

# THREE SPRINGS DESIGN GUIDELINES

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## LANDSCAPE STANDARDS

FINAL: DECEMBER 3, 2012





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## 1.0 GENERAL LANDSCAPE GUIDELINES AND STANDARDS

Other documents to reference:

- Three Springs Codes and Standards
- Covenants, Conditions and Restrictions (CC&R's)
- City of Durango Tree and Shrub Guide
- Three Springs Sustainable Development Program

The Three Springs Design Guidelines (Guidelines) help to complement the rich ecological attributes of the Grandview setting and provide a framework for integrating the built environment and existing natural plant systems on the site. The purpose of the Guidelines is to reinforce a fundamental land ethic while guiding the development of all landscapes including private and public landscapes, streetscapes, plazas, parks, and open spaces.

The Guidelines address aesthetics and the long-term health of plant resources for the community and include the following elements:

- Identification of suggested plant species appropriate for the community
- Distribution and layout of plant types
- Installation and maintenance procedures
- Levels of responsibility for each jurisdiction.

The Guidelines define specific requirements for landscape planting and irrigation design for the following areas:

- Mixed-Use Urban Center
- Single Family and Multi-Family Residential
- Public Streetscapes and Alleyways
- Special Districts including Neighborhood and Community Parks and Schools
- Natural Open Space and Buffers

### *Guidelines*

a. All landscape within the City's Right of Way must follow the City of Durango Landscape Standards.

b. Use native or drought tolerant plants. Plant materials shall be representative of the southwest Colorado ecosystem and visual character of the surrounding natural landscape.

c. Development edges located adjacent to open spaces should establish a



*Existing rich ecological attributes of the Grandview setting.*

landscape transition that reflects the character of both open space and the formal development site.

d. Utilize plants to enhance the comfort of the Mixed-Use Urban Center, with shade trees along thoroughfares and trees to provide shelter in south- and west-facing open spaces.

e. Preserve existing trees and shrubs wherever possible.

f. Variation in supplemental plantings within semi-private/private spaces is encouraged as the individual expression of the landscape and domestic garden aesthetic.

g. Promote ecological sustainability, restore and reinforce natural biological systems on-site, promote water conservation practices, provide wildlife habitat, and help moderate microclimate by mitigating solar radiation and wind.

h. Plants selected for the Mixed-Use Urban Center shall be tolerant of the growing conditions typical of a highly pedestrianized, urban area. For more residential and rural fringe areas of the community, plant materials shall reflect native growing conditions and plant types and emphasize water conservation practices whenever possible.

i. Encourage a variety of appropriate landscape designs and combinations of plant species to distinguish neighborhoods, parks and open space, and create discrete, recognizable streetscapes throughout the neighborhood.

j. While indigenous trees, shrubs, groundcovers and herbaceous plants are preferred, open areas may be planted with a wider range of adapted evergreen and deciduous plants in informal, naturalistic combinations.

k. All public and private landscape plantings shall contribute to a coherent and harmonious visual character of the Three Springs Neighborhood.

l. Trees shall provide canopy closure for spatial definition, shade, and visual interest.

m. All street trees shall respond to the technical requirements of boulevard planting such as proximity to traveled portions of roads, underground utilities, and emergency access.

n. Plant materials shall be a focal point of visual interest and provide variation in foliage texture, seasonal color, and diversity of bloom.

o. Consider solar orientation, exposure, and drainage patterns when developing a landscape planting plan.

p. Width and depth of tree planting holes should be 2x and 1x root ball size respectively.

Minimum plant sizes are as follows:

Deciduous shade trees:	Min 2" caliper
Deciduous ornamental trees:	Min 1 1/2" caliper
Coniferous evergreen trees:	6' to 8' tall
Clump-from ornamental:	6' height
Shrubs:	5 Gallon Container
Groundcover:	4-inch pot
Ornamental Grasses/Perennial:	1 Gallon Container
Manicured Native Grass:	Seed
Turf:	Sod or Seed

#### *Standards: Trees*

a. Street trees shall be straight (except multi-trunk) and of uniform shape and meet specifications of the American Association of Nurserymen for Number 1 grade stock. All trees shall be balled and burlap or equivalent.

b. Tree caliper shall be measured six inches (6") above the root ball. Standard deciduous and smaller ornamental-street trees shall be of two inch (2") caliper minimum at the time of planting and achieve a minimum branch height of eight feet (8') above the sidewalk.

c. Evergreen trees planted on public land shall be a minimum height of six feet (6') excluding trees transplanted or relocated to the site. Evergreen trees are not allowed within the thoroughfare public right-of-way.

d. Trees planted in parks, open space and natural areas shall vary in mature height, size, and shape.

e. Fruit bearing trees shall not be permitted in the public thoroughfare right-of-way.

#### *Standards: Shrubs*

a. Shrubs shall be laid out in independent beds away from canopy trees and structures so as not to contribute to a wildfire fuel continuum.

b. Shrubs within ten feet (10') of the curb at corner intersections shall be a maximum of two feet (2') in height above the sidewalk.

c. Shrubs shall be planted along parking areas so that car overhang is accommodated and pedestrian impact is minimized.

*Standards: Groundcover*

a. Use of rock, crushed decomposed granite, wood chip, or other similar mulches or groundcovers should be limited to areas below shrub masses or in areas where no planting is possible. The use of shredded wood mulch is encouraged in all planting beds to help suppress weeds and conserve water.

b. Mulch shall be clean, disease-free, organic, and/or recycled content material (Aspen woodchip excluded) or compost material. Install four inches deep to conserve moisture, stabilize soil temperature, and control weeds. Top dressing shall be applied as necessary.

c. Turf shall be a drought resistant, low-growing, dense hardy and low maintenance sod or seed mix. Turf shall be mowed on a seasonally varied schedule to a maximum height of six inches (6") to promote water conservation, fire resistance and deep rooting. These areas can have a high rate of compaction and should be top-dressed with organic soil amendment as needed.

d. Groundcovers shall be planted as a preferred alternative to turf and to stabilize slopes and prevent erosion on high profile, strategic areas.

e. The use of large cobble mulch in planting beds is discouraged. Its use should be limited to particular areas or features such as dry streams.

f. The use of porous weed barrier fabric is acceptable under rock or gravel mulch, but is discouraged under fiber mulch, especially on sloped areas.

*Standards: Irrigation*

a. Incorporate irrigation systems that are water-efficient, that provide for the long term sustained health of plants, and that are durable and responsive to maintenance schedules, as necessary.

b. Irrigation system should use automatic timers linked to rain sensors.

c. Spray heads should avoid over-spray to non-pervious areas including sidewalks, buildings and roadways.

d. The use of spray should be avoided immediately adjacent to buildings.



*Groundcover is preferred to turf where applicable.*



*Plantings provide form, color, and texture.*



*Appropriate mulch and turf combination.*

e. Water Management Prerequisites of the Three Springs Sustainable Development Program shall be applied with regard to water conservation measures.

f. New plants shall be irrigated as necessary to mitigate transplant shock. Significant trees shall be deep watered when subject to severe moisture deficiency.

g. Irrigation shall be reduced as plants become established and are able to thrive on normal precipitation. Established native or drought-tolerant plants shall be irrigated only during drought and/or as needed.

h. High profile lawns, greens, and sports fields shall be irrigated by a permanent automatically controlled in-ground pop-up or long arc spray head system as required.

i. Design target landscape irrigation for a maximum of fifteen (15) gallons/square foot per year when fully established in addition to natural precipitation.

j. Direct rainwater toward landscape areas where practical. Landscapes receiving redirected water must be at least five feet from the building foundation.

k. Minimize water consumptive turf areas and promote water conserving landscape principles. Limit the installation of turfgrass in areas less than eight feet (8') wide and slopes greater than 4:1 (25%).

l. Each single-family property should be equipped with an automatic irrigation system designed to match irrigation application rates with each plant's watering needs.

## 2.0 THOROUGHFARE FRONTAGE (PUBLIC LANDSCAPE AREA)

### *Principles*

Thoroughfare rights-of-way are considered City public rights-of-way and include the thoroughfare and curb area, curb-cut driveways, landscape planter areas and sidewalks. The landscape planter and sidewalk area are maintained by the adjacent property owner or the Metropolitan District as determined. The City of Durango Parks and Recreation Department shall maintain street trees located within the landscape planter areas.

### *Guidelines*

a. In addition to the street trees, the landscape design for planter areas - located back of curb to the sidewalk - should provide interest and be well-maintained.

b. A variety of native or drought tolerant plant materials may be acceptable for the thoroughfare planter area.

c. A mix of low shrub, groundcovers, and/or grasses may be considered to help frame the streetscape and adjacent dwellings.

d. A formal turf area may be considered, but in general an informal and creative landscape design is encouraged for the planter area.

### *Standards*

a. Sidewalks to be a minimum five feet (5') wide.

b. Landscape strips to be eight feet (8') wide.

c. Tree planting to be a minimum of thirty-five feet (35') on center and a maximum forty feet (40') on center.

d. Ornamental trees to be a maximum of thirty feet (30') on center.

e. Irrigate tree lawns using a drip, bubbler or sub-surface drip irrigation system on the trees. Spray irrigation may be allowed for the remainder of the tree lawn area as necessary.

f. Soil moisture or rain sensor devices are required.

## 3.0 ALLEY LANDSCAPE

### *Standards*

a. Define the back alley and break up the continuous fence line appearance. Plant the three foot (3') landscape strip (located between the property fence and the alley right-of-way) with low shrubs, tall ornamental grasses or groundcovers to ensure one hundred percent (100%) coverage of this area.

b. Irrigate the plant strip with traditional drip for shrubs and with sub-surface drip for groundcovers.

c. Use of native and drought tolerant plantings in the alley is required.



d. The mature size of shrubs in the alley planter area may not exceed five feet (5') in height and four feet (4') in width. Locate shrubs in the center of the three feet (3') utility easement.

e. Accommodate transformer and pedestals with the three foot easement (and as needed) with encroachments onto private yards. Building and fences must be placed with adequate clear distance of utility structures.

f. Plant shrubs at the base of the utility structure to camouflage their appearance.

## 4.0 RESIDENTIAL LANDSCAPING

### *Guidelines*

a. The site plan and landscape design of multi-family projects should provide for a variety of planting types, complement the overall landscape character of each neighborhood and define entries, edges, and views to the building architecture and front porch area. The landscape should provide for design flexibility while reinforcing the overall streetscape patterning, encouraging neighborhood sociability while accommodating semi-private or private outdoor (whenever feasible) spaces as defined by the TND and Three Springs Neighborhood design principles.

b. The single-family landscape refers to the open areas on private properties for all single-family uses and is defined as three social realms used to organize space: public, semi-public and private. The landscape of the single family dwelling should provide for a variety of planting types, complement the overall landscape character of each neighborhood and define entries, edges and views to the building architecture and front porch area. The landscape should provide for design flexibility while reinforcing the overall streetscape patterning, encouraging neighborhood sociability and accommodating private outdoor spaces as well.

### *Guidelines: Private Landscaping*

a. Significant trees and large shrubs on private property shall be selected, laid out and coordinated with plantings on adjacent public lands, open spaces and green courts to create a consistent visual character to the community landscape.

b. Variation in supplementary plantings within the private yard is encouraged as the individual expression of the private landscape and domestic garden aesthetic.

d. Side yards along a thoroughfare should contain a blend of shrubs, perennials, and ornamental grasses.



*Well designed alley*



*Planted utility easements-refer to fence standards for setbacks*

## *Standards: Private Landscaping*

- a. At least one tree per lot for each thirty-five feet (35') of street, public park or open space frontage shall be provided.
- b. Shrubs, groundcovers, and/or perennials shall define the front yard edges and entryway.
- c. Semi-private side yard and courtyard landscapes shall be maintained in good condition at all times.
- d. Plant materials that are inappropriate or are dying shall be replaced immediately.
- e. Formal lawns may be acceptable as a front yard design but shall not dominate the landscape. A variety of lawn grasses may be acceptable while minimizing an emphasis on traditional water consumptive turf species as a primary choice.
- f. The use of plant materials that provide for color, texture, and a grouping pattern of native, ornamental grasses, shrubs, wildflower perennials, hedges, walls, and fences is encouraged.
- g. Plants shall be selected and located to allow them to achieve mature size without encroaching on walks or roads, or covering windows.
- h. Shade trees, ornamental trees and shrubs shall be used to frame buildings, provide a sense of enclosure and help relate building to lots and individual lots to one another. High canopy trees shall frame front and rear building elevations. Use of native or drought tolerant plant materials shall be used as a Front Yard palette.
- i. Walkways shall be four feet (4') - six feet (6') wide.
- j. In doorways and courtyards, decorative paving, ground covers, vines, perennials and small ornamental trees shall provide visual interest.
- k. Side yard and rear yard landscape design shall consider solar access for both the property and adjacent properties as necessary.
- l. For rear yards, whenever feasible, at least one (1) tree is required per unit to be located a minimum of six feet (6') from rear of property line or garage structure.

- m. Rear yard plantings shall be selected and laid out to accommodate private landscapes and gardens, and to create native landscaping for wildlife habitat.

## **5.0 SOILS PRESERVATION**

Existing native soil shall be returned to planting pits and beds to initiate newly installed plants and accelerate their ability to sustain vigorous growth in prevailing growing conditions. This especially applies to intermediate soils such as sandy loam clay. Organic compost or coarse peat moss shall be used to amend heavy native clay soils or sandy soils removed from planting pits prior to backfilling.

## **6.0 SOIL COMPACTION**

### *Standards*

- a. All soils shall be protected from deep compaction during building construction. Tree protection barriers shall protect valuable existing trees and sites to remain undisturbed. Building settings shall be adjusted to save existing trees wherever possible.
- b. Planting areas with destroyed or compacted soil structure shall be amended. Refer to 9.0.
- c. Soil tests shall be performed with soil structure and nutrient content amended according to test results and recommendations.
- d. Hard pan soil horizons shall be broken up to allow drainage.
- e. Compacted planting strips shall be tilled to a depth of twelve inches (12").
- f. Hard pan edges shall be scarified and backfilled with amended soils.
- g. Planting pit walls shall be scarified to facilitate root penetration.

## **7.0 PLANTING SCHEDULE**

The preferred time for planting is early spring after the ground has thawed. Mid-summer and fall may be acceptable depending on conditions. Do not plant during periods of extended drought.

## 8.0 EXISTING TREE PRESERVATION

### *Standards*

- a. At the discretion of the project Landscape Architect and/or as noted in the project specifications and construction documents, tree protection barriers shall be installed and positioned at the natural drip line of the tree crown. This will be the minimum allowed protected area as tree roots can extend from trunks a distance of two (2) to three (3) times the drip line diameter.
- b. All support and bracing shall be outside the root ball zone to minimize damage to roots.
- c. Where excavated material must be temporarily stored near a tree protection barrier, plywood shall be used to ensure no material enters the tree protection zone.

## 9.0 CULTIVATION/FERTILIZATION

### *Guidelines*

- a. Trees should be fertilized following the first growing season and every three (3) to five (5) years thereafter with a long-term organic fertilizer with less than ten percent (10%) urea nitrogen and full nutrient content as determined by soil testing.
- b. Planting beds should be fertilized annually with an application of slow release fertilizer with a well-balanced nutrient content. Organic fertilizers are recommended where appropriate.
- c. Planting should be mulched to help conserve soil moisture.

### *Standards*

- a. Private lawns to receive turf shall be amended with at least four (4)cubic yards of soil amendment (coarse organic material) per one thousand square feet (1000 sf) of installed landscape area, based on soil analysis. Amendment must be tilled four inches (4") to six inches (6") below the surface prior to installation of any further topsoil, seed, or sod.

## 10.0 FENCING AND PROTECTION FROM WILDLIFE BROWSING

### *Standards*

- a. Protective fencing shall be installed as needed but generally during winter

months around new and established significant specimen plants. Fencing shall be a minimum height of six feet (6') and offset two feet (2') from foliage.

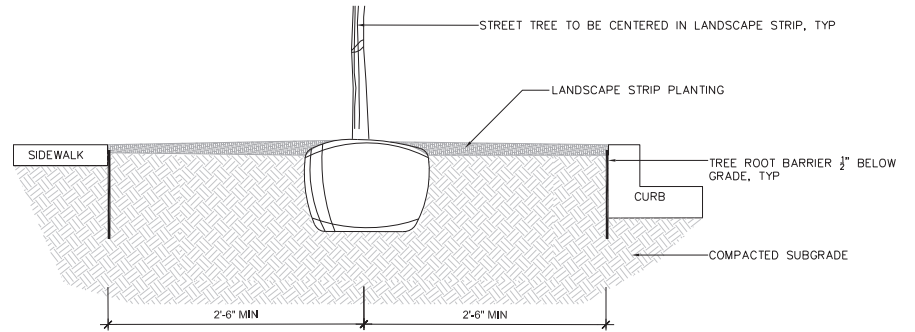
- b. Once protective fencing has been installed, snow deposition near fences shall be monitored as necessary. As appropriate, City Arborist shall determine the schedule for the removal of fencing in public right-of-way and public parks.
- c. Fencing shall be prohibited in public park areas except in the following cases: to protect plantings as necessary; to enclose softball or baseball fields; to enclose other specified areas, such as toddler play areas, as required by law; around storage and maintenance facilities for health and safety purposes.

## 11.0 INNOVATION

### *Guidelines*

- a. Initiate new and flexible landscape design solutions that reflect an innovative approach to landscape design and management traditions in Durango and the Four Corners Region.
- b. Establish a new landscape standard that will differentiate Three Springs from other neighborhoods in the region.
- c. Create a water conservation landscape where expenditures and ongoing maintenance are not significantly higher than conventional landscape designs.

# THREE SPRINGS - DURANGO, COLORADO



**TREE ROOT BARRIER DETAIL**  
 INSTALL 20' OF TREE ROOT BARRIER ON THE SIDEWALK AND CURB SIDE OF ALL TREES IN TREE LAWN, CENTER ON TREE. TREE ROOT BARRIER (18" DEEP) SHALL BE PRODUCT #UB 18-2 AS MANUFACTURED BY DEEP ROOT PARTNERS (800.458.7668) OR APPROVED EQUAL.

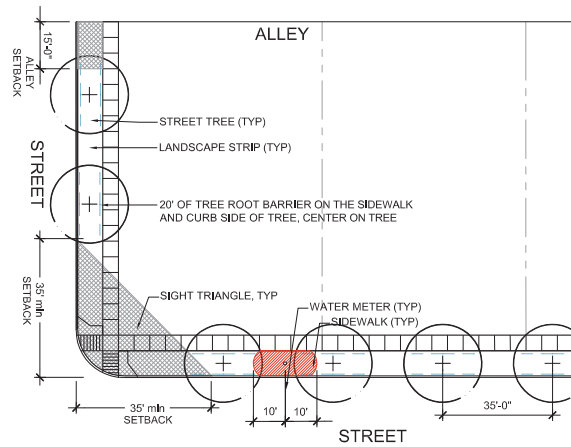
### SIGNATURE BLOCK

APPROVED BY:

CATHY METZ  
 DIRECTOR OF PARKS AND RECREATION

JACK ROGERS  
 DIRECTOR OF PUBLIC WORKS

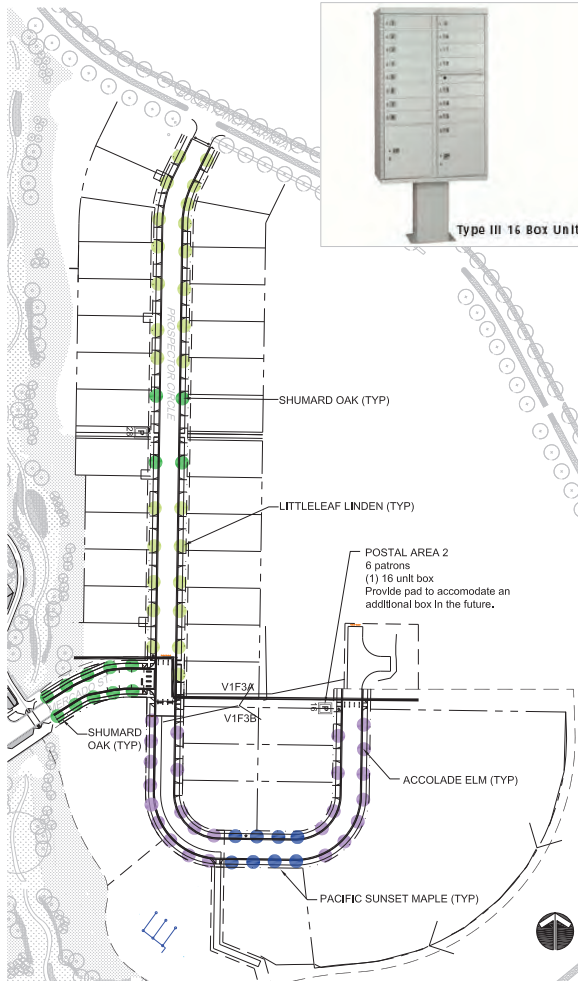
RON STONER  
 CITY ARBORIST



- NOTES:**
- STREET TREE SPACING TO BE MINIMUM 35' O.C., 40' O.C. PER CITY OF DURANGO GUIDELINES. ACTUAL QUANTITIES OF TREES MAY VARY DUE TO AS BUILT CONDITION.
  - CENTER OF TREE TO BE A MINIMUM 2 1/2' FROM FACE OF CURB.
  - TREE GRATES IN SIDEWALKS TO BE 4'x8' CAST IRON, REFER TO FINAL INDIVIDUAL LOT SITE PLANS.
  - TREES IN RIGHT-OF-WAY TO BE A MINIMUM OF 2" CALIPER.
  - REFER TO THE CITY OF DURANGO; TREE & SHRUB GUIDE (CURRENT VERSION) FOR ALL TREES IN THE CITY RIGHT OF WAY.
  - ALTERNATIVES COULD BE ACCEPTED IF APPROPRIATE, APPROVED BY THREE SPRINGS, AND ALLOWED BY THE CITY OF DURANGO.

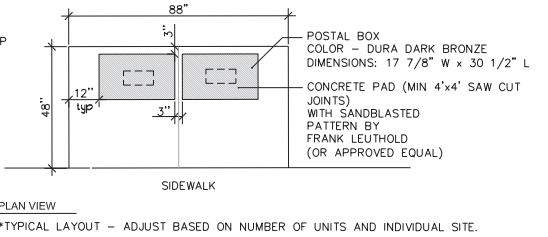
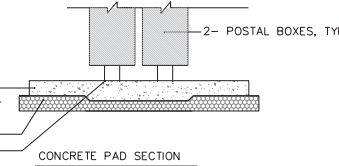
### LEGEND

- PROPOSED STREET TREES:**
- WHITE OAK (QUERCUS ALBA)
  - NORTHERN RED OAK (QUERCUS RUBRA)
  - SHUMARD OAK (QUERCUS SHUMARDII)
  - SHADEMASTER HONEYLOCUST (GLEDITSIA TRIACANTHOS INERMIS)
  - WESTERN HACKBERRY (CELTIS OCCIDENTALIS)
  - GREEN MOUNTAIN SUGAR MAPLE (ACER SACCHARUM 'GREEN MOUNTAIN')
  - LITTLE LEAF LINDEN (TILIA CORDATA)
  - SILVER MAPLE (ACER SACCHARINUM)
  - PACIFIC SUNSET MAPLE (ACER PLATANOIDES 'WARRENRED')
  - ACCOLADE ELM (ULMUS (JAPONICA X WILSONIANA) 'MORTON')
- EXISTING TREES (AS OF AUGUST 15, 2011):**
- ✕ EXISTING STREET TREE
  - AUTUMN BLAZE MAPLE (ACER X FREEMANII) - DECLARED UNSUITABLE IN CITY ROW
  - AUTUMN PURPLE ASH (FRAXINUS SPP.) - DECLARED UNSUITABLE IN CITY ROW



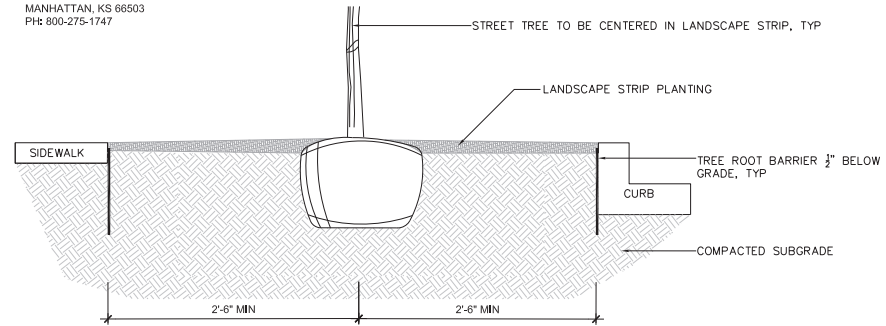
NOTES:  
 1. COLOR TO BE DURA DARK BRONZE  
 2. MAILBOX CLUSTER WILL COME WITH A BOLT TEMPLATE. CONTRACTOR TO PROVIDE BOLTS.  
 3. CLUSTER BOXES <3' OR >9'.

6" DEPTH OF 3000 PSI CONCRETE, THICKEN TO 8" DEPTH UNDER POSTAL BOXES IN BOLT AREA, 18" x 42"  
 MIN 4" DEPTH OF CLASS 6 BASE  
 SURFACE MOUNT PER MANUFACTURER'S RECOMMENDATIONS

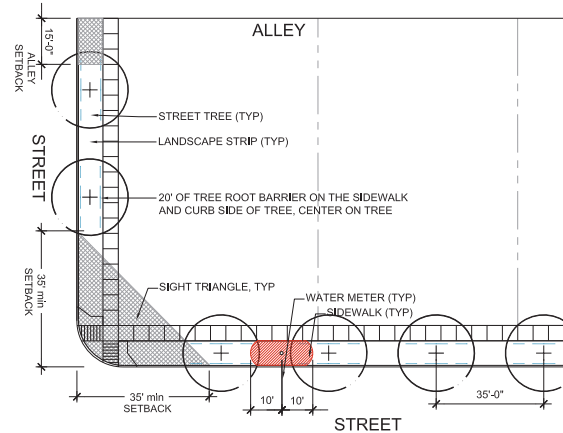


POSTAL BOXES  
 SUPPLIED BY FLORENCE MANUFACTURING COMPANY  
 5935 CORPORATE DRIVE  
 MANHATTAN, KS 66503  
 PH: 800-275-1747

N.T.S.



TREE ROOT BARRIER DETAIL  
 INSTALL 20" OF TREE ROOT BARRIER ON THE SIDEWALK AND CURB SIDE OF ALL TREES IN TREE LAWN, CENTER ON TREE. TREE ROOT BARRIER (18" DEEP) SHALL BE PRODUCT #UB 18-2 AS MANUFACTURED BY DEEP ROOT PARTNERS (800.458.7668) OR APPROVED EQUAL.



STREET TREE PLANTING AT WATER METER  
 SCALE: 1"=20'

### LEGEND

#### PROPOSED STREET TREES:

- SHUMARD OAK (QUERCUS SHUMARDII)
- LITTLE LEAF LINDEN (TILIA CORDATA)
- PACIFIC SUNSET MAPLE (ACER PLATANOIDES 'WARRENRED')
- ACCOLADE ELM (ULMUS (JAPONICA X WILSONIANA) 'MORTON')

- NOTES:
1. STREET TREE SPACING TO BE MINIMUM 35' O.C. - 40' O.C. PER CITY OF DURANGO GUIDELINES. ACTUAL QUANTITIES OF TREES MAY VARY DUE TO AS BUILT CONDITION.
  2. CENTER OF TREE TO BE CENTERED IN LANDSCAPE STRIP, A MINIMUM 2 1/2' FROM FACE OF CURB.
  3. TREE GRATES IN SIDEWALKS TO BE 4'x8' CAST IRON. REFER TO FINAL INDIVIDUAL LOT SITE PLANS.
  4. TREES IN RIGHT-OF-WAY TO BE A MINIMUM OF 2" CALIPER.
  5. REFER TO THE CITY OF DURANGO; TREE & SHRUB GUIDE (CURRENT VERSION) FOR ALL TREES IN THE CITY RIGHT OF WAY.
  6. ALTERNATIVES COULD BE ACCEPTED IF APPROPRIATE, APPROVED BY THREE SPRINGS, AND ALLOWED BY THE CITY OF DURANGO.

