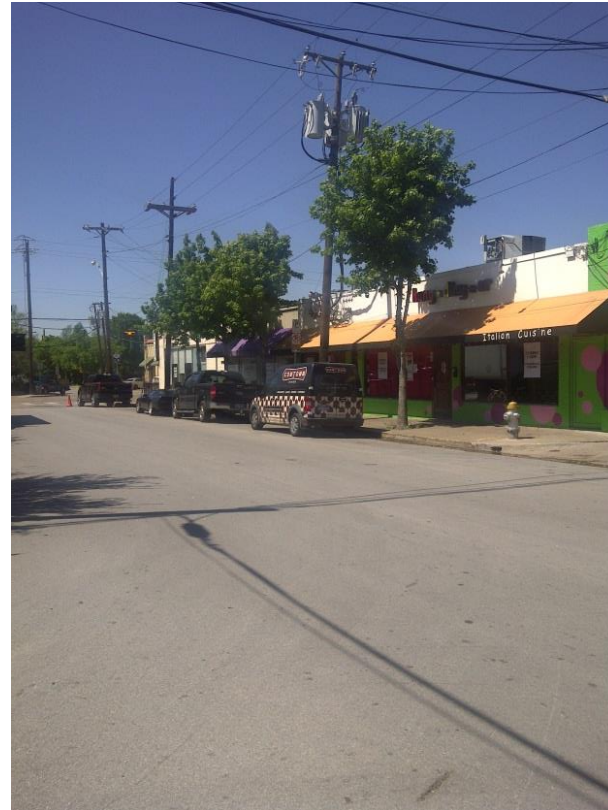
Illustration Copyright © Robert O'Brien

# LANDSCAPING – TREES

## Location concerns



- Tall tree near utility
- Small front yard



- Small tree well (no surface area, no soil volume)
- Directly under utility
- Significant pruning

# LANDSCAPING – TREES

## Location Concerns



- Live Oaks planted to utility in front yard.
- Utility pruning.
- Large front yard provides more options for landscaping and tree sustainability.



# LANDSCAPING – TREES

## Location Concerns



- Street trees planted along accessible interstate frontage road and adjacent to a shared access drive.
- Large trees under utilities and in decline and will require replacement.
- Would it have been better for the street trees to be on the other side of the driveway?

# LANDSCAPING – TREES

## Location Concerns



- Large canopy street trees under utility
- State jurisdiction highway



# LANDSCAPING – TREES

## Location Concerns



- Large canopy trees under utility
- Trees in parkway (with license)
- Trees required to be within 30 feet of curb.

# LOCATION - TREES

## Property Owner Considerations

- Other zoning regulations – building setbacks, parking requirements, vehicle maneuvering
- Lot sizes – urban/suburban density
- Code standards for public safety on the property (sidewalks, access onto property)
- Other utility or drainage constraints, lighting
- Visibility to signage or store fronts
- Property and Parkway maintenance
- Longevity and vitality of trees

# LANDSCAPING - TREES

## Proposed

### MANDATORY

Zone Landscaping:

- **Street Buffer Zone**
- Parking Lot Zone
- Interior Zone
- **Residential Buffer Zone** (when applicable)

Misc.

- Site trees
- Screening of off street loading spaces



# LANDSCAPING - TREES

## Proposed

### Street Buffer Zone:

The area along the entire adjacent public street frontage having an average width measured from the property line into the property.

<u>Average Width</u>		<u>Min/Max</u>
20'	*Highway/Freeways	5' / 50'
15'	*Major streets	5' / 40'
10'	*Local streets	5' / 30'

\* Street designations to be determined in coordination with other city codes

# LANDSCAPING - TREES

## Proposed

### Street Buffer Zone:

Minimum Planting requirements:

- 1 Large Canopy Tree for each 50' of street frontage

# LANDSCAPING - TREES

## Proposed

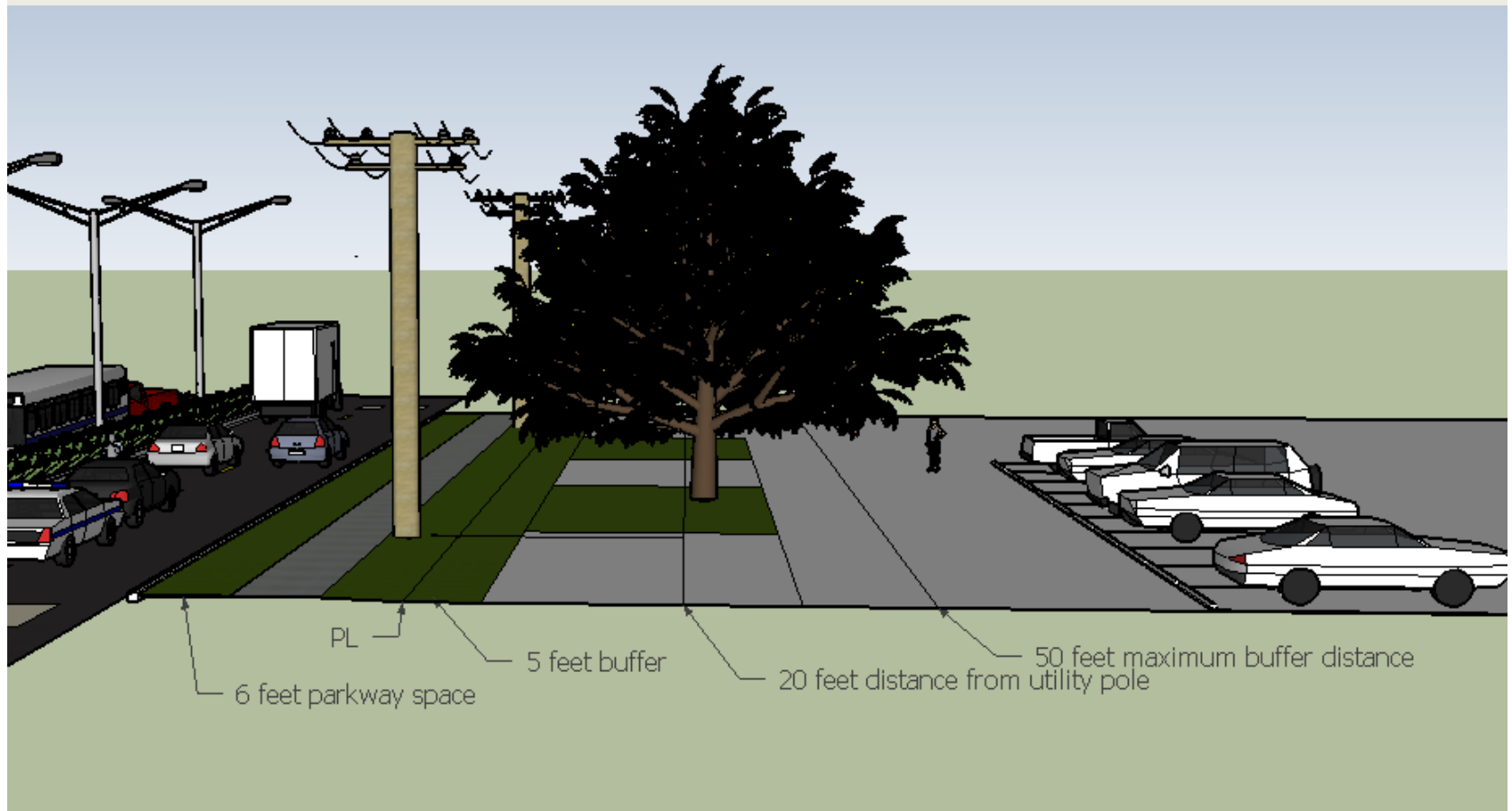
### Benefits of Proposal:

- Establishes mandatory provisions to address the many variables for the sustainable, multi-generational growing conditions for trees, and allows for the adaptable re-use by the property:
  - greater soil availability (volume and surface area)
  - minimize conflicts between site conditions and planting requirements
  - minimizes conflicts between tree planting and utilities
- Addressing Landscape regulations in this fashion, places the Tree and Landscape environment on equal footing with the zoning regulations during the planning phase.



# LANDSCAPING – TREES

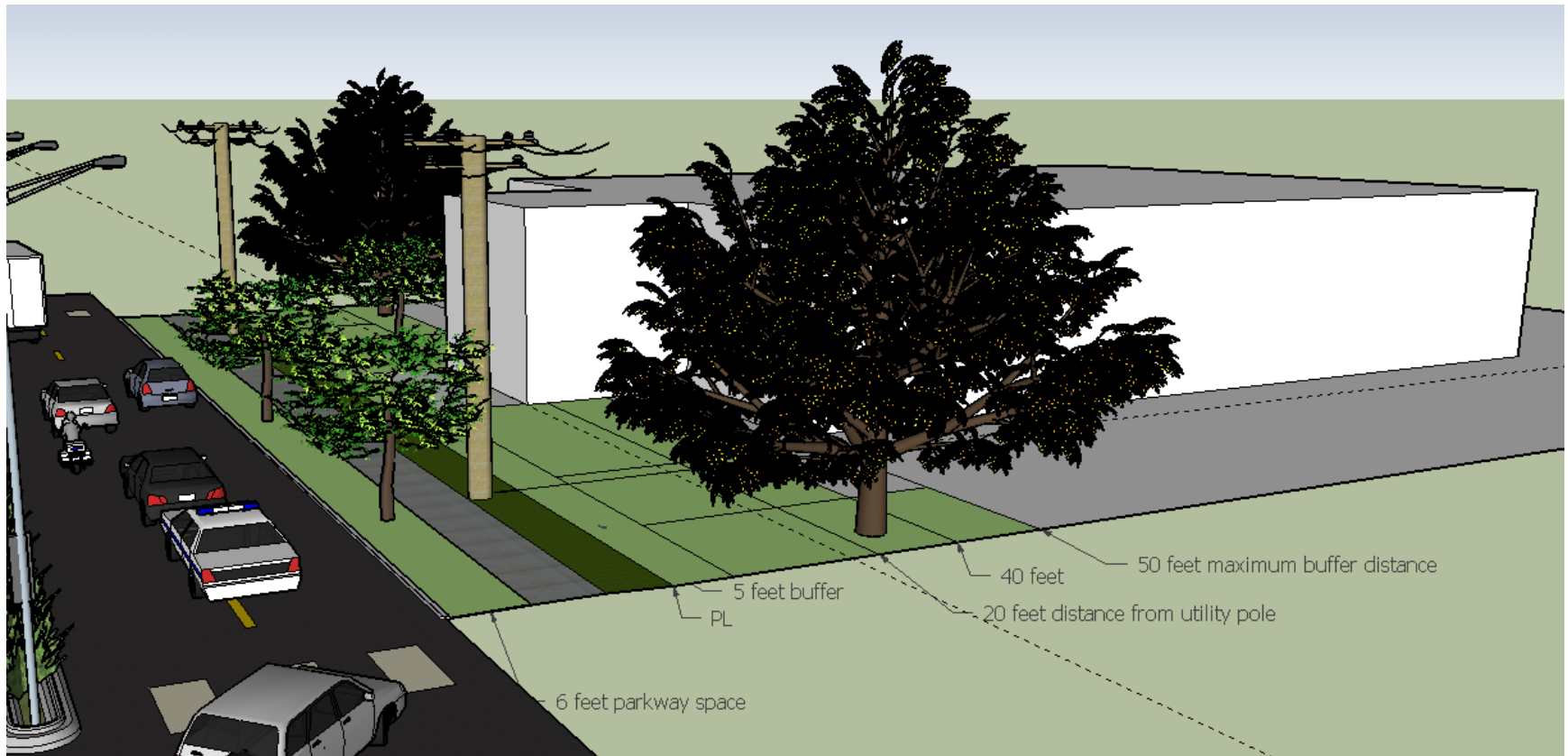
## Street Buffer Zone



- Large trees set back at least 20' from utility pole in open landscape area.
- By **averaging** the Street Buffer Zone width allows ability to accommodate paved area between trees.

# LANDSCAPING - TREES

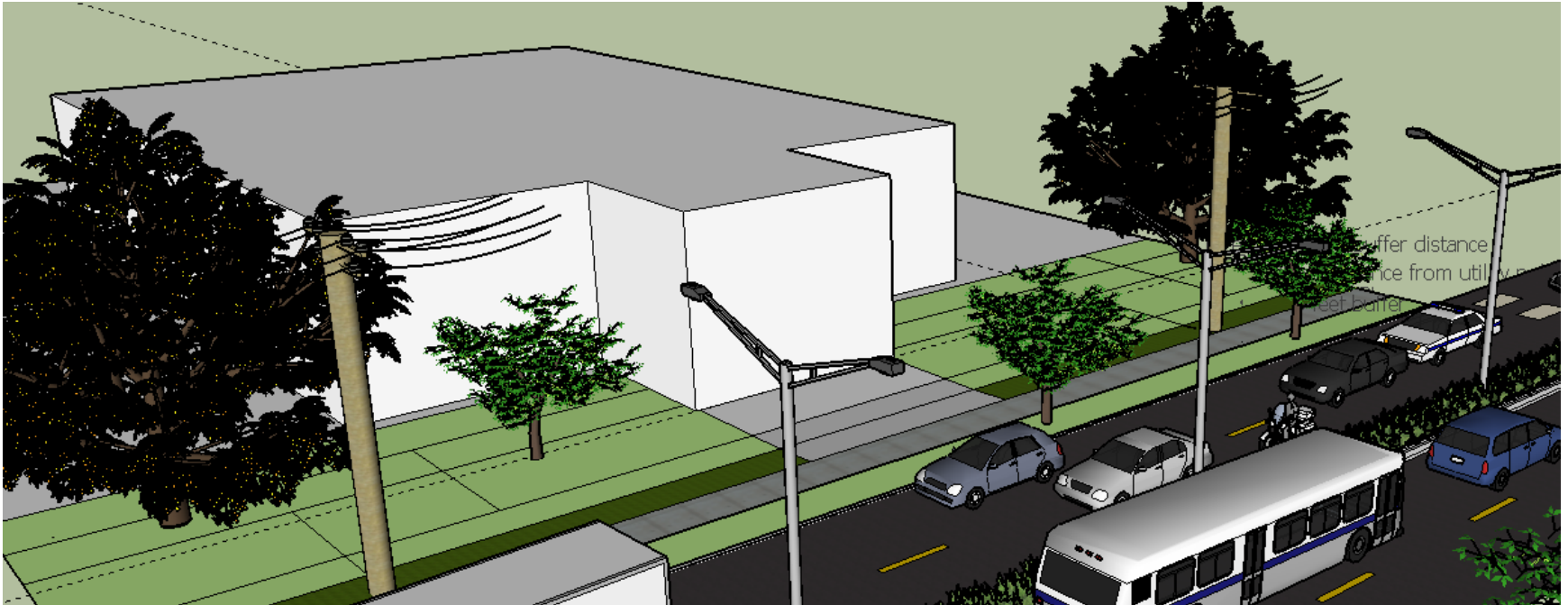
## Street Buffer Zone



Parkway trees added with no underground utility restrictions.  
Large trees set back *at least* 20 feet from overhead utility pole.

# LANDSCAPING - TREES

## Street Buffer Zone



- Maintains 5' minimum buffer + additional up to 50' or 40'.
- 6' wide parkway planting area allows parkway trees with no underground restrictions.
- Encourage tree trenches to extend rooting paths to yard area in the property.

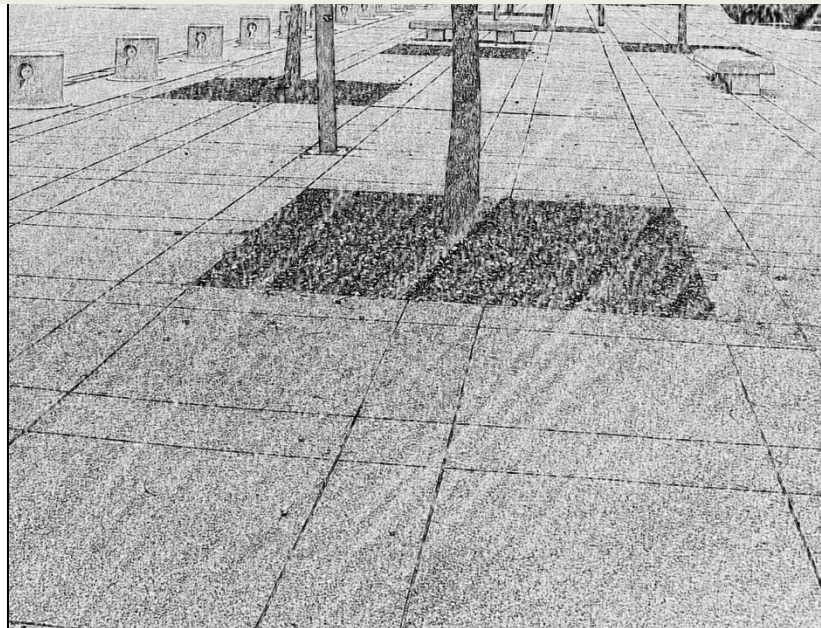




# Article X Landscape Regulations



## Residential Buffer Zone



# LANDSCAPING - TREES

## Proposed

### Residential Buffer Zone:

- Runs the entire portion of the perimeter of the lot where residential adjacency exists
- Minimum 10' wide or 10% of the lot depth, whichever is less



# LANDSCAPING - TREES

## Proposed

### Residential Buffer Zone:

Grouping at a minimum average density of one group /50 linear feet of frontage with a minimum of one group provided.

Minimum planting requirement when fence is not required:

- One large canopy tree and three small trees.
- One large canopy tree and three large evergreen shrubs.
- One large canopy tree, two small trees, and one large evergreen shrub.
- One large canopy tree, one small tree, and two large evergreen shrubs.
- When local utility conflict: 3 small trees in lieu of 1 large canopy tree.

Minimum planting requirement when fence required:

- One large canopy tree
- When local utility conflict: 3 small trees in lieu of 1 large canopy tree.

# LANDSCAPING - TREES

## Additional Considerations

- Establish mandatory minimum distances for trees from ROW structures and elements (signs, hydrants, etc.) for public safety and protection of grey infrastructure
- Establish mandatory minimum distances for trees to be planted from overhead local utilities and from underground local utilities.
- Establish soil volume, soil surface area, and soil quality for tree planting.



# LANDSCAPING - TREES

## Additional Considerations

- Establish a comprehensive list of appropriate trees from large to small size classes for planting in different site condition
- Existing trees may be used to satisfy tree requirements (when meeting specific criteria and tree protection requirements)
- Landscape requirements for additions on non-residential construction, on lots of 1 acre or less.
- A Street Buffer Zone may incorporate engineered solutions to attain minimum soil volumes, including suspended pavements, structural soils, bioswales, and tree trenches.

# LANDSCAPING - GENERAL

## Additional Considerations

- Landscape requirements for new construction or additions on non-residential building sites on lots of a certain size or less.  
What is the correct size....1/4 acre, 1/2 acre, acre?
- A Street Buffer Zone may incorporate engineered solutions to attain minimum soil volumes, including suspended pavements, structural soils, tree trenches and bioswales.
- Additional list of Design Standards/Options to enhance overall landscape and site environment.

# LANDSCAPING - GENERAL

## Additional Considerations

- Require a base number of Design Standards/Options to be met in addition to the mandatory provisions required (current) **OR** use a point system with points assigned to each Design Standard/Option with a base number to be acquired.
  - Existing 9 design standards
  - Trees in parkway when no utilities
  - ???

# LANDSCAPING

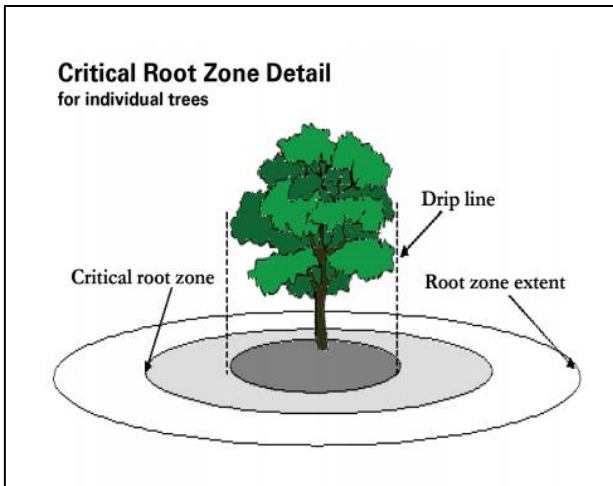


Concept street – Phoenix, AZ

‘Trees In Urban Design’,  
Crabtree & Hall



# DISCUSSION



# APPENDIX

## REFERENCES:

- Trees In Urban Design
- The Road to a Thoughtful Street Tree Master Plan
- Complete Streets Design Manual – Dallas
- Designing Alternatives to Avoid Street Tree Conflicts, Bioniarz and Ryan, 1993

All reference material can be found on the website below

<https://sites.google.com/site/dallastrees/>

# APPENDIX

- Frontage – length of property along one side of a street between property or lease lines.
- Street – a right-of-way which provides primary access to adjacent property.
- Alley – a right-of-way which provides secondary access to adjacent property.
- Parkway – portion of ROW between the street curb and the property line.

# APPENDIX

- Street type – arterials, collectors, local, highway
- Grey infrastructure – overhead utilities, underground utilities, franchise easements, public signals and signs
- Pedestrian accessibility, sidewalks
- Government jurisdiction
- Restrictions for area drainage, access