



TREE PROTECTION AND EROSION/SEDIMENTATION CONTROLS

Protecting and preserving our trees and preventing sediment and erosion from polluting our creeks, streams and roads are vital to Austin's quality of life and environmental health. To maintain these vital assets in our community, the City of Austin Development Services Department (DSD) requires developers to adhere to the following City codes relating to tree and watershed protections:

- **Land Development Code, 25.8.B:** Requirements for proposed impacts and/or removals of protected trees
- **Land Development Code, 25.8.181:** Temporary erosion and sedimentation controls (1) are required for all development until permanent revegetation has been established; and (2) must be removed after permanent revegetation has been established
- **Environmental Criteria Manual, 3.5.2:** Standards for the critical root zone and crown preservation
- **Environmental Criteria Manual, 1.4.2:** Policy governing sedimentation controls

SEQUENCE OF CONSTRUCTION

As part of these City codes, a precise process to ensure the health of Austin's trees and watersheds is required and outlined here.

Unless otherwise noted, inspections can be scheduled through your Austin Build + Connect (AB+C) account - My Inspections or call the IVR System 512-974-9405. You will need your PIN, permit number, and inspection code.

1. Pre-Construction Erosion and Sedimentation Control Inspection

Schedule your Pre-Construction Erosion and Sedimentation Control Inspection by contacting Environmental Inspections Administration at 512-978-4687 or environmental.inspections@austintexas.gov

Install erosion and sedimentation controls (ESC) before any work takes place on your work site. A few of these controls are detailed in the "Controls: Environmental Protection" section on page 3.

2. Pre-Construction Tree & Building Layout Inspections

Schedule 101 Building Layout Inspection This action automatically schedules a pre-construction tree inspection to verify:

- Tree protection fencing and mulching are in place (See "Controls: Tree Protection" section on page 4)
- Building layout staked and stringlined
- Form boards are in place (if applicable to your project)

Addition and remodel projects must schedule a 101 Building Layout Inspection in order to automatically schedule the Pre-Construction Tree Inspection.

For work that does not require framing (i.e. pools, some interior work), the Interim Tree Inspection is pre-scheduled at this time.

3. 100 Building Pre-Construction Inspection (if applicable to your project)

4. 101 Building Layout and 500 Plumbing Rough Inspections (if applicable to your project)

- Work access, material staging, and critical root zone protection discussed

5. 621 Pre-Pour Tree Inspection

Pre-Pour Tree Inspection is due after excavation but before reinforcing steel and poly plastic in place.

Schedule 621 Pre-Pour Tree Inspection to verify:

- Tree protections in place and maintained
- Perimeter grade beam and excavation complete
- Batter boards and form boards in place (if applicable to your project)
- Rough plumbing trench in place (if applicable to your project)

6. 501 Pre-Pour Plumbing Inspection



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7. 102 Foundation Inspection (third-party inspection required)

8. Interim Tree & Framing Inspections

Schedule 103 Framing Inspection This action automatically schedules the Interim Tree Inspection to verify:

- Full tree protection fencing and mulching in place (See "Controls: Tree Protection" section)
- No root impacts have occurred
- No canopy impacts have occurred

For work that does not require framing (i.e. pools, some interior work), the 103 Framing Inspection is not applicable.

9. 103 Framing Inspection

10. Various Other Building Inspections

(For example 104 Insulation Inspection, 105 Wallboard Inspection, 106 Fire Resistance-Rated Construction Inspection, etc.)

11. 620 Final Tree Inspection

Complete the following before scheduling 620 Final Tree Inspection:

- Submit Arborist receipts to your Tree Inspector
- Complete mitigation tree plantings
- Complete first treatment of Tree Care Plan
- All heavy equipment, material staging, and hardscaping removed from site and finish grading completed
- Tree protections still in place
- Re-inspection fees paid (if applicable to your project)

12. 109 Temporary Certificate of Occupancy (TCO)

Contact the following inspectors to discuss any further requirements needed before obtaining a TCO:

- Building Inspector
- Tree Inspector
- Environmental Inspector

13. 602 Environmental Inspection

Schedule 602 Environmental Inspection by contacting Environmental Inspections Administration at 512-974-2278 or environmental.inspections@austintexas.gov

This one-time 602 Environmental Inspection must be passed before the 112 Final Building Inspection can proceed. In order to pass the 602 Environmental Inspection, the following must be completed:

- Site and surrounding areas free of sediment
- All trash and construction debris contained
- Re-inspection fees paid (if applicable)

14. 112 Final Building Inspection

DAILY COMPLIANCE LIST

To stay in compliance with City codes to protect our community's trees and watershed and to avoid your project being delayed, follow this daily maintenance list:

- ☐ Applicable City permits, State notices, and Storm Water Pollution Prevention Plan information posted
- ☐ Erosion and Sediment Controls (ESC) installed and maintained
- ☐ Tree protection for trees of 19" diameter or greater (Critical Root Zone-protected) in place (more details in "Controls: Tree Protection" section)
- ☐ Construction access to prevent tracking offsite stabilized
- ☐ Concrete washout area (with lining) in place
- ☐ Material stockpiles and port-o-potty stored outside of drainage pathways, right of way, tree protection and not encroaching on ESCs
- ☐ Streets swept of construction debris deposits in right of way
- ☐ Oil, hazardous material, and other liquids labeled, covered, and secondary containment provided
- ☐ City Inspector contacted before dewatering activities (dewatering plan may be required)
- ☐ Access and construction activities stay within permitted plan set and property boundaries
- ☐ Dust controls installed, as necessary
- ☐ Trash and construction debris contained on-site in dumpsters and trash cans
- ☐ Work in floodplain, drainage easements, or setbacks completely avoided



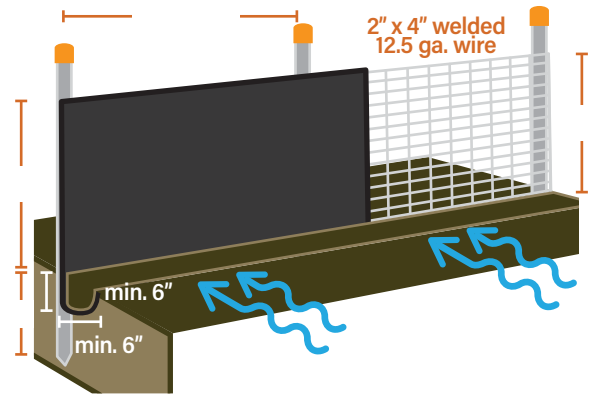
TREE PROTECTION AND EROSION/SEDIMENT CONTROLS

CONTROLS: ENVIRONMENTAL PROTECTION

Install Erosion and Sedimentation Controls (ESC) before any work takes place on your work site.

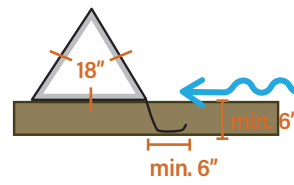
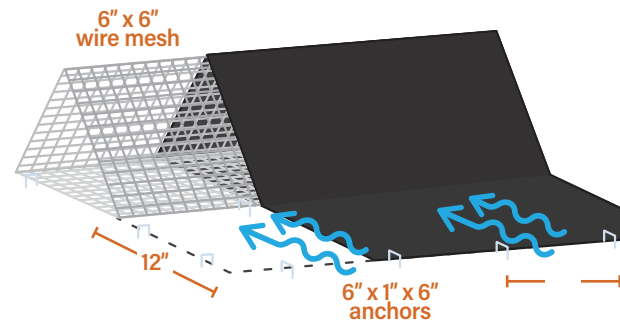
Silt Fence: A non-woven fabric filter material supported by welded wire fabric (WWF, 2"x 4", 12.5 gauge wire) anchored by 4 ft. (48") steel or wood posts.

- Silt fence must be at least 24" high with fabric facing towards the anticipated flow
- Posts must be embedded at least 12" in the ground and no more than 8 ft. (96") apart
- Bottom 12" flap of filter fabric should be trenched 6" in the ground
- When installed on impervious cover, the bottom flap should be extended upstream
- Vertical joints should overlap at least 12"
- The end of the silt fence should turn back in a 'hook'
- Long sections of silt fence should incorporate J-hooks as needed to capture sediment uphill, especially on slopes

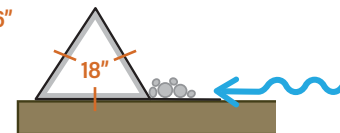


Triangular Sediment Filter Dike: Typically easier and faster to install than other ESCs, a Triangular Filter Dike (or Tri-Dike) is prefabricated from 6x6-D2.9xD2.9 welded wire mesh and 4.5 oz. non-woven polyester filter fabric fastened to welded wire mesh. It has a 12" skirt that is a continuous extension of the filter fabric on the upstream face.

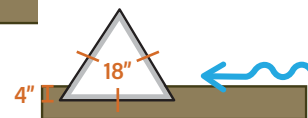
- Dikes are placed in a row with ends tightly abutting the adjacent dike
- Each filter dike and skirt are anchored in place using 6" staples, 24" apart maximum
- The skirt may be trenched in:
 - with 6" minimum (see Fabric Toe-In illustration)
 - weighted down with a continuous layer of 3-5" open graded rock or with sand/gravel bags placed 18" on center (see Open Graded Rock illustration)
 - the entire structure can also be trenched in 4" (see Trenched in 4" illustration)



Fabric Toe-In



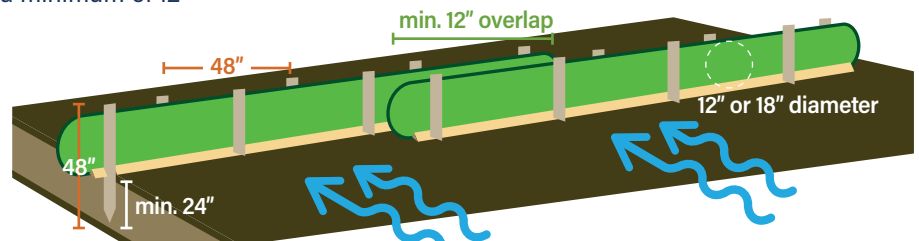
Open Graded Rock



Trenched In 4"

Mulch Socks: A mulch sock consists of material encased in a 12" or 18" diameter tube of mesh and provides an environmentally-sensitive alternative to silt fencing.

- Mulch material may consist of shredded bark, stump grindings and/or composted bark and should be produced from a 3" minus screening process. Do NOT use HAY/STRAW!
- Ends of adjacent socks should overlap a minimum of 12"
- Install using steel or wood posts (48" minimum) placed on 4 ft. (48") centers driven at least 24" into the ground on alternating sides of the sock
- Mulch socks should not be used on slopes greater than 2:1 or in concentrated flow area





TREE PROTECTION AND EROSION/SEDIMENT CONTROLS

CONTROLS: TREE PROTECTION

Protecting a tree's Critical Root Zone (CRZ) is crucial for tree survival during construction or demolition. All trees measuring 19" or greater in diameter (60" in circumference) are classified as protected and require a permit before construction or demolition. These CRZ protections also apply to any trees extending onto a property from neighboring properties.

Tree Measuring Tips

Measure the trunk at 4.5 ft. above the ground to find the tree's diameter.

- **Missshapen or Swollen Trunk:** if the bend or swell is on the trunk at 4.5 ft. from the ground, measure just below the distortion
- **Multi-Trunk:** add the total diameter of the largest trunk to half the diameter of each additional trunk

CRZ Calculating Guidelines

Each inch of the tree's diameter = 1-foot radius of the full CRZ.

- Example: 20" diameter = 20 ft. radius, place fencing 20 ft. from all points of the tree

Full CRZ Protection

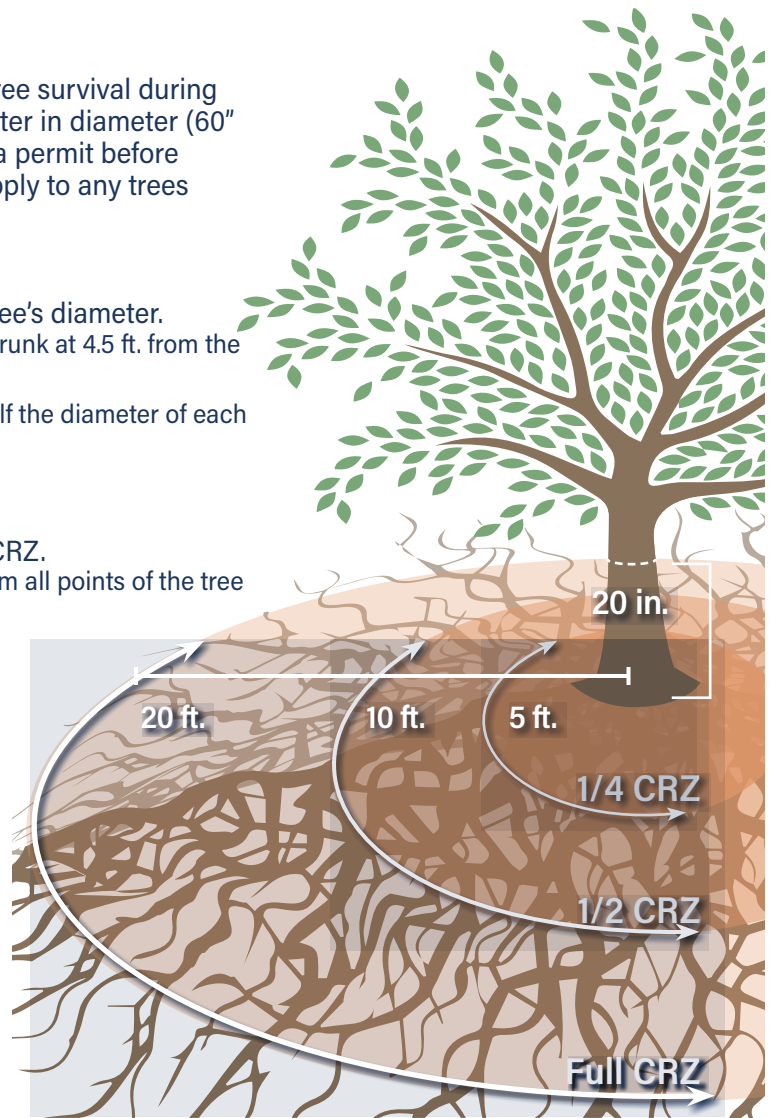
- Apply 8" of hardwood mulch within the entire Full CRZ
- Place 5 ft. tall chain-link fencing around the entire Full CRZ

1/2 CRZ Protection

- Apply 8" of hardwood mulch within the entire Full CRZ
- Fence as much of the Full CRZ as possible
- If fencing cannot be put around the Full CRZ, fencing can be pulled back but cannot cross into the 1/2 CRZ

1/4 CRZ Protection

- Apply 8" of hardwood mulch within the entire Full CRZ
- NO IMPACTS are allowed in the 1/4 CRZ
- Vertically strap 2"x4"x6' or greater size lumber around the tree itself in areas where fencing is not an option
- Confirm with your inspector before installing protective planks in lieu of fencing



NOTES: If the site requires an access route crossing the CRZ of a protected tree, contact your Tree Inspector to discuss alternative root protection measures.

Chemical toilet, concrete washout, dumpster, equipment placement, material staging, erosion and sediment controls are NOT allowed within the 1/2 CRZ of a Protected tree.