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INCORPORATED



LANDSCAPE
ARCHITECTURE
PLANNING

GARLAND

Downtown Urban Design Standards

MAY 2010

GARLAND DOWNTOWN URBAN DESIGN GUIDELINES

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INTRODUCTION

The City of Garland possesses a small-town feel even though it has a population of well over 200,000 residents. The downtown area retains a tradition of maintaining a distinctive atmosphere and charm. This set of guidelines reinforces the unique character of the community and allows it to grow while maintaining the character that draws visitors to the downtown district. By implementing the following guidelines, the downtown district will capitalize on the injection of residential, commercial and city development, as well as having the convenience of a prominent DART station.

The purpose of this effort has been to examine all of the development occurring within the public right-of-way and in adjacent public outdoor spaces to ensure that elements of the past, present and future convey a sense of place unique to Garland. In response to the ever-evolving environment, options have been created for incorporating a new set of design guidelines for both public and private improvements related to the streetscape, intersections, and other areas of opportunity. The design guidelines that are presented have been analyzed for longevity, functionality, and practicality.

This document is presented as a minimum set of design guidelines for the downtown district. The intended use of this document is to provide a framework to illustrate and define common design objectives for a unified, harmonious setting between various developments. Design diversity is encouraged in order to create a specific identity for each project. However, certain standards have been defined for key design factors to provide continuity and to ensure that all of the downtown district's projects complement each other.

GOALS

Quality site design and compatibility with the overall environment are primary goals of the standards. Location, size, style, color, and types of walls, sidewalks, planting, landscape areas and other design elements are described in the following text. Descriptions and illustrative

examples are utilized to further explain or clarify a guideline requirement or intent.

Another goal of the guidelines is for them to be utilized to create a human-scale environment to enhance the pedestrian experience. The design of landscape architecture should further enhance the pedestrian environment. Adequate and strategic placement of walkways should also achieve this goal. Planting features, shade trees, paving materials, benches and lighting fixtures all contribute to the pedestrian experience of the site.

The final goal is providing a safe environment for both pedestrian and vehicular traffic by minimizing conflicts and simplifying wayfinding.

IMPLEMENTATION

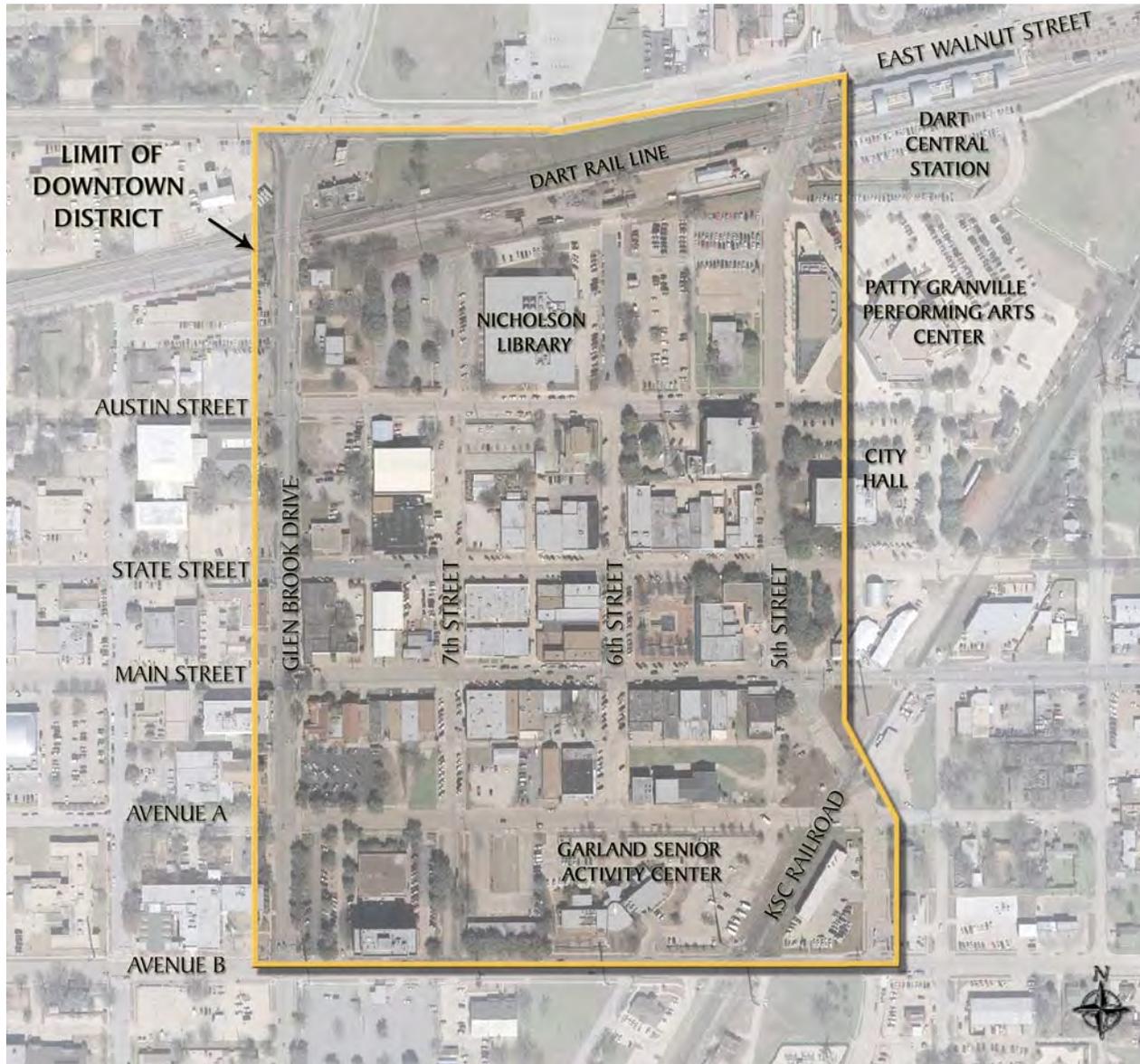
These guidelines are not intended to restrict creativity. The understanding is that each project has distinctive site features, and that alternate solutions may be presented to the City of Garland Planning Department for consideration. Refer to City codes and standards regarding issues not specifically addressed in the ordinance that may arise during the development of the subject site. All development within the downtown district shall conform to the guidelines established within this document, unless they are exempt due to the following:

- (a) Interior modifications that do not visually alter the exterior of the structures
- (b) Structures that have been destroyed by act of nature
- (c) Single-family homes.

The provisions of this district shall be approved through the City of Garland Planning Department

INTRODUCTION, GOALS AND IMPLEMENTATION





The bordering streets to the downtown district limits are Glenbrook Drive to the west, Walnut Street to the north and 5th Street to the east. Avenue B is the southern boundary of the downtown district.

DOWNTOWN DISTRICT MAP

Code - The City of Garland Code of Ordinances

Crosswalk - (a)The part of a roadway at an intersection included within the connections of the lateral lines of the sidewalks on opposite sides of the highway measured from the curbs or in the absence of curbs, from the edges of the traversable roadway, and in the absence of a sidewalk on the sidewalk at right angles to the centerline; (b) any portion of a roadway at an intersection or elsewhere distinctly indicated as a pedestrian crossing by lines on the surface which may be supplemented by contrasting pavement texture, style, or color

Groundcover - Any of a variety of low-growing or trailing plants used to cover the ground in areas

Harmony - A quality that represents an appropriate and congruent arrangement of parts

Landscaping - Landscaping shall be defined as consisting of, but not limited to, turf, trees, shrubs, flowers, vines, and other groundcovers, native trees and shrubs, natural land forms, water forms, planters, other landscape features, walks, and plaza areas consisting of enhanced paving

MUTCD - Manual on Uniform Traffic Control Devices for Streets and Highways

Ornamental Grass - Herbaceous plants with narrow leaves growing from the base grown as ornamental plants (i.e. Miscanthus, Pennisetum)

Ornamental Tree - Tree smaller in nature than shade trees and usually has an interesting flower or other characteristic

Plant materials - Trees, shrubs, vines, groundcovers, turf, perennials, annuals, and bulbs

Right-Of-Way (R.O.W.) - Public land bordering or bisecting public or

private land in which utilities may be located and pedestrian or vehicular traffic may freely pass

Screening - Structure or planting that conceals from view of public ways the areas behind such structure or planting

Shade Tree - A single trunk tree that has a overhead canopy of shading limbs and foliag.

Shrub - A multi-stemmed woody plant other than a tree

Sidewalk - The portion of a street between the curb line, or the lateral line of a roadway, and the adjacent property line. It may also be located in easements of private property that is paved or improved and is intended for use by pedestrians

Stop Line - A solid white pavement marking line white line that extends across approach lanes to indicate the point at which the stop is intended or required to be made

Streetscape - The scene as may be observed along a public street or way. It is composed of natural and man-made components, including buildings, paving, planting, street furnishings, and miscellaneous structures

Street Tree - Trees planted in the open space or parkway between the sidewalk or building and the street

Visibility Triangle - Vision shall be clear between the elevation of three (3) feet and nice (9) feet above the average street grade and within a triangle measuring forty-five (45) feet from the corner along the two street curb lines. No fence, wall, screen, billboard, sign, structure, or foliage of hedge, tree, or shrub shall be erected, planted, or maintained in such a position or placed as to obstruct or interfere with the minimum sight line standards

DEFINITIONS

“Streetscape” is defined as the scene as may be observed along a public street or way composed of natural and man-made components, including buildings, paving, planting, street furnishings, and miscellaneous structures. Providing common elements within the district helps to create a sense of place. A sense of place makes a place memorable, appealing, and comfortable.

Pedestrian scaled elements within the streetscape give pedestrians points of interaction with the environment. Instead of the streetscape being a passive space, they are encouraged to linger in the space and become an important component of the streetscape environment.

The materials that are incorporated as a part of this study have been recommended due to their longevity, ease of maintenance, and ability to withstand harsh conditions. The following materials are a part of the streetscape:

(a) Pedestrian pole lights should be spaced at approximately 80’-0” on center. Pedestrian pole lights should have a single banner. Note that there will be no banners located at the intersections.

(b) Benches shall be located at an approximate interval of 125’. Benches shall be oriented towards the architecture. Trash receptacles shall be located a maximum of 30’ from each bench location. **The proposed bench and trash receptacles are to be located on a plan and submitted to the city for approval.**

(c) Clay pavers are to be used at all intersections and are encouraged to be used at all major building entrances, however, the use of pavers shall not dominate over the use of live plant material.

(d) Proposed bike racks, planter pots, and bollards **are to be located on a plan and submitted to the city for approval.** Planter pots are recommended at main entrances. Bike racks shall be located within 200’ of a building entrance.

(e) Street trees, low landscaping, screening, and irrigation refer to landscape requirements within this document. The use of artificial plant material is prohibited.

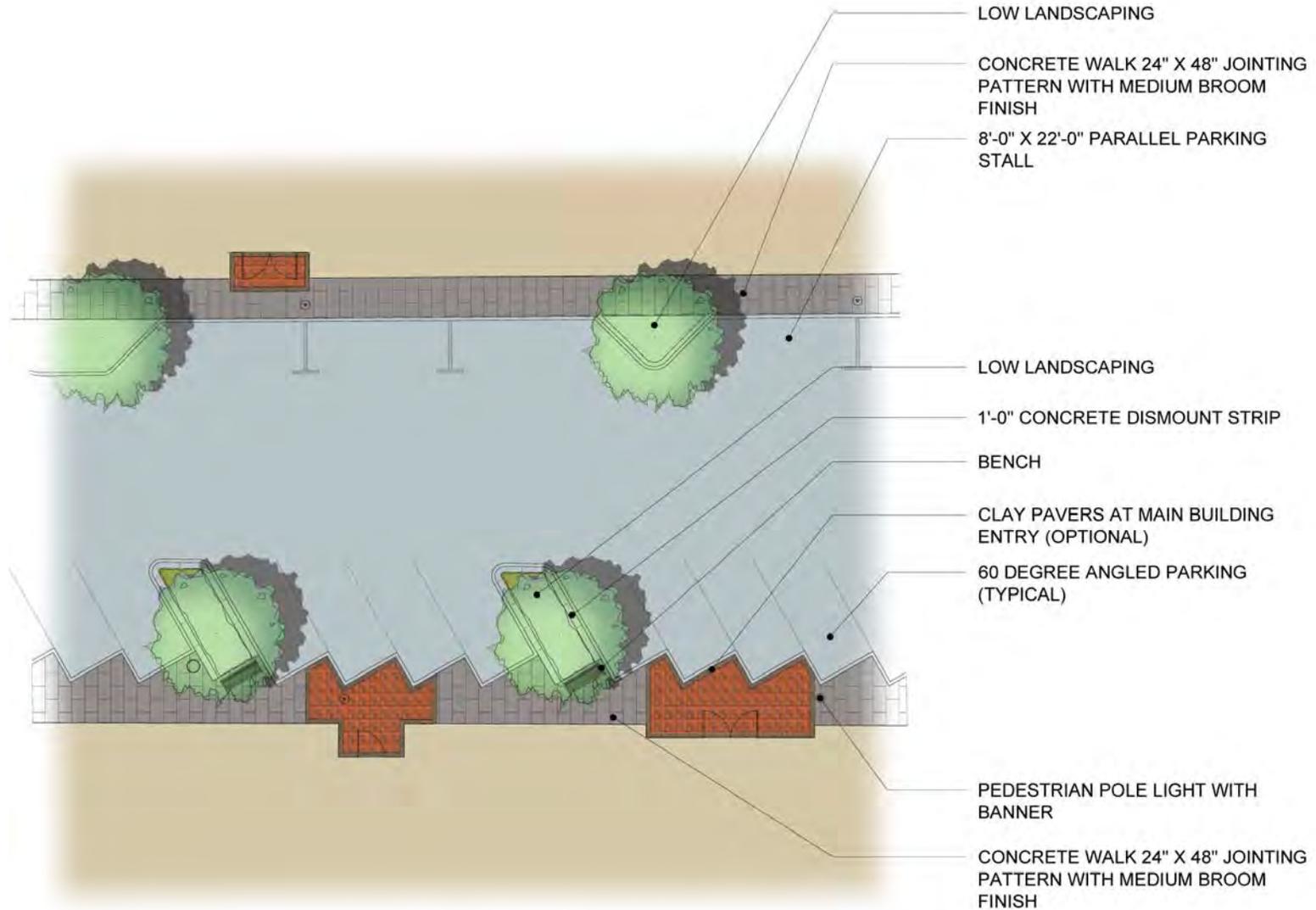
(f) Tree grates should be used where clear walk widths are less than 6’-0” wide or at the city or developers discretion.

On-street parking is another element that is a part of the streetscape. Parking makes this area user-friendly and provides a buffer between the pedestrian zone and the vehicular travel lane. Details of parking for this district are provided within this document. Where on-street parking is adjacent to landscaping, a 1’-0” dismount concrete strip or double header course paver shall be provided behind the curb.

Off-street parking and dumpsters must be screened from the public right-of-way. Dumpsters visible from the public right-of-way must be screened with an 6’-0” high brick screenwall. Off-street parking shall be screened with a 3’-0” brick screenwall or evergreen shrubs to be maintained at a minimum 3’-0” height.

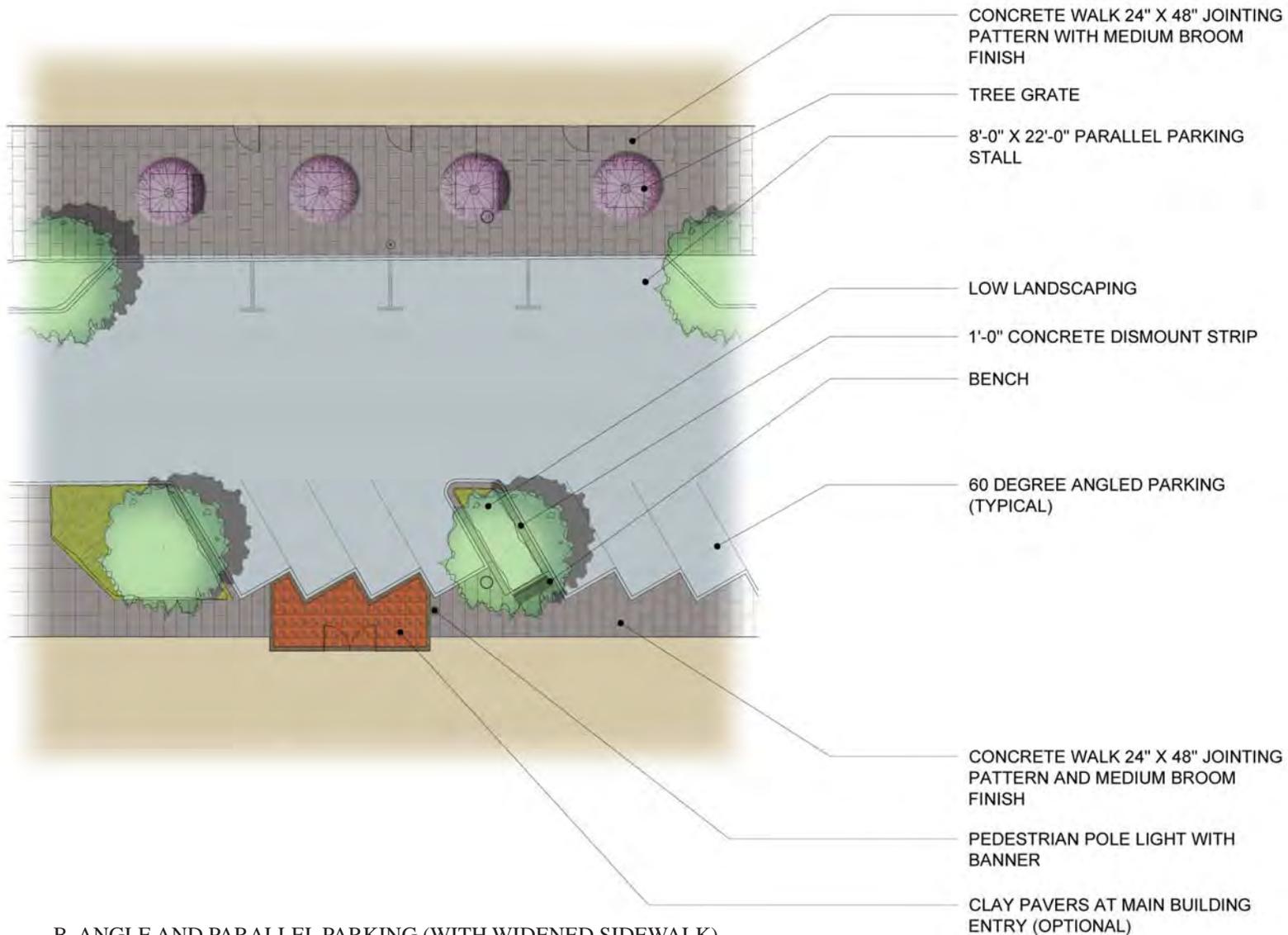


STREETSCAPE DESIGN CRITERIA



A. ANGLE AND PARELLEL PARKING (WITH MINIMUM WIDTH SIDEWALK)

STREETScape ILLUSTRATIONS
 VARIOUS DESIGN SCENERIOS



B. ANGLE AND PARALLEL PARKING (WITH WIDENED SIDEWALK)

STREETSCAPE ILLUSTRATIONS

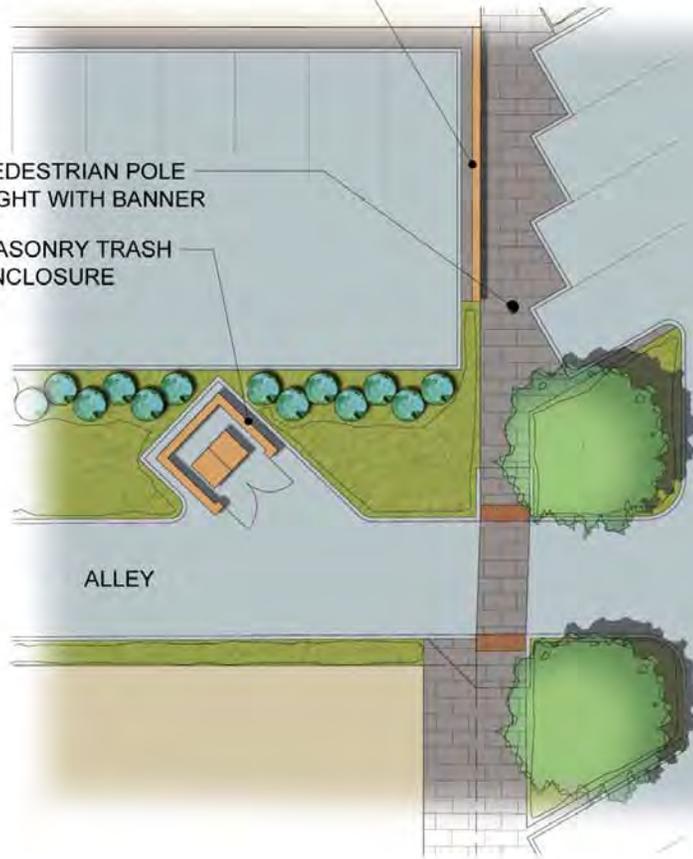
VARIOUS DESIGN SCENERIOS

Garland Downtown Urban
Design Guidelines

PARKING LOT SCREEN
(3'-0" MASONRY WALL OR
SCREENING SHRUBS)

PEDESTRIAN POLE
LIGHT WITH BANNER

MASONRY TRASH
ENCLOSURE



ALLEY

C. ALLEY AND DUMPSTER LANDSCAPE TREATMENTS

60 DEGREE ANGLED PARKING
(TYPICAL)

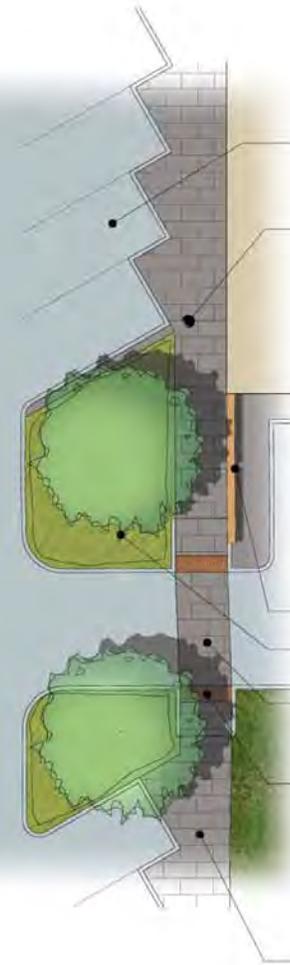
PEDESTRIAN POLE LIGHT
WITH BANNER

PARKING LOT SCREEN
LOW LANDSCAPING

6'-0" CROSSWALK AT ALLEY WITH 24"
X 48" TOOLED JOINTING PATTERN

2'-0" BAND TRUNCATED DOMES / ADA
PAVERS

CONCRETE WALK 24" X 48" JOINTING
PATTERN WITH MEDIUM BROOM
FINISH



STREETScape ILLUSTRATIONS

VARIOUS DESIGN SCENERIOS

Garland Downtown Urban
Design Guidelines

Signage and wayfinding elements within the district help give a sense of arrival and comfort to those visiting the area. They aid in transportation and they inform visitors and residents of amenities and events that the city offers.

Signage and wayfinding elements should be defined at both pedestrian and vehicular levels. Entry monuments or portals could be erected at the district entrance. Pedestrian kiosks can be installed to announce important events in the district. Directional signage helps those not familiar with the area find City Hall, Granville Arts Center, and the DART station. Banners on the pedestrian pole lights also aid in defining the district and providing pertinent information.

The goal is to simplify the routes around the district and highlight the area’s amenities and services in an attractive and informative manner.

Signage Concepts

- * Monument Signs
- * Monumental Columns
- * Banners

Wayfinding Concepts

- *Vehicular Directional System
- *Pedestrian Directional System
- *Pedestrian Interpretative System
(Historical Markers/Sites of Interest/Kiosk /Bulletin Board)

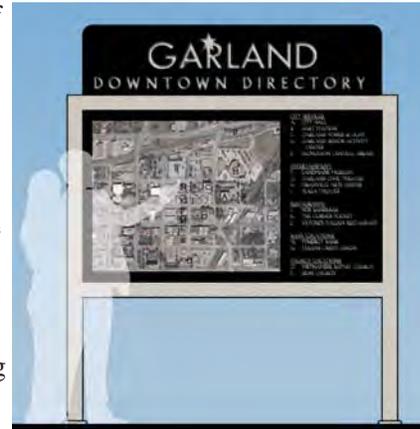


Illustration of Information Kiosk

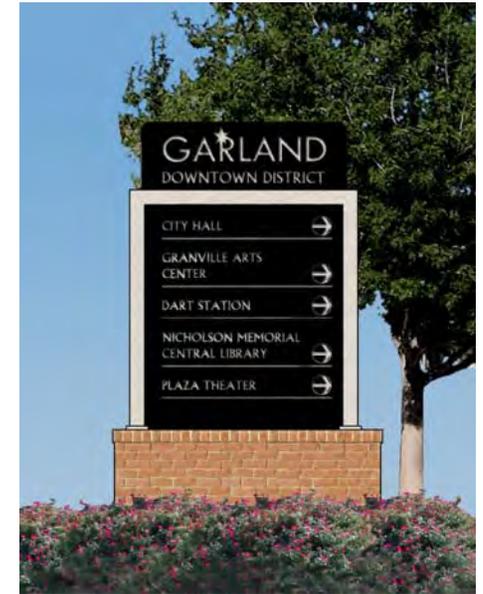


Illustration of Vehicular Directional Signage



Illustration of Monumental Column



Illustration of Monument Sign



Illustration of Banner on Pedestrian Light

SIGNAGE AND WAYFINDING ELEMENTS

It is the intent to provide clear pedestrian and vehicular circulation throughout the downtown sector. The use of landscape plantings, special paving, hardscape elements, and lighting at intersections helps to establish the character of downtown and enhance the pedestrian experience.

The intersections will be developed with enhanced paving within the crosswalks. The crosswalks will have an 8'-0" minimum width and a 10'-0" maximum width. The crosswalks will be clay pavers in a 90 degree herringbone pattern with a single header around the field and a double header course at the base of the ramp as shown in the illustration. Stop lines are to be located 5'-0" from the edge of the crosswalk and shall be 2'-0" wide. All four corners are to be at street grade (refer to the intersection illustrations for the location of the curb transition). There will be a continuous 2'-0" wide band of truncated domes /ADA pavers at the base of the ramp. Clay pavers will continue on the sidewalks (as they intersect at the corner) and will be used in a 90 degree herringbone pattern with a single course header. Non-lighted bollards are shown on all four corners to separate vehicular and pedestrian traffic. Install bollards 2'-0" from the inside edge of the truncated domes / ADA paver band. It is the intent to keep the visibility triangle clear at all intersections. Where room allows, an 18" high seatwall shall be integrated into the intersection design as shown on the illustration.

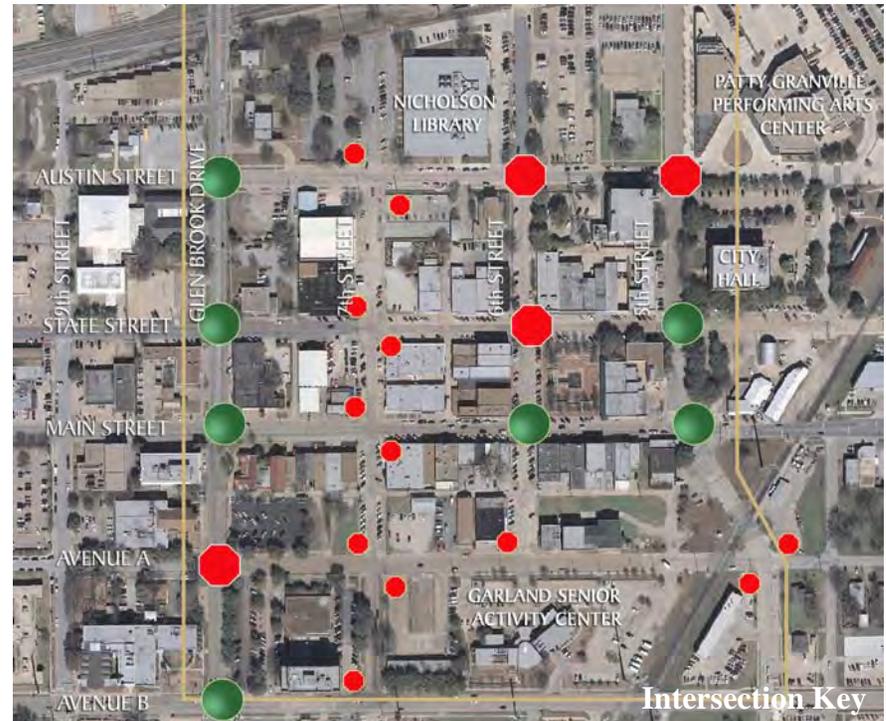
Signal pole locations at signalized intersections to vary. Placement is dependent on locations of underground and overhead utilities. Traffic signal pole will utilize the same light fixture as the pedestrian pole lights.

Pedestrian pole lighting to be combined with stop signs at four-way stop intersections. Stop signs are to be located immediately adjacent to the stop line. No banners are to be placed on the pedestrian pole lights at intersections.

Where secondary streets have stop signs, the paving shall transition to a 48" x 48" jointing pattern at the corners. A 6'-0" wide curb ramp with a 2'-0" band of truncated domes/ADA pavers shall be installed. The curb

ramps will be connected with an 8'-0" crosswalk. The crosswalks will be clay pavers in a 90 degree herringbone pattern with a single header around the field.

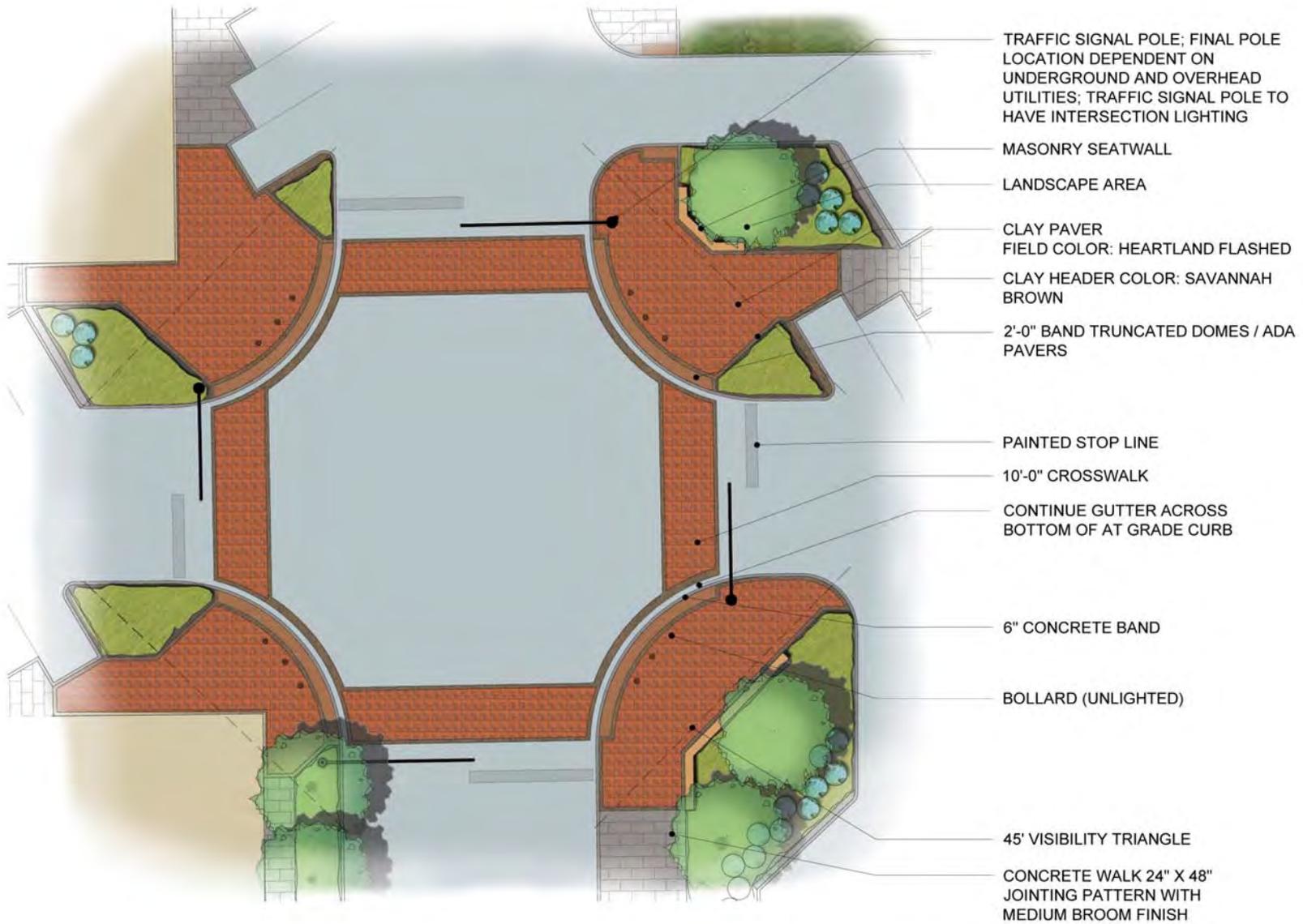
Crosswalks at alley crossings shall continue the 24" x 48" tooled concrete jointing pattern.



Legend

-  Signalized Intersection
-  4-Way Stop
-  Stop Sign on Secondary Street

INTERSECTION DESIGN CRITERIA



TYPICAL INTERSECTION ILLUSTRATION
 SIGNALIZED

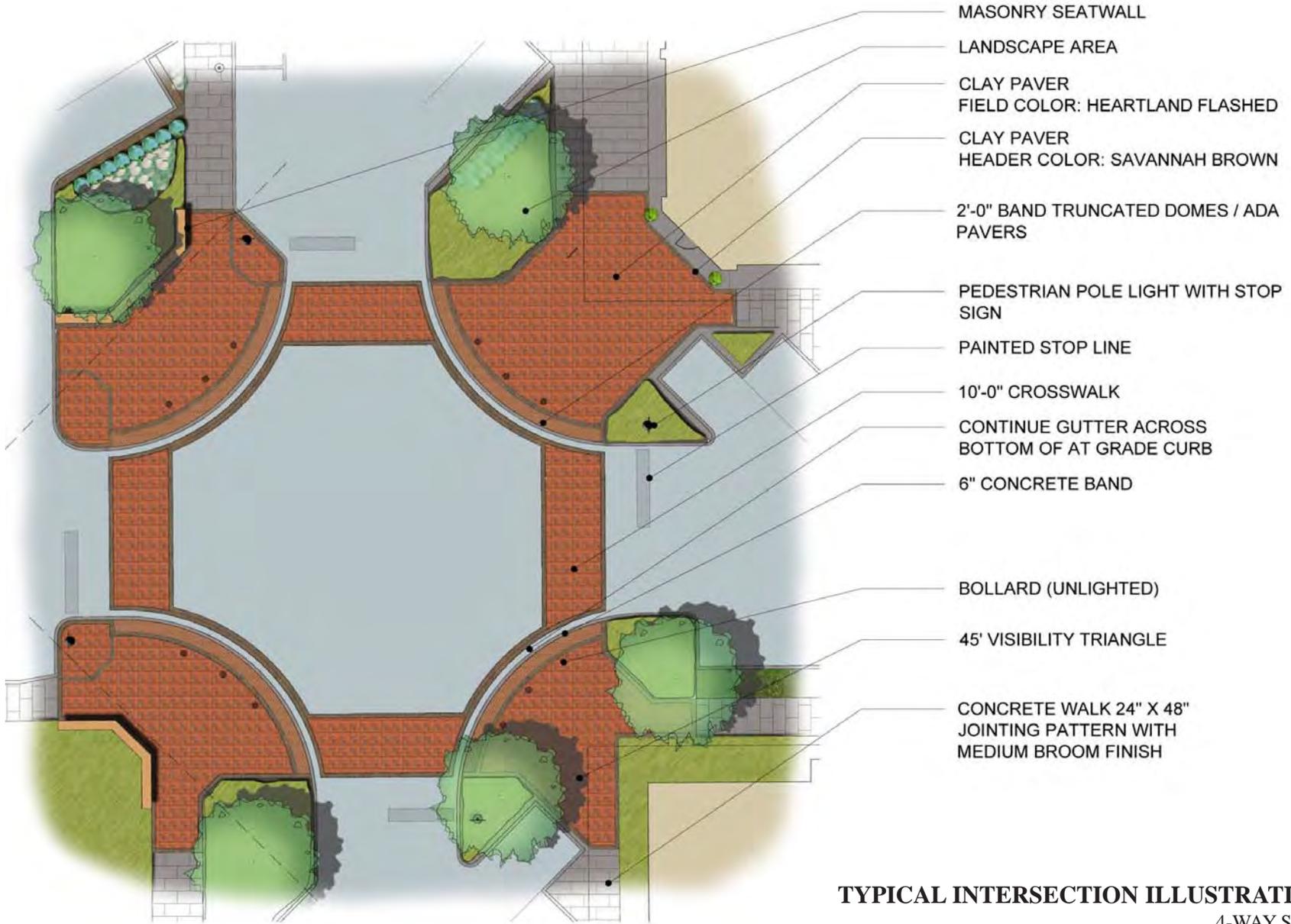


View of Existing Signalized Intersection at 6th and Main



Design Standards Applied to 6th and Main

TYPICAL INTERSECTION ILLUSTRATION
SIGNALIZED



TYPICAL INTERSECTION ILLUSTRATION
4-WAY STOP



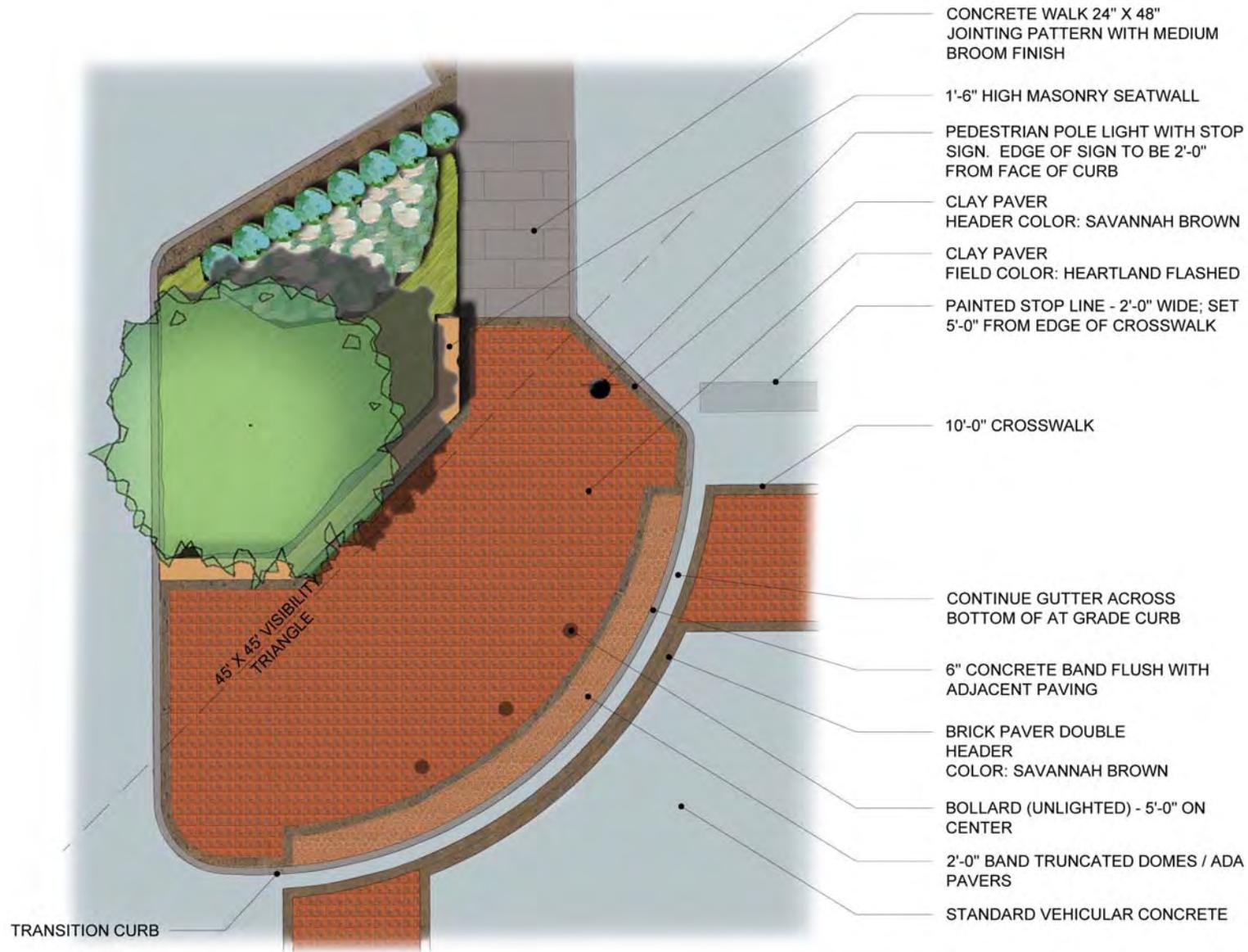
View of Existing Intersection
at 6th and State



Design Standards Applied to 6th and State

TYPICAL INTERSECTION ILLUSTRATION

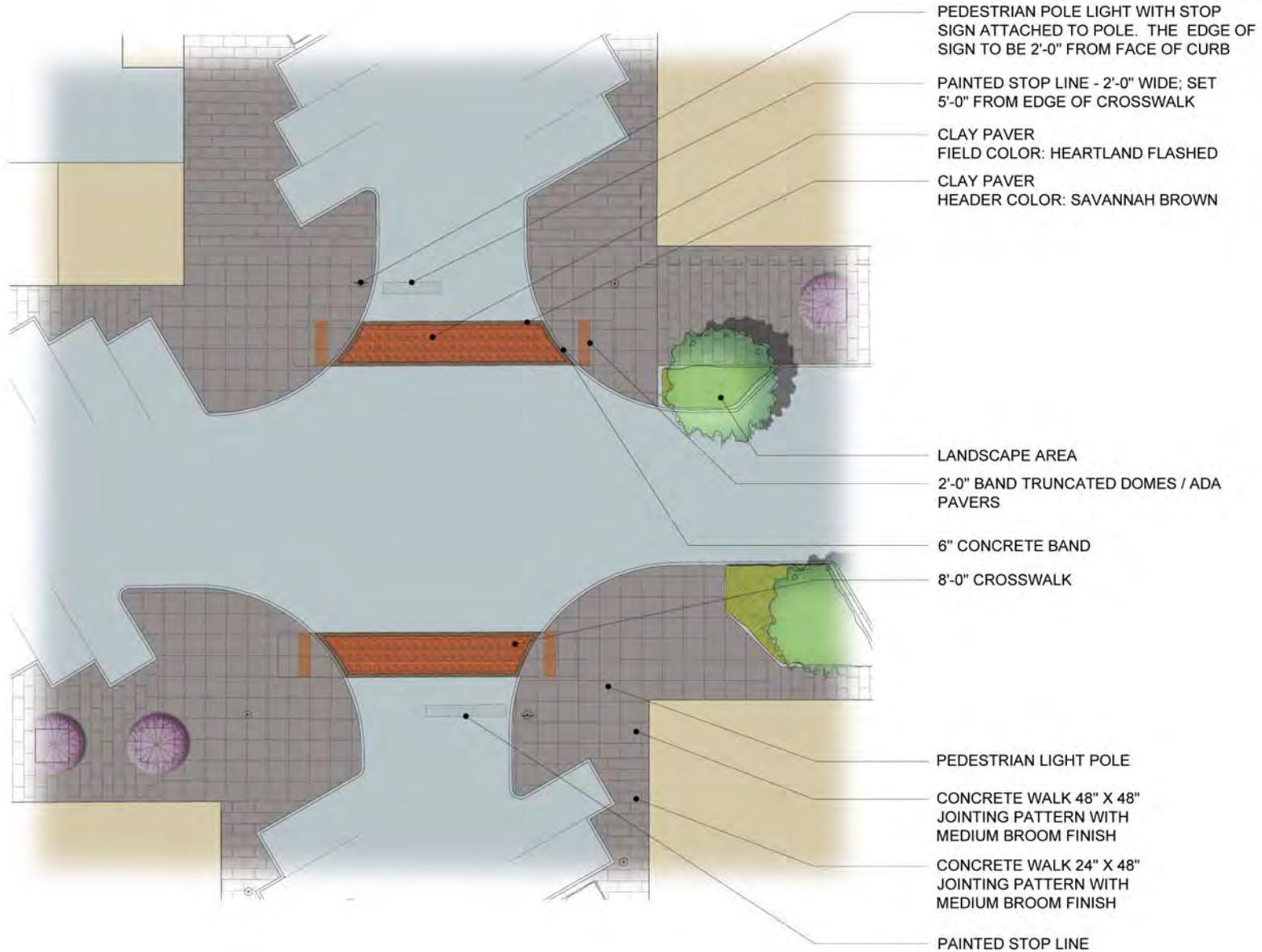
4-WAY STOP



CONTROLLED INTERSECTION ILLUSTRATION
ENLARGEMENT



4-WAY STOP ILLUSTRATION



SECONDARY INTERSECTION ILLUSTRATION



Artist rendering depicting the design standards applied to the downtown district.

DOWNTOWN DISTRICT ILLUSTRATION

Manufacturer: **BORAL**

Local Representative: Boral Bricks
Phone: 972-245-1542

Specifications:

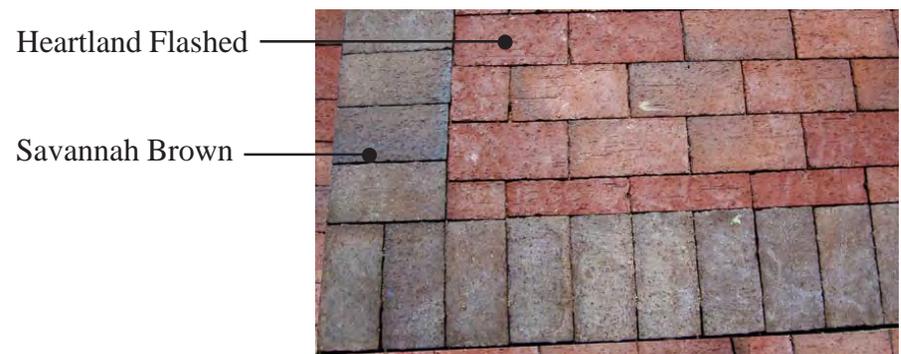
- 4" x 8" x 2 1/4" Standard Straight Edge
- 90 Degree Herringbone Pattern (Field)
- Header Coarse

Color:

- Heartland Flashed (Field)
- Savannah Brown (Header)

Location:

- Refer to Intersection and Streetscape Plan



CLAY PAVERS
Manufacturer: BORAL

Manufacturer: **WHITACRE-GREER**

Local Representative: Metro Brick & Stone Company
Phone: 972-991-4488
Fax: 972-991-6769

Specifications:

- 4" x 8" x 2 1/4" Beveled Edge

Color:

- Cinnamon

Location:

- Refer to Intersection Plan and Streetscape Plan
- Typical at all ADA/Curb Ramps



TRUNCATED DOME / ADA PAVERS
Manufacturer: WHITACRE-GREER

Specifications:

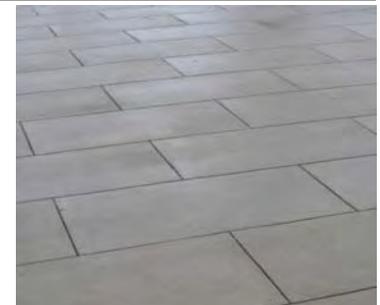
- 4" Typical Thickness
- 24" x 48" Jointing Perpendicular to Curb
- Tooled Joints

Finish:

- Medium Broom

Location:

- Refer to Streetscape and Intersection Plan



TYPICAL PEDESTRIAN CONCRETE PAVING

Fixture: **ERA HERITAGE**

Manufacturer: **KIM LIGHTING**
www.kimlighting.com

Local Representative: Hossley Lighting
Phone: 214-413-7011
Fax: 214-742-5182

Specifications:

- Single or Double Mounting(1A or 2B)
- Side Mounted Arm (HA11S)
- 16' (HAS16-5188A) or 20' (HAS20-5188A) Straight Pole
- 150 Pulse Start Metal Halide Multi-Tap Ballast

Color: • Black

Fixture: **ERA HERITAGE**

Manufacturer: **KIM LIGHTING**
www.kimlighting.com

Local Representative: Hossley Lighting
Phone: 214-413-7011
Fax: 214-742-5182

Specifications:

- **For Fixtures Requiring Type II Distribution (Typical Street Light):**
1A / HA11S / RA172 / 150PMHMT / BL / HAS16-5188A / BL / A25PTR / With (2) 18" Breakaway Banner Arms (Banners available from the City of Garland)
- **For Fixtures Requiring Type IV Distribution (Typical Intersection Light):**
1A / HA11S / RA174 / 150PMHMT / BL / HAS16-5188A / BL / A25PTR / With (2) 18" Breakaway Banner Arms (Depending on Location) Note: No Banner Arms at intersections.
- **For Fixtures Requiring Type V Distribution:**
1A / HA11S / RA175 / 150PMHMT / BL / HAS16-5188A / BL / A25PTR / With (2) 18" Breakaway Banner Arms.
- Single Mounting (1A) / Side Pole Swept Cast Arm Arm (HA11S)/ Fixture RA17 / 150 Pulse Start with Metal Halide Multi-Tap Ballast / 16' Straight Aluminum Pole (HAS16-5188A)/ (2) 18" Break Away Banner Arms where noted
- Lower Banner Arm to be Installed 10'-0" from the finished grade typical. Note: No Banner Arms at intersections.

Color: • Black



TYPICAL PARKING LOT FIXTURE

Manufacturer: KIM LIGHTING



TYPICAL INTERSECTION AND STREETScape FIXTURE

Manufacturer: KIM LIGHTING

Fixture: **ROUND VANDAL RESISTANT BOLLARD (VRB3)**

Manufacturer: **KIM LIGHTING**
www.kimlighting.com

Local Representative: Hossley Lighting
Phone: 214-413-7011
Fax: 214-742-5182

Specifications:

- 36" High x 8" Diameter
- Flat Top

Color:

- Black

Mounting:

- Embedded

Location:

- Developer shall submit a plan to the city showing the proposed location for approval



BOLLARD

Manufacturer: KIM LIGHTING

Fixture: **DBF17 - HORIZONTAL SPOT**

Manufacturer: **KIM LIGHTING**
www.kimlighting.com

Local Representative: Hossley Lighting
Phone: 214-413-7011
Fax: 214-742-5182

Specifications:

- Install In Concrete

Color:

- Black

Location: To be used for Monument Sign Lighting



MONUMENT SIGN UPLIGHT

Manufacturer: KIM LIGHTING

Model: **BENCH 19**

Manufacturer: **DuMOR SITE FURNISHINGS**
www.dumor.com

Local Representative: Paul E. Allen Co., Inc.
Phone: 972-724-2656
Fax: 972-724-2659

Specifications:

- 8' or 6' Length
- Backed
- Center Arm Rest Required for 8' Benches / Optional for 6' Benches
- 5/8" Diameter Steel Bars

Color:

- Black

Mounting:

- Surface Mount with Vandal Resistant Hardware

Location:

- Developer shall submit a plan to the city showing the proposed location for approval



BENCH

Manufacturer: DuMOR SITE FURNISHINGS

Model: **SCARBROUGH**

Manufacturer: **LANDSCAPE FORMS, INC.**
www.landscapeforms.com

Local Representative: Landscape Forms - Dallas Sales Office
Phone: 214-343-1145
Fax: 214-340-6769

Specifications:

- 30 Gallon
- Side-Opening
- Horizontal Strap

Color:

- Black

Mounting:

- Surface Mount with Vandal Resistant Hardware

Location:

- Developer shall submit a plan to the city showing the proposed location for approval



TRASH RECEPTACLE

Manufacturer: LANDSCAPE FORMS, Inc.

Model: **NAPOLEAN**

Manufacturer: **LANDSCAPE FORMS, INC.**
www.landscapeforms.com

Local Representative: Landscape Forms - Dallas Sales Office
Phone: 214-343-1145
Fax: 214-340-6769

Specifications:

- 85 oz. Capacity Urn

Color:

- Black

Mounting:

- Surface Mount with Vandal Resistant Hardware

Location:

- Locate 25' from Main Entrances; developer shall submit a plan to the city showing the proposed location for approval



ASH URN

Manufacturer: LANDSCAPE FORMS, Inc.

Model: **ROUND VANDAL RESISTANT BOLLARD (VRB3)**

Manufacturer: **KIM LIGHTING**
www.kimlighting.com

Local Representative: Hossley Lighting
Phone: 214-413-7011
Fax: 214-742-5182

Specifications:

- Unlighted
- 36" High x 8" Diameter
- Flat Top
- Weld Plate Inside Louver

Color:

- Black

Mounting:

- Embedded

Location:

- Refer to Typical Intersection Plan



UNLIGHTED BOLLARD

Manufacturer: KIM LIGHTING

Model: **TRN SERIES**

Manufacturer: **FAIR WEATHER SITE FURNISHINGS**
www.fairweathersf.com

Local Representative: Resource Consulting Services
Phone: 972-492-2428
Fax: 972-492-3155

Specifications:

- 60” Square with 16” Diameter Hole
- Custom Text to Read “Garland / Est. 1891”

Color:

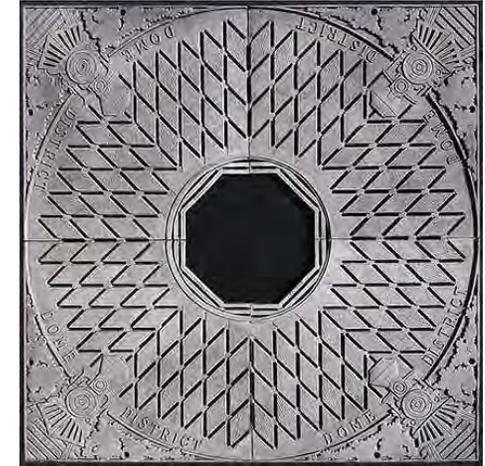
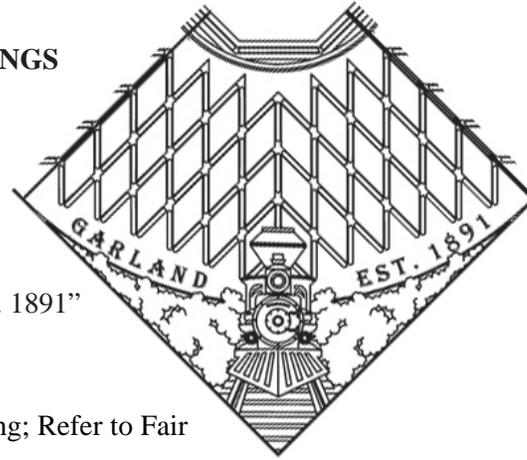
- Ductile Cast Iron

Framing Style:

- Varies Depending on Adjacent Paving; Refer to Fair Weather Catalog for Framing Options

Location:

- To be used where clear walk widths are less than 6’-0” wide or at the City or Developers Discretion.



TREE GRATE

Manufacturer: FAIR WEATHER SITE FURNISHINGS

Model: **LOOP BIKE RACK 83**

Manufacturer: **DuMOR SITE FURNISHINGS**
www.dumor.com

Local Representative: Paul E. Allen Co., Inc.
Phone: 972-724-2656
Fax: 972-724-2659

Specifications:

- 2 3/8” Diameter

Color:

- Black

Mounting:

- Sub-Floor at Pavers / Surface at Concrete Paving

Location:

- Bike racks shall be installed at developers discretion; developer shall submit a plan to the city showing the proposed location for approval



BIKE RACK

Manufacturer: DuMOR SITE FURNISHINGS, Inc.

Model: **GIANT SEQUIOA OR BANANA URN
OLYMPUS JAR OR ANG POT WITH RIPPLE
SALA POT OR MONTANO BOWL PLANTER**

Manufacturer: **ANAMESE GARDEN & HOME OR
JACKSON POTTERY**

Local Representative: Anamese Representative:
Creative Water Gardens
Phone: 972-271-1411

Jackson Pottery
Phone: 214-350-2900

Specifications:

- Giant Sequoia (36" high x 35" wide) OR Banana Urn (36" high x 35 1/2" wide; Model # ADR-20-C)
- Olympus Jar (27" high x 30" wide) OR Ang Pot with Ripple (27" high x 36" wide; Model # ADR-10-C)
- Sala Pot (Medium: 13.5" high x 27.5" wide) (Large: 18" high x 37.5" wide) OR Montano Bowl Planter (Medium: 14" high x 29 1/2" wide; Model # ADR-57-B) (Large: 17 1/2" high x 39 1/4" wide; Model # ADR-57-C)
- Connect Planter Pot Drainage to Site Drainage System

Color: • Old Stone (Anamese) / Not Applicable for Jackson Pottery

Location: Planter Pots are to be installed at City or Developers Discretion, but are encouraged to be located at Main Entrances; developer shall submit a plan to the city showing the proposed location for approval



SALA POT



OLYMPUS JAR

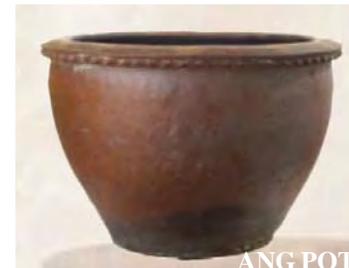


GIANT SEQUIOA

ANAMESE GARDEN PLANTER POTS



MONTANO BOWL



ANG POT



BANANA URN

JACKSON POTTERY PLANTER POTS

PLANTER POTS

Manufacturer: ANAMESE GARDEN & HOME OR JACKSON POTTERY

Landscaping is an important part of the downtown structure. It helps to:

- (a) Define pedestrian and vehicular space
- (b) Offer a sense of visual unity
- (c) Provide shade
- (d) Buffer noise from street traffic
- (e) Reduce the heat and glare from surrounding buildings and pavement.
- (f) Bring the scale of the environment to a pedestrian level.

Planting within the designated landscape areas shall be selected from the approved plant palette. Consideration should be made regarding planting locations and the mature size of the plants to prevent conflicts with sidewalks or visibility. No plant material shall be located within visibility triangles at intersections and driveways, unless they are below 30” in height above curb. All landscape designs must meet minimum local ordinances.

All fences and walls are to be screened with a living screen where there is available area to support the growth of a living screen. A living screen is to consist of evergreen trees and shrubs. Where there is not an acceptable amount of room for a living screen, vines are to be planted to provide continuity and a softer feel for the walls and fences. The screen plantings should cover 85% of the wall or fence (after 2 years).

All parking lots are to be screened with a continuous evergreen screen or 3’-0” brick wall. The evergreen screen should be maintained at 3’-0” maximum.

All areas that do not have shrubs, groundcover, perennials or seasonal color must be sodded with Common Bermudagrass.

All landscape areas shall be irrigated according to state and local codes. An automatic irrigation system must be designed to accompany all landscape plantings. Irrigation systems shall be designed so as not to spray water onto adjacent roadways or to permit excessive runoff from landscape areas onto pavements. Drip irrigation is encouraged for planting beds. All exposed mechanical equipment such as automatic controllers and backflow preventers must be screened.

The abutting private property owner will be required to maintain all landscaping and irrigation equipment within the street right-of-ways.

LANDSCAPE AND DESIGN CRITERIA

The following is a list of plant materials that are recommended for this area. Other plant materials may be used with approval, but priority should be give to plants on this palette. The planting of native and or adapted plants is encouraged.

Street Trees		
<i>Scientific Name</i>	<i>Common Name</i>	<i>Minimum Installed Size</i>
<i>Quercus shumardii</i>	Shumard Red Oak	100 gallon; Minimum 3 1/2"- 4" caliper, 13'-15' height, 7'-8' spread, full head, matched, and branching at ± 6'.
<i>Quercus virginiana</i> 'QVTIA' P.P. 11219	'Highrise' Live Oak	100 gallon; Minimum 3 1/2"- 4" caliper, 13'-15' height, 7'-8' spread, full head, matched, and branching at ± 6'.
<i>Ulmus parvifolia</i> 'Allee'	Allee Elm	100 gallon; Minimum 3 1/2"- 4" caliper, 13'-15' height, 7'-8' spread, full head, matched, and branching at ± 6'.

Shade Trees		
<i>Scientific Name</i>	<i>Common Name</i>	<i>Minimum Installed Size</i>
<i>Magnolia grandiflora</i> 'D. D. Blanchard'	D. D. Blanchard Southern Magnolia	65 gallon; Minimum 3" caliper, 12' height, and 7' spread.
<i>Pistacia chinensis</i>	Chinese Pistache	65 gallon; Minimum 3" caliper, 12' height, and 5' spread.
<i>Quercus virginiana</i>	Live Oak	65 gallon; Minimum 11'-12' height, and 5' spread.

Ornamental Trees		
<i>Scientific Name</i>	<i>Common Name</i>	<i>Minimum Installed Size</i>
<i>Cercis canadensis</i> 'Forest Pansy'	'Forest Pansy' Redbud	Minimum 3" caliper, 10' height, and 6' spread; Multi-trunk.
<i>Cercis canadensis</i> 'Oklahoma'	'Oklahoma' Redbud	30 gallon; Minimum 2" caliper, 10' height, and 4 1/2' spread.
<i>Chilopsis Linaris</i>	Desert Willow	Minimum 2" caliper, 10' height, and 4' spread.
<i>Ilex x attenuata</i> 'Fosteri'	Foster's Holly	30 gallon; Minimum 8' height and 5' spread; Multi-trunk.
<i>Ilex x attenuata</i> 'Savannah'	Savannah Holly	30 gallon; Minimum 2" caliper, 9' height, and 5 1/2' spread, full-to-ground or standard.
<i>Ilex decidua</i> 'Warren's Red'	Deciduous Yaupon 'Warren's Red'	Minimum 8' height and 4'-1/2" spread.
<i>Ilex</i> 'Nellie R. Stevens'	Nellie R. Stevens Holly	30 gallon; Minimum 6' height and 3' spread.

Ornamental Trees (Continued)		
<i>Juniperus virginiana</i> 'Spartan'	Spartan Juniper	Minimum 7' height.
<i>Ilex vomitoria</i>	Tree Yaupon Holly	Minimum 10' height and 6' spread.
<i>Lagerstroemia indica</i> 'Muskogee', 'Tuscarora', 'Tuskegee'	Crape Myrtle	65 gallon; Minimum 12' height and 5' spread; Multi-trunk.
<i>Magnolia grandiflora</i> 'Little Gem'	Southern Magnolia 'Little Gem'	Minimum 2" caliper, 10' height, and 5' spread.
<i>Vitex Angus-castus</i>	'Shoal Creek' Vitex	Minimum 8' height and 4' spread, multi-trunked.

Shrubs		
<i>Scientific Name</i>	<i>Common Name</i>	<i>Minimum Installed Size</i>
<i>Abelia grandiflora</i> 'Edward Goucher'	Dwarf Abelia	5 gallon; Minimum 15" height and 15" spread.
<i>Aspidistra eliator</i>	Cast Iron Plant	1 gallon; Minimum 10" height .
<i>Aucuba japonica</i>	Aucuba	5 gallon; Minimum 15" height and 15" spread.
<i>Cyrtomium falcatum</i>	Holly Fern	5 gallon; Minimum 15" height and 15" spread.
<i>Elaeagnus macrophylla</i> 'Ebbenji'	Elaeagnus	5 gallon; Minimum 18" height and 16" spread.
<i>Hesperaloe parviflora</i>	Red Yucca	5 gallon; Minimum 12" height x 12" spread.
<i>Hydrangea quercifolia erythrosora</i>	Oakleaf Hydrangea	5 gallon.
<i>Juniperus chinensis</i> 'Sea green'	Juniper 'Sea Green'	5 gallon; Minimum 30" height x 24" spread.
<i>Juniperous horizontalis</i> 'Bar Harbour'	Juniper 'Bar Harbour'	5 gallon; Minimum 15" height and 15" spread.
<i>Juniperus horizontalis</i> 'Wiltoni'	Blue Rug Juniper	5 gallon; Minimum 15" height and 15" spread.
<i>Ilex cornuta</i> 'Burfordii Nana'	Dwarf Burford Holly	5 gallon; Minimum 15" height and 12" spread.
<i>Ilex cornuta</i> 'Carissa'	Carissa Holly	5 gallon; Minimum 20" height and 18" spread.
<i>Ilex cornuta</i> 'Needlepoint'	Needle Point Holly	7 gallon; Minimum 36" height and 30" spread.
<i>Ilex vomitoria</i> "Nana"	Dwarf Yaupon Holly	5 gallon; Minimum 15" height x 15" spread.

PLANT PALETTE

Garland Downtown Urban
Design Guidelines

Shrubs (Continued)		
<i>Leucophyllum frutescens</i> 'Compactum'	Texas Sage 'Compactum'	5 gallon; Minimum 24" height and 18" spread.
<i>Leucophyllum frutescens</i> 'Green Cloud'	Texas Sage 'Green Cloud'	5 gallon; Minimum 24" height and 18" spread.
<i>Liriope gigantea</i>	Giant Lily Turf	1 gallon; Minimum 10" height .
<i>Loropetalum chinensis</i> 'Burgundy'	Loropetalum 'Burgundy'	5 gallon; Minimum 15" height and 15" spread.
<i>Loropetalum chinensis</i> 'Petite Delight'	Loropetalum 'Petite Delight'	5 gallon; Minimum 24" height x 18" spread.
<i>Nandina domestica</i> 'Gulfstream'	Gulfstream Nandina	5 gallon: Minimum 15" height and 15" spread.
<i>Nandina domestica</i> 'Harbour Dwarf'	'Harbour Dwarf' Nandina	5 gallon; Minimum 15" height and 15" spread.
<i>Rosmarinus officinalis</i> 'Prostratus', 'Arp'	Prostrate Rosemary	5 gallon.
<i>Raphiolepis indica</i>	Indian Hawthorne 'Ballerina'	5 gallon; Minimum 12" height and 15" spread.
<i>Rosa banksiae</i>	Lady Banks Rose	5 gallon.
<i>Rosa 'Knockout'</i>	Rose 'Knock-out'	5 gallon.
<i>Spiraea X bumulda</i> 'Anthony Waterer'	Spirea 'Anthony Waterer'	5 gallon.
<i>Spiraea prunifolia</i>	Bridal Wreath Spiraea	5 gallon.
<i>Ternstroemia gymnanthera 'Jade Tiara'</i>	Cleyera	5 gallon; Minimum 24" height x 18" spread.
<i>Thelypteris normalis</i>	Wood Fern	1 gallon; Minimum 10" height.
<i>Yucca recurvifolia</i>	Softleaf Yucca	5 gallon. Minimum 21" height and 19" spread.

Perennials		
Scientific Name	Common Name	Minimum Installed Size
<i>Aquilegia chrysantha</i> var. <i>Hinkleyana</i>	Columbine Hincekeyana	1 gallon.
<i>Coreopsis grandiflora</i> 'Moonray'	Coreopsis	1 gallon.
<i>Echinacea purpurea</i>	Purple Coneflower	1 gallon.
<i>Gaura lindheimeri</i>	Gaura	1 gallon.
<i>Hemerocallis</i>	Daylily	1 gallon.

Perennials (Continued)		
<i>Lantana horrida</i>	Texas Lantana	1 gallon.
<i>Malvaviscus arboreus drummondii</i>	Turk's Cap	1 gallon.
<i>Melampodium cincereum</i>	Blackfoot Daisy	1 gallon.
<i>Perovskia atriplicifolia</i>	Russian Sage	1 gallon.
<i>Rudbeckia hirta</i>	Black-eyed Susan	1 gallon.
<i>Ruellia brittoniana 'Katie's Dwarf'</i>	Ruellia	1 gallon.
<i>Salvia greggii 'Coral'</i>	Autumn Sage	1 gallon.
<i>Salvia leucantha</i>	Mexican Bush Sage	3 gallon.

Ornamental Grasses		
Scientific Name	Common Name	Minimum Installed Size
<i>Calamagrostis x acutiflora 'Karl Foerster'</i>	Foerster's Feather Reed Grass	5 gallon; Minimum 15" height and 15" spread.
<i>Eragrostis curvula</i>	Weeping Love Grass	1 gallon.
<i>Miscanthus sinensis 'Adiago'</i>	Dwarf Maidengrass 'Adiago'	5 gallon; Minimum 15" height and 15" spread.
<i>Miscanthus sinensis 'Gracillimus'</i>	Maidengrass	5 gallon; Minimum 24" height and 24" spread.
<i>Miscanthus sinensis 'Variegatus'</i>	Japanese var. Silver Grass JAPANESE VAR.	3 gallon; Minimum 16" height and 16" spread.
<i>Muhlenbergia capillaris</i>	Gulf Muhly	3 gallon.
<i>Muhlenbergia lindheimeri</i>	Lindheimer's Muhly	3 gallon.
<i>Pennisetum alopecuroides "Hameln"</i>	Dwarf Hameln Grass	3 gallon; Minimum 12" height and 15" spread.
<i>Stipa tenuissima</i>	Mexican Feathergrass	1 gallon.

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Groundcover		
<i>Scientific Name</i>	<i>Common Name</i>	<i>Minimum Installed Size</i>
<i>Euonymus 'Coloratus'</i>	Purple Winter Creeper	1 gallon; Minimum 3 runners at 12" long.
<i>Liriope muscari 'Big Blue'</i>	'Big Blue' Liriope	4" pot.
<i>Liriope muscari variagatum</i>	Variegated Liriope	4" pot.
<i>Ophiopogon japonicus</i>	Mondo Grass	4" pot.
<i>Ophiopogon japonicus 'Nana'</i>	Dwarf Mondo Grass	4" pot.
<i>Trachelospermum asiaticum</i>	Asian Jasmine	1 gallon; Minimum 3 runners at 12" long.

Vines		
<i>Scientific Name</i>	<i>Common Name</i>	<i>Minimum Installed Size</i>
<i>Anisostichus Capreolata</i>	Cross Vine	1 gallon.
<i>Clematis paniculata</i>	Clematis	1 gallon.
<i>Gelsemium sempervirens</i>	Carolina Jessamine	1 gallon.
<i>Parthenocissus tricuspidata "Lowii"</i>	'Lowii' Boston Ivy	1 gallon.

Turf		
<i>Scientific Name</i>	<i>Common Name</i>	<i>Minimum Installed Size</i>
<i>Buchloe dactyloides</i>	'609' or 'Prairie' Buffalograss	Solid Sod.
<i>Cynodon dactylon</i>	Common Bermudagrass	Solid Sod.
<i>Stenotaphrum secundatum 'Raleigh'</i>	'Raleigh' St. Augustine	Solid Sod.

PLANT PALETTE

All street trees are required to have a minimum caliper size of 3 1/2" - 4", an approximate minimum height of 13'-15', and an approximate minimum spread of 7'-8'. The branching of each tree should be approximately 6'-0" above the adjacent sidewalk upon installation and maintained at 9'-0" once established. Each street to be lined with trees. Refer to the selected street trees list for the variety for each street. The minimum spacing between trees should be 30' and the maximum should be 40'-0" unless unattainable due to conflicts with visibility, utilities, etc. Trees are to be matched and have the same branching character and height above the ground level.

The abutting private property owner will be required to maintain all trees within the street right-of-ways. Tree pruning will be performed in accordance with the International Standards of Arboriculture (ISA) standards when trees block or touch any light pole fixtures, traffic signals or street signage. If the trees are overhanging the street, they are to be pruned so they do not cause a conflict with vehicles or pedestrians, or block visibility to traffic control devices or signage.

To help minimize tree root conflicts with adjacent paving, allow adequate planting room for the tree as it matures and implement the use of structural soils and root barriers. Root barriers to be installed if a tree is installed in a landscape area less than 6'-0" x 6'-0" and if planted closer than 3'-0" from the edge of a walk or curb.

Selected Street Trees

Street

Key

Tree

Glenbrook Drive / 6th Street

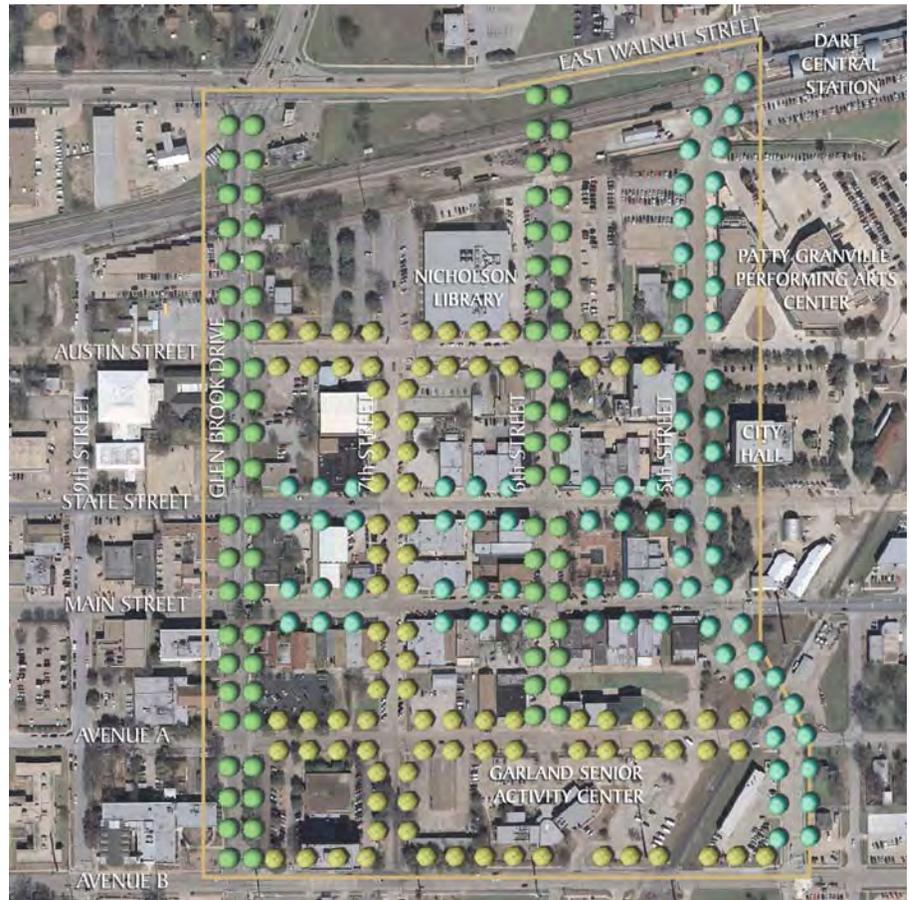


'Highrise' Live Oak
Quercus virginiana 'QVTIA'
P.P. #11219

Austin Street / 7th Street/
Avenue A / Avenue B



Shumard Red Oak
Quercus shumardii



Street Tree Plan

Main Street/ State Street /
5th Street



'Allee' Elm
Ulmus parvifolia 'Allee'

STREET TREE GUIDELINES