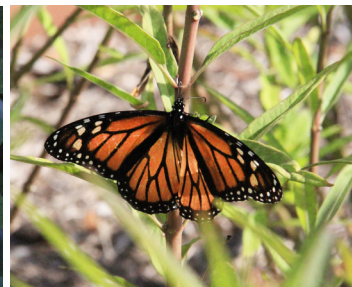


2016 CAMPUS TREE CARE REPORT



SUSTAINING A HEALTHY AND VIBRANT CAMPUS COMMUNITY FOREST



"THE TREE WHICH MOVES
SOME TO TEARS OF
JOY IS IN THE EYES OF
OTHERS ONLY A GREEN
THING THAT STANDS
IN THE WAY. SOME SEE
NATURE ALL RIDICULE
AND DEFORMITY... AND
SOME SCARCE SEE
NATURE AT ALL. BUT TO
THE EYES OF THE MAN OF
IMAGINATION, NATURE IS
IMAGINATION ITSELF."

~WILLIAM BLAKE

CAMPUS TREE CARE REPORT

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THE UNIVERSITY OF TEXAS RIO GRANDE VALLEY CAMPUS TREE CARE REPORT 2016

- 4 INTRODUCTION
- 5 STANDARD 1
CAMPUS TREE ADVISORY COMMITTEE
- 7 STANDARD 2
RESPONSIBLE DEPARTMENT
CAMPUS ARBOREAL PRACTICES
- 31 STANDARD 3
CAMPUS TREE PROGRAM
ANNUAL EXPENDITURES
- 33 STANDARD 4
ARBOR DAY OBSERVANCE
- 37 STANDARD 5
SERVICE LEARNING PROJECTS

THE UNIVERSITY OF TEXAS RIO GRANDE VALLEY AIMS TO HAVE A WELL MAINTAINED CAMPUS COMMUNITY FOREST.

The benefits the forest will provide are countless. Large trees give us a sense of place and belonging by ensuring landmarks for the future, and add aesthetic beauty to the campus by softening the linearity of its structures. Throughout the campus, trees surround parking lots and sidewalks provide relief from the hot Texas sun, while adequate canopy cover on campus provides shade and pollution-removal capabilities. Clean air, low temperatures, and comfortable areas make recreational opportunities, such as socialization and improving health, possible and enjoyable. The University enjoys reduced energy costs due to the shade provided by the tree canopy, and local businesses experience increased property value and business traffic due to their beauty. Trees also serve as strategic barriers to reduce noise, glare, and odors at key places around the region.

In addition to making our lives more comfortable, trees are vital for the environment. The abundant tree canopy provides support to reduce storm water runoff and soil erosion

and to provide adequate cover and nutrients to sustain a diverse wildlife population. No one species of tree comprises more than ten percent of the population, and trees planted are native adaptive species appropriate for the region.

Well-maintained trees reduce hazards and low-maintenance trees help in reducing operating costs. Selected trees are wind resistant, strong-wooded, aesthetically pleasing, and provide beautiful seasonal flowers and food. The trees that make up the forest are a good mixture of small, medium, and large trees optimized for the available space. The University of Texas Rio Grande Valley (UTRGV) maintains adequate tree canopy cover by planting trees, assisting with developing tree ordinances and tree-related policies. Students, staff, and faculty, along with city foresters, help reduce labor costs while volunteering to inventory, plant, and maintain trees. The Office for Sustainability also provides training and development workshops to further educational efforts related to urban forestry.

UTRGV understands the importance of having healthy trees in the city and throughout campus. The University owns and maintains a healthy urban forest of over 2,000 trees on its Edinburg campus, with the value estimated to be over \$5,735,000 (CTCR, 2014). The University maintains strong partnerships with the cities surrounding our campuses in maintaining natural transitions between campus and community. The University contributes to sustainable development goals by providing tree maintenance training, providing necessary funding to ensure the sustainability of the community forest, contracting arboricultural services to International Society of Arboriculture (ISA) certified arborists with appropriate experience, and encouraging cooperation and coordination among municipal departments where trees are involved.

STANDARD 1

CAMPUS TREE ADVISORY COMMITTEE

The UTRGV Campus Tree Advisory Committee (CTAC) is comprised of faculty, staff, students, and both local and state foresters. The committee was founded October 21, 2013 and meets quarterly to provide important input for tree care and campus landscape improvement. The committee is tasked with providing guidance for future planning, approving the campus master tree plan, educating the campus and community on the value of trees, providing recommendations concerning tree removal and planting, and establishing goals for increasing the number of trees on campus.



COMMITTEE MEMBERS

DR. ALEXIS RACELIS



Racelis is an assistant professor in the School of Multidisciplinary Sciences at UTRGV where he continues a research and student training program in urban and agroecology with the ultimate goals of integrating findings into local food and urban policies while arming local students with techniques and skills in ecological research to best make positive impacts on their own communities.

DR. CHRISTOPHER GABLER



Gabler, assistant professor, joined the School of Earth, Environmental, and Marine Sciences at UTRGV in 2016 and holds a joint appointment in the Department of Biology. He earned his Ph.D. in Ecology and Evolutionary Biology from Rice University in 2012. He worked as a postdoctoral researcher at the University of Houston and with the U.S. Geological Survey before moving to Brownsville to start his Plant Ecology and Sustainability Laboratory.

MARIANELLA FRANKLIN



Franklin, Chief Sustainability Officer, founded the Office for Sustainability in 2009. UTRGV Tree Campus USA has achieved consecutive designation, and a Silver rating from the Association for the Advancement of Sustainability in Higher Education (AASHE), Under Franklin's leadership, UTRGV is engaging and uniting every corner of the university to create an environment in which all members of the campus community are generating knowledge, acquiring skills, developing values, and initiating sustainable practices in their personal and professional lives.

CARLOS NUÑEZ



Nunez earned his B.S. in Environmental Science from The University of Texas Rio Grande Valley. He was invited by Brian Atwater, affiliated professor at the University of Washington, to join a research team in Anegada to find evidence of high energy wave deposits. He currently works in the Office for Sustainability and works for the School of Earth, Environmental, and Marine Sciences as a Physical Geology Lab Instructor. Nunez plans to begin his graduate degree in GeoScience beginning Fall 2017.

CAMPUS TREE ADVISORY COMMITTEE

OSCAR VILLARREAL



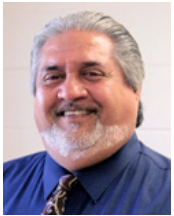
Villarreal is a Director for the University's Campus Facilities Operations on the Edinburg campus. He manages 62 facilities on a total of 320 acres of land. Villarreal has a degree in Social Behavioral Science and received his certification as an Educational Facilities Professional (EFP) in 2008 from the APPA Institute (Leadership in Educational Facilities). In 2011, he also attained his certification as Public Manager (CPM) from Texas State University. He has been with the UT system for over 24 years.

EDWARD KUPREL



As Edinburg's City Forester, Kuprel is dedicated to managing and growing the urban forest culture and establishing a network of citizens to create a self-sustaining Urban Forest Ecosystem in the RGV. He is a Certified Arborist with the International Society of Arboriculture, Texas Chapter. He received his BS in Forestry from Michigan State University, East Lansing, Michigan and his AAS in Forest Technology from Michigan Technological University, Houghton, Michigan.

ABRAHAM HERNANDEZ



Hernandez is a Director for Campus Facilities Operations on the Brownsville campus. His responsibilities include oversight of building maintenance, grounds maintenance, and custodial services. Hernandez earned a Bachelor of Applied Technology from the University of Texas at Brownsville and is close to completing his course work for an MBA. He is an APPA : Leadership in Educational Facilities, a Certified Public Manager and has been an apprenticeship instructor. He has been with the UT System for over 20 years.

ROY REYES



Reyes is the City forester working for the City of Brownsville. He helps hosts workshops to promote and educate the public on the importance of planting. Under his guidance, the city of Brownsville has been awarded through Tree City USA thirteen times.

CARLOS CHAVEZ



Chavez has been with UTRGV since July 2016 as the Assistant Director for Facilities Programs & Services and UTRGV Tree Care Coordinator. He earned his Bachelor in International Business Management in the fall of 1998 from the University of Texas Pan-American. He served as the President for Forum for International Relations and Business Affairs (FIRBA) in spring 1998. He has over 27 years of management experience in the service sector.

ERICK N. PALACIOS



Palacios is currently part of the emergency response team assembled to combat and contain citrus canker disease recently diagnosed in Rancho Viejo Cameron County. In addition to his commitment to the agricultural department, he manages a team of certified professional arborist at that perform surgery to valley trees helping beautify the valley one tree at a time. They also provide training seminars and conferences to the public and private sectors and are involved in numerous non-profit and volunteer assignments.

CLIFFORD HAWKINS



Hawkins the Urban Forester and Certified Arborist for the City of McAllen. He graduated from Southern University A & M with a BS in Urban Forestry with a minor in Agriculture Economics. While in college, he received a paid internship with the U.S Forest Service, where he applied best management practices toward water management, silviculture, fire suppression, timber management, tree biology and plant pathology.

BILL GREEN



Green has been with the Texas A&M Forest Service since April 2016 as the Regional Urban Forester for South Texas-RGV-Coastal Bend. He earned his B.S. degree in Forestry from State University of New York College of Environmental Science and Forestry, Syracuse, New York, and his M.S. degree in Plant & Soil Science from Texas A&I University, Kingsville, Texas. Bill lived in Central and South America for more than 20 years while working with the U.S. Peace Corps implementing non-formal education learning programs.

STANDARD 2



A. RESPONSIBLE DEPARTMENT

The University of Texas - Rio Grande Valley Facilities Planning and Operations is responsible for all major decisions regarding the care of campus trees. The Facilities Programs and Services department director will bring issues to the associate vice president (AVP) for Facilities Planning and Operations, The AVP will, in turn, make recommendations to the Campus Tree Advisory Committee (CTAC), to be taken if other than standard arboriculture tree care is required.



B. CAMPUS TREE ADVISORY COMMITTEE

As indicated in Standard 1, and per policy, the CTAC will meet quarterly and at the call of the chair. Permanent members include two UTRGV biology faculty, staff, five community representatives, and one student research assistant. The committee is tasked to assist in providing guidance for future planning, approving a campus master plan, educating the campus population on the value of trees, providing recommendations concerning Heritage tree removals, and, per the campus tree inventory, designating status of trees. The committee will also establish goals for increasing the number of trees on campus.

CAMPUS TREE CARE POLICY

D. CAMPUS TREE CARE POLICY TREE PRESERVATION AND PROTECTION- STANDARDS AND SPECIFICATIONS

These requirements and specifications shall pertain to all construction projects on The University of Texas at Rio Grande Valley (UTRGV) campus, including The University of Texas Systems Projects (Office of Facilities Planning and Construction, OFPC), and UTRGV Project Management and Construction Services, (PMCS). All trees on campus fall under this provision. Projects primarily fall under OFPC or PMCS but these standards and specifications shall apply to all trees on the campus and all the subsidiary sites .

Damage to trees is not always visible. Impacts to the root systems of trees are common on construction sites, and may not be immediately apparent; trees can show signs of decline years after root damage occurs. It is for this reason that this specification addresses damage prevention as it pertains to construction parameters. This specification also details requirements for workers on site—areas off limits for parking, storing equipment, etc. The goal is to address conflicts before they arise and before start of work. Failure to adhere to these standards and specifications shall result in work stoppage (in the affected work area).

1.00.0 DEFINITIONS

- * **Caliper Inch:** the diameter of a young tree. It is measured 6” above ground for trees up to and including 4” caliper size. If caliper at 6” above ground exceeds 4” caliper, the tree will then be measured at 12” above the ground. Newly planted (nursery stock) trees on the UTRGV campus are measured in caliper inches.
- * **Critical Root Zone (CRZ):** an area from the base of the tree that extends beyond the drip line. It is equal to 1 foot radius for every inch of stem diameter. This minimum area is needed for tree and root health and stability.
- * **Damage or damaged:** A tree is considered “damaged” when a physical/mechanical action damages parts of the stem, canopy or roots.
- * **Diameter at Breast Height (DBH):** a standard method of measuring stem diameter 4.5 feet above the ground. Established trees on UTRGV campus are measured in DBH inches.
- * **Drip Line:** Considered the outer edge of the tree canopy. An imaginary vertical point that extends from the canopy edge to the ground.
- * **Heritage Trees:** Trees greater than 24” DBH. Does not include: Tree of Heaven, Salt Cedar, Mimosa, Chinese Tallow, Paper Mulberry, Siberian Elm, White Mulberry, Vitex, Russian Olive, Chinese Parasol, Golden Rain Tree, Ligustrum species, Chinaberry, Nandina, Photinia, and Pyracantha.
- * **Landscape Services (LS) representative:** urban forester, staff arborist, or designee by UTRGV landscape services.
- * **Owner:** TBD by project scope.
- * **Owner’s representative:** TBD by project scope but usually an OFPC or PMCS project manager.
- * **Replacement Tree:** A self-supporting tree on the UTRGV Desirable Tree Species list that meets caliper inch requirements.
- * **Tree Survey:** Part of the construction plans; contains tree tag number, location of trees (GPS located if possible), DBH, species, and drip line (if possible).
- * **Tree Protection Plan:** A written part of the construction plans that describes measures to protect trees during all phases of the project; it should include details, notes, location of tree protection fence, and any other applicable items.

CAMPUS TREE CARE PLAN



2.00.0 PRECONSTRUCTION REQUIREMENTS

An ISA Certified Arborist <http://www.isa-arbor.com/certification/index.aspx> shall manage any contract work dealing with trees on The University of Texas at UTRGV campus. All tree care activities shall require at minimum, an ISA Certified Tree Worker to be on site at all times. UTRGV tree-related construction standards and specifications can be found on the PMCS website at: <http://www.utexas.edu/pmcs/dc-standards/>. Additional construction details for trees are forthcoming. Trees to be planted and managed on construction sites at UTRGV shall adhere to specifications based on the most recent editions of the following:

- 2.00.1** American National Standards Institute (ANSI) Z60.1-2013
- 2.00.2** ANSI A300-01 Pruning (2014)
- 2.00.3** ANSI A300-02 Soil Management (Fertilization) (2011)
- 2.00.4** ANSI A300-05 Management of Trees and Shrubs during Site Planning, Site Development, and Construction (2012)
- 2.00.5** ANSI A300-06 Planting and Transplanting (2012)
- 2.00.6** ANSI A300-08 Root Management (2013)
- 2.00.7** Related ISA Best Management Practices (BMP's)

2.01.0 PRE-CONSTRUCTION CONFERENCE

A pre-construction meeting with the Owner's Representative shall be set at least seven days before start of work to review any questions the Contractor may have regarding the work, administrative procedures during construction, and project work schedule. This meeting shall include a UTRGV legal services representative.

2.01.1 The following Contractors shall attend the preconstruction conference:

2.01.11 General Contractor

2.01.12 Consulting Arborist

2.01.13 Subcontractor assigned to install Tree and Plant Protection measures

2.01.14 Earthwork Contractor all site utility Contractors that may be required to dig or trench into the soil.

2.01.15 Landscape subcontractor

2.01.16 Irrigation subcontractor

2.02.0 DEVELOPMENT SITE TREE ASSESSMENT

2.02.01 The contracted landscape architects and/or arborist shall provide a tree evaluation of trees on site. This will be communicated to OFPC, PMCS and other applicable UTRGV departments prior to any site preparation beginning. The project may provide an assessment from an outside arborist (ISA Certified Arborist, or ASCA Registered Consulting Arborist (RCA). This assessment shall include all potential tree pruning, removals, health care, or transplanting and must be approved by the contracted landscape architects and/or arborist. A written report and map, including the current condition of the tree, shall be provided.

2.03.0 TREE SURVEY

2.03.1 Any outside tree survey shall use the existing UTRGV tree inventory tag numbers. If a tree is missing a tag or has a number that is illegible or not intact, then a new number can be assigned and tagged on that tree. Inform contracted landscape architects and/or arborist of these changes. Do not remove existing tree

CAMPUS TREE CARE PLAN

tag numbers. If needed, contracted landscape architects and/or arborist shall provide tree inventory data for project area.

2.03.2 All trees 8" DBH and greater on all development sites shall be surveyed and shown on the site plan. Survey criteria shall state tree number, species, and tree DBH, and shall cross-reference existing tree numbers. Any tree survey must be vetted by the contracted landscape architects and/or arborist prior to the issuance of construction documents.

2.04.0 CRITICAL ROOT ZONE DETERMINATION (CRZ):

The contracted landscape architects and/or arborist will coordinate specific requirements regarding scaffolding, construction traffic, build back, forms, foundation, or any other issues as they relate to CRZ. These standards act as the minimum amount of preservation required:

2.04.1 One-foot of radial protection per diameter inch of tree shall determine CRZ (i.e., a 20" tree would have a 40 foot diameter CRZ; see chart below)

2.04.2 Areas:

2.04.21 A quarter of CRZ means no impact is allowed

2.04.22 Half of CRZ means no cut or fill greater than 4" is allowed

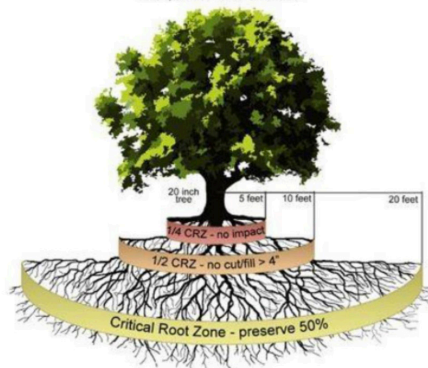
(i.e., for a 20" tree it would be 20ft in diameter)

2.04.23 Total CRZ needs to be preserved by at least 50%.

Tree diameter, DBH (inches)	Critical Root Zone, CRZ (feet)
8 inches	16 feet
10 inches	20 feet
15 inches	30 feet
20 inches	40 feet
25 inches	50 feet
30 inches	60 feet
40 inches	80 feet

The Critical Root Zone - Development Impact Zones

Example: 20 inch diameter tree



Graphic Used with Permission from City of Austin

2.05.0 TREE PROTECTION FENCING

All trees and natural areas shown on plan to be preserved shall be protected with temporary chain-link fencing. In areas where installation of chain-link fencing would be detrimental to a tree or a tree's root system, other methods of fencing may be acceptable per approval from contracted landscape architects and/or arborist (i.e., Chain-link panels, plastic fencing, etc.).

2.05.1 Protective fences shall be erected according to UTRGV standards for tree protection.

2.05.2 Protection fencing shall be installed prior to the start of any site preparation work (clearing, grubbing grading) and shall be maintained throughout all phases of the construction project until the final walkthrough is performed unless prior approval is sought through contracted landscape architects and/or arborist.

2.05.3 Tree protection fencing that is damaged or found to be non-compliant shall be repaired/replaced within 24 hours of notice or a stop work order shall be given.

2.05.4 Erosion and sedimentation control barriers shall be installed or maintained in a manner that does not result in damage to the tree or Critical Root Zone (CRZ) and in a manner that does not result in soil buildup.

2.05.5 Protective fences shall surround the trees or groups of trees, and will remain at the location specified in the approved site plan. For natural areas, protective areas shall follow the limit of construction line in order to prevent the following:

2.05.51 Soil compaction in the root zone area as a result from vehicular traffic or storage of equipment and materials.

2.05.52 Root zone disturbances due to grade changes (greater than 4 inches of cut or fill), or trenching not approved or authorized by the contracted landscape architects and/or arborist.

2.05.53 Wounds to exposed roots, trunk or limbs by mechanical equipment.

2.05.54 Other activities detrimental to trees such as chemical storage, concrete clean-outs and other construction spoils.

2.05.6 Exceptions to installing fences at CRZ shall be permitted in the following cases:

2.05.61 Where there is to be an approved grade change, impermeable paving surface, tree well, or other such site development, erect the fence 2 to 4 feet beyond the area disturbed.

2.05.62 Where permeable paving is to be installed within a tree's CRZ, erect the fence at the outer limits of the permeable paving area (prior to site grading so that the area is graded separately prior to paving installation to minimize root damage).

2.05.63 Where construction activities come within 6 feet of any tree, protection of the trunk with strapped on planking to the height of 8 feet (or the limits of lower branching) may be required in addition to the reduced fencing provided.

2.05.64 Where trees are close to proposed buildings, erect the fence so there is 6 to 10 feet of workspace between the fence and the building.

2.05.65 Where there are severe space constraints due to limits of construction (LOC) or other special requirements contact the contracted landscape architects and/or arborist.

2.05.66 Special Note: For the protection of natural areas, fences are required. No exceptions.

2.06.0 TREE TRANSPLANT SPECIFICATIONS

2.06.1 Trees suitable for transplanting, and their future locations, shall be designated on site plan and marked on site at least six months prior to commencing site preparation activities.

2.06.2 Tree transplant contractor should be allowed at least 90 days lead time for root pruning activities prior to moving trees.

2.06.21 It is recommended that trees be moved between the months of October and February, if possible.

2.06.3 Final grading and elevation of transplant trees shall be confirmed prior to final issuance of construction documents.

2.06.4 Coordination of logistics for movement of transplant trees shall include OFPC, general contractor, engineer, and contracted landscape architects and/or arborist.

2.06.5 Transplanting of trees shall be done in a manner that is industry standard (e.g., time-tested practices etc.). contracted landscape architects and/or arborist shall

approve these means and methods.

2.06.6 The tree transplant contractor or landscape subcontractor shall maintain all transplanted trees during construction and for an additional twelve months following substantial completion. In addition, all transplant trees must survive two years past substantial completion.

2.06.61 To include irrigation, mulching, erosion control, weed control, and any other necessary plant care activities.

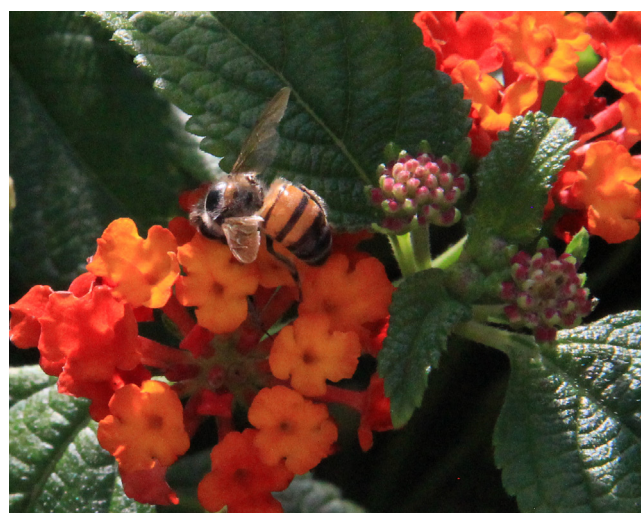
2.06.62 If a tree fails to survive the two year timeframe, a new tree will be provided by the general contractor (size and species TBD).

2.07.0 TREE REMOVAL AND REPURPOSING SPECIFICATIONS

2.07.1 Trees approved for removal shall be removed in a manner that does not impact trees to be preserved. Reference Technical Standards Subsection 3.00.0.

2.07.2 Contractor performing tree removal shall coordinate with contracted landscape architects and/or arborist to remove selected trees in a manner that will enable them to be processed into usable materials.

2.07.3 Contractor will transport trees removed for repurposing to a local UTRGV property (exact location TBD).



CAMPUS TREE CARE PLAN

F. PROTECTION AND PRESERVATION PRACTICES



3.00.0 TREE PROTECTION DURING CONSTRUCTION

3.01.0 Projects on the UTRGV campuses, shall adhere to specifications based on the most current editions of the following:

3.01.1 American National Standards Institute (ANSI) A300– 05 Management of Trees and Shrubs during Site Planning, Site Development, and Construction (2012).

3.01.2 ANSI z133.1 Safety Standards

3.01.3 Related ISA Best Management Practices (BMP's)

3.02.0 TREES WITHIN LOC ARE ULTIMATELY THE PROPERTY OF UTRGV

All attempts shall be made to ensure survivability of trees in regards to construction impacts. Including:

3.02.1 Continuous inspection of tree protection fencing installed per university specifications and approved site plan (by contracted landscape architects and/or arborist and general contractor).

3.02.2 Any encroachments into tree protection fencing and CRZs shall be brought to the attention of the project manager and/or construction inspector, contracted landscape architects and/or arborist, or landscape services representative. Refer to section 2.05.3

3.02.3 Deviations from approved tree preservation plans will occur only with written authority from contracted landscape architects and/or arborist or UTRGV landscape services representative.

3.03.0 CRITICAL ROOT ZONE (CRZ) MANAGEMENT

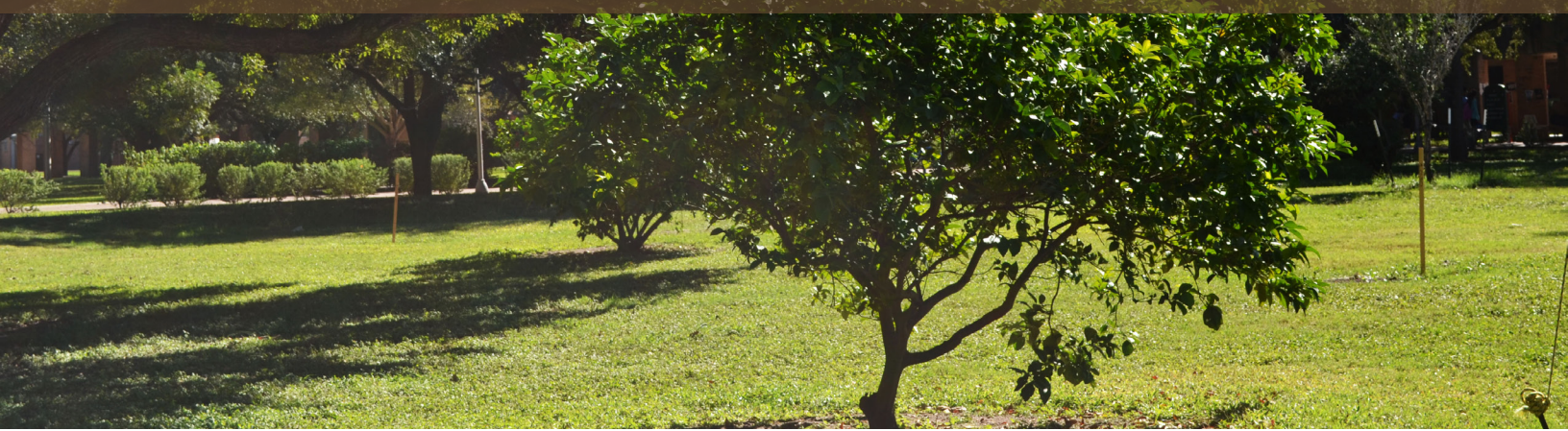
Any roots two inches (2”) or greater severed by construction activities shall be pruned flush with the soil. Roots severed shall be backfilled with quality soil or compost as soon as possible. Cuts to oak roots shall be made using disinfected tools and painted when finished. If exposed roots are not backfilled within 48 hours, cover them with organic material in a manner that reduces soil temperature and minimizes water loss due to evaporation. Excavations within CRZ shall be first assessed by means of air excavation.

Utilizing a compressed air tool significantly decreases damage to roots. Locating roots using this method allows for proper root pruning and preservation techniques that will increase the chance of survival of the tree.

3.03.1 Air Excavation Specifications:

3.03.11 A compressor-powered air excavation tool shall be used to “pothole” (probe soil to certain depth in search of root material) proposed excavation areas.

3.03.12 Roots 2” and greater will be exposed and cut cleanly back to existing soil (wound paint and disinfected tools required for all oaks).



3.03.13 A quality topsoil and/or compost shall be used as backfill in areas where roots are present.

3.03.14 Coordinate with the requirements of the proposed planting soil section for modifications to the soil within the root zone of existing trees.

3.03.2 Any trenching required for the installation of landscape irrigation shall be installed as far from existing tree trunks as possible, and must be outside of quarter CRZ.

3.03.3 No soil greater than 4 inches shall be permitted within the half CRZ of trees. No soil or mulch is permitted on the root flare of any tree.

3.03.4 Pruning to provide clearance for structures, vehicular clearance and equipment shall take place before damage occurs (ripping of branches etc.).

3.03.5 All pruning shall be performed to ANSI A300 - 01 Pruning Standards (2014), ANSI Z133.1 Safety Standards, and be completed by tree care professionals with a minimum of an ISA Certified Tree Worker on site. No more than 25% of the tree may be pruned. Anything above 25% must be approved by contracted landscape architects and/or arborist.

3.03.6 Contracted landscape architects and/or arborist shall approve any modifications to the tree protection plan.

3.03.7 Removal of Hardscape Areas from CRZ
Special care shall be taken when removing sidewalks, streets, pavers, etc., from within CRZ. This will include but not be limited to:

3.03.71 Saw cutting and hand removal of materials within CRZ

3.03.72 Reduced heavy equipment access within CRZ

3.03.73 Installation of mulch (4-6 inches) within CRZ for root protection.

3.03.8 Installation of Ground Protection Mats or Mulch

3.03.81 Areas where foot traffic or storage of lightweight materials is unavoidable, provide a layer of 4-5 inches of wood chips or mulch.

3.03.82 Areas where heavy vehicle traffic is unavoidable provide a layer of 68 inches of wood chips or mulch and add ground protection mats on top.

3.03.9 Concrete Washout areas shall be outside of CRZ.

3.04.0 IRRIGATION STANDARDS FOR TREES PRESERVED ON SITE

In order to minimize impacts of construction, trees located within LOC and slated for preservation shall continue to receive the necessary levels of irrigation to ensure survival. Coordination must be made between UTRGV Landscape Services Irrigation staff and the general contractor.

3.04.01 Trees within preservation zones will continue to be irrigated through duration of project.

3.04.02 Irrigation systems shall be continually monitored to ensure correct coverage.

3.04.03 If irrigation service is interrupted, water shall be provided by the general contractor. Water barrels, tree gators and water trailers/tankers are suitable substitutes.

CAMPUS TREE CARE PLAN



3.05.0 MAINTENANCE OF CRZ AREAS WITHIN LOC CONTRACTORS SHALL BE RESPONSIBLE FOR GRASS AND WEED MAINTENANCE INSIDE LOC AND TREE PROTECTION FENCE AREAS.

3.05.01 Grass will remain trimmed inside all tree protection fencing, work shall be performed on the same frequency as surrounding area.

3.05.02 Routine hand weeding is required for all mulch areas located within the tree protection zone.

3.05.03 Trash inadvertently deposited within tree preservation zones shall be removed prior to trimming or mowing.

3.06.0 TREE INSPECTIONS

To ensure compliance of tree preservation, a contracted landscape architects and/or arborist, UTRGV Landscape Services representative, or a project appointed arborist, shall conduct regular inspections. Frequency based on project needs. If project has a consultant arborist, inspections shall be monthly at minimum. Reports shall be provided to the university project manager and sent to all parties. Inspections shall include:

3.06.01 Tree preservation zone encroachment

3.06.02 Structural integrity of tree protection fencing

3.06.03 Irrigation/soil moisture levels

3.06.04 Evidence of plant stress

3.06.05 Insects and disease activity

3.06.06 Dust levels on leaves

5.00.0 TREE MITIGATION POLICY

5.01.0 Heritage Trees

5.01.1 Heritage Trees (24" DBH and above) shall not be removed without a review process, except those species listed in section 5.04.2 below. That review will take into account the following:

5.01.12 Current health of the tree (tree is dead, tree is a risk, or tree is diseased)

5.01.121 Contracted landscape architects and/or arborist shall determine current condition of tree. If tree is dead, diseased, or poses a risk, contracted landscape architects and/or arborist will evaluate and this will affect mitigation requirements.

5.01.13 Final approval will be determined by the Director of Facilities Services for UTRGV.

5.01.2 Trees shall be replaced on a 3” to 1” ratio (i.e., if you have removed a 24” DBH tree, 72 caliper inches must be replaced). See section 1.00 for difference between DBH and caliper.

5.02.0 8” - 23.9” DBH Trees

5.02.1 Trees shall be replaced on a 1” to 1” ratio, except those species listed in section 5.04.2 below. For example: a 20” diameter tree will be replaced by 20 caliper inches; this could mean five, 4” trees or ten, 2” caliper trees.

5.03.0 Trees less than 8” in diameter require no replacement for any species. (see section 6.01.4 for preservation credits).

5.04.0 SPECIES

5.04.1 The following species are required to be replaced:

All Native Texas Oaks, Acacaho orchid, Anacahiuta, Anacua, Bald Cypress Black Willow, Brasil, Cedar Elm, Chapote, Colima, Coma Del Sur, Coral Bean, Desert Yaupon, Honey Mesquite, Magnolia ‘Bronze Sentinel,’ Mescal Bean, Mexican Sycamore, Montezuma Cypress, Pecan, Retama, Spiny Hackberry, Tepeguaje, Texas Ebony, Texas Paloverde, Texas Persimmon, Western Soapberry, White Brush, Wright Catclaw and Yaupon Holly.

5.04.2 The following species are not required to be replaced on any site:

Chinese Parasol, Chinese Tallow, Chinaberry, Golden Rain Tree, Hackberry, Ashe Juniper, Ligustrum species, Vitex, Mimosa, Nandina, Paper Mulberry, Photinia, Pyracantha Russian Olive, Salt Cedar, Siberian Elm, Tree of Heaven and White Mulberry.

TREE SPECIES ON UTRGV CAMPUS

<i>Quercus virginiana</i> (Live oak)	<i>Delonix regia</i> Royal poinciana
<i>Washingtonia robusta</i> Mexican fan palm	<i>Pittosporum tobira</i> Japanese pittosporum
<i>Fraxinus berlandieriana</i> Arizona ash	<i>Prunus mexicana</i> Mexican plum
<i>Lagerstroemia indica</i> Common crapemyrtle	<i>Carya illinoensis</i> Pecan
<i>Sabal palmetto</i> Rio grande palmetto	<i>Ceiba pentandra</i> Ceiba
<i>Ulmus crassifolia</i> Cedar elm	<i>Callistemon citrinus</i> Crimson bottlebrush
<i>Washingtonia fillifera</i> California palm	<i>Ficus religiosa</i> Peepul tree
<i>juniper spp</i> juniper spp	<i>Beaucarnea recurvata</i> Ponytail palm
<i>Cordia boissieri</i> Anacahuita	<i>Magnolia grandiflora</i> Southern magnolia
<i>Quercus macrocarpa</i> Bur oak	<i>Citharexylum berlandieri</i> Berlandier’s fiddlewood
<i>Quercus rubra</i> Northern red oak	<i>Salix nigra</i> Black willow
<i>Vitex agnus-castus</i> Chaste tree	<i>Condalia hookeri</i> Brazilian bluewood
<i>Pistache chinensis</i> Chinese pistache	<i>Schinus terebinthifolius</i> Brazilian pepper
<i>Sophora secundiflora</i> Mescalbean	<i>Livistona chinensis</i> Chinese fan palm
<i>Ebonopsis ebano</i> Texas ebony	<i>Koelreuteria bipinnata</i> Chinese flame tree
<i>Diospyros texana</i> Texas persimmon	<i>Psidium guajava</i> Common guava
<i>Ilex vomitoria</i> Yaupon	<i>Duranta erecta</i> Golden dewdrops
<i>Prosopis glandulosa</i> Honey mesquite	<i>Eucalyptus sp</i> gum spp
<i>Taxodium mucranatum</i> Montezuma cypress	<i>Eriobotrya</i> loquat spp
<i>Olea europea</i> Olive	<i>Eriobotrya japonica</i> Loquat tree
<i>Triadica sebifera</i> Tallowtree	<i>Pachira spp</i> pachira spp
<i>Populus deltoides</i> Eastern cottonwood	<i>Punica granatum</i> Pomegranate
<i>Ehretia anacua</i> Knockaway	<i>Roystonea sp</i> royal palm spp
<i>Phoenix dactylifera</i> Date palm	<i>Sideroxylon celastrinum</i> Saffron plum
<i>Phoenix canariensis</i> Canary island date palm	<i>Celtis laevigata</i> Sugarberry
<i>Chilopsis sp</i> Desertwillow	<i>Sapindus drummondii</i> Western soapberry
<i>Taxus baccata</i> English yew	

CAMPUS TREE CARE PLAN



Above: A live oak outside of the HPE2 building marks the approximate location of the original office of James (Jim) Brooks, Athletic Director, Emeritus, Pan American University. The plaque reads, “Coach Brooks served as professor and chair of health and physical education and director of athletics from 1950-1983. He dedicated his life to teaching, coaching, and the development of facilities and programs. His dreams were realized. The facilities for physical education and athletics reflect the foresight and dedication of James A. Brooks. Dedicated on the UTPA campus September 3, 1996.”

5.05.0 MEMORIAL TREES

5.05.1 Various memorial trees exist throughout UTRGV. The project shall attempt to preserve in place or transplant any memorial trees on the site. The university reserves the right to remove or relocate trees in an unforeseen circumstance. If a tree cannot be relocated due to restrictions of tree size and available planting locations, the tree will be removed and replaced with a new one at the discretion of the contracted landscape architects and/or arborist. The first option shall be to replace on site if space is available; costs to be covered by the project.

5.06.0 TREES WITH HISTORICAL SIGNIFICANCE

5.06.1 The project shall make every attempt to preserve in place or transplant any trees with historical significance within LOC. The university reserves the right to remove or relocate trees in an unforeseen circumstance. If a tree cannot be relocated due to restrictions of tree size and available planting locations, the tree will be removed and replaced with a new one(s) at the discretion of the contracted landscape architects and/or arborist. The first option shall be to replace on site if space is available; costs shall be covered by the project.

CAMPUS TREE CARE PLAN

6.00.0 TREE REPLACEMENT REQUIREMENTS

6.01.0 Tree mitigation shall be required when the above sizes of trees are removed. Examples shall include one or more of the following mitigation measures:

6.01.1 Planting replacement trees on the site in accordance with the latest edition of the American Standard for Nursery Stock (ANSI Z60.1).

6.01.2 Transplanting existing trees on site or nearby. Any transplant tree can count 50% toward total mitigation; for example: a 30" diameter oak would count toward 45 inches of required mitigated inches (due to heritage trees being replaced 3:1).

6.01.3 If above options have been exhausted, trees shall be planted at other available locations on main campus, other local UTRGV properties, or with a local tree non-profit.

6.01.4 All trees (from section 5.04.1) below 8" diameter that are preserved on site will count 50% toward total mitigation; for example: five 6" elm trees are preserved on the perimeter of the site – this would count toward 15 inches of required mitigated inches.

6.02.0 QUANTITIES OF REPLACEMENT TREES

6.02.1 Existing tree inches are calculated in DBH inch but replacement trees are calculated in caliper inch (i.e.: 20" DBH tree removed equals 20 caliper inches replaced).

6.02.2 Size of trees replaced on development sites should range between 1" and 4" in caliper. Trees greater than 4" may be planted if feasible and approved by contracted landscape architects and/or arborist.

6.02.3 Replacement trees shall be planted to the extent on the site without jeopardizing spacing requirements for future growth of the trees, or impacting existing tree canopy.

6.02.4 Newly planted trees on development projects shall be spaced in the following manner:

6.02.41 Large trees shall be planted at least 30 feet off center

6.02.42 Medium sized trees shall be planted at least 20 feet off center.

6.02.43 Small sized trees shall be planted with proper spacing per species

6.02.5 Types and sizing of replacement trees: refer to the UTRGV Desirable Tree Species List:

(<http://www.utexas.edu/facilities/divisions/support/documents/UT-Desirable-Tree-List.pdf>)

*Disclaimer: Riparian restoration projects may have a different list of desirable species.

6.02.6 A minimum of 5 different species from the UTRGV Desirable Tree Species List should be planted if more than 100 caliper inches is required. No more than 30% of one species should be planted.

6.02.7 Newly planted trees should have the following available soil volumes:

6.02.71 Large trees (from desirable species list) - 1,000 ft³

6.02.72 Medium trees – 500 ft³

6.02.73 Small trees (ornamental) – 275 ft³.

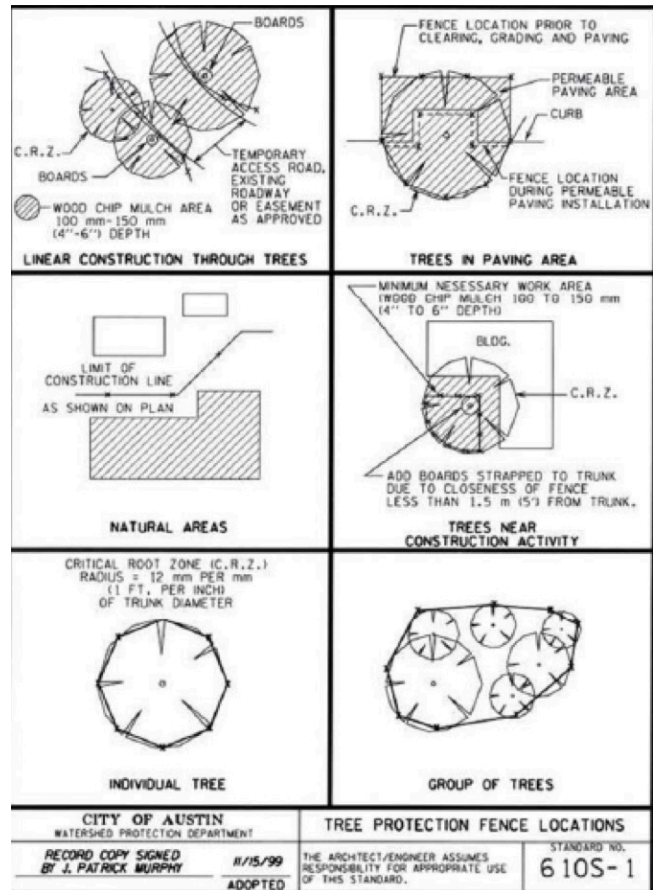
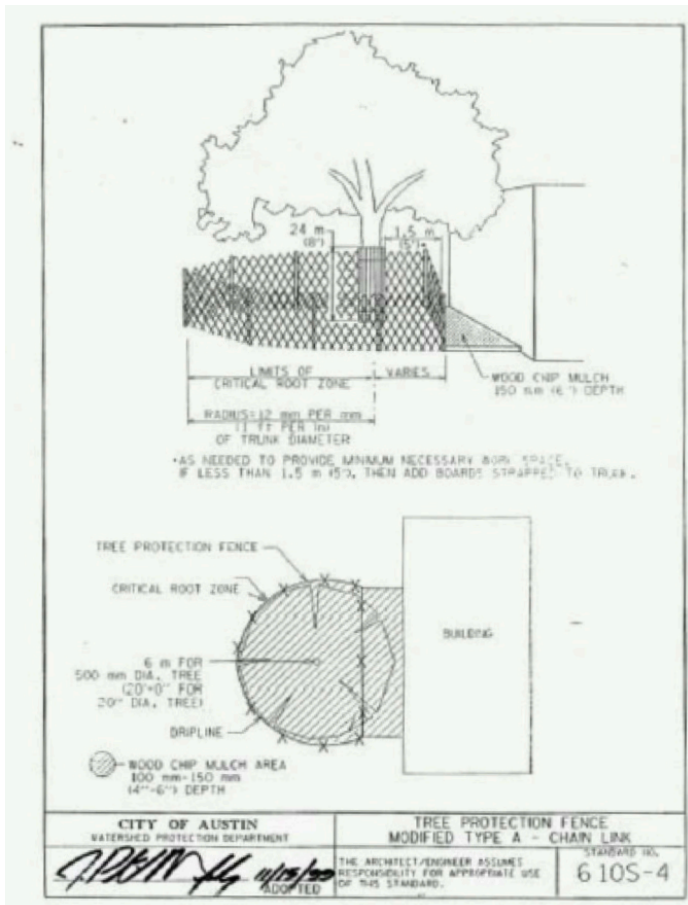
6.03.0 PLANTING SEASON REQUIREMENTS

6.03.1 Optimal tree planting window in South Texas is typically from October through March. Projects shall consider this during the site plan process. If possible, landscape installations should be held to that timeframe. Signage and education materials can be used to assist university personnel in this area. Consider minimal plantings to suffice until planting season.

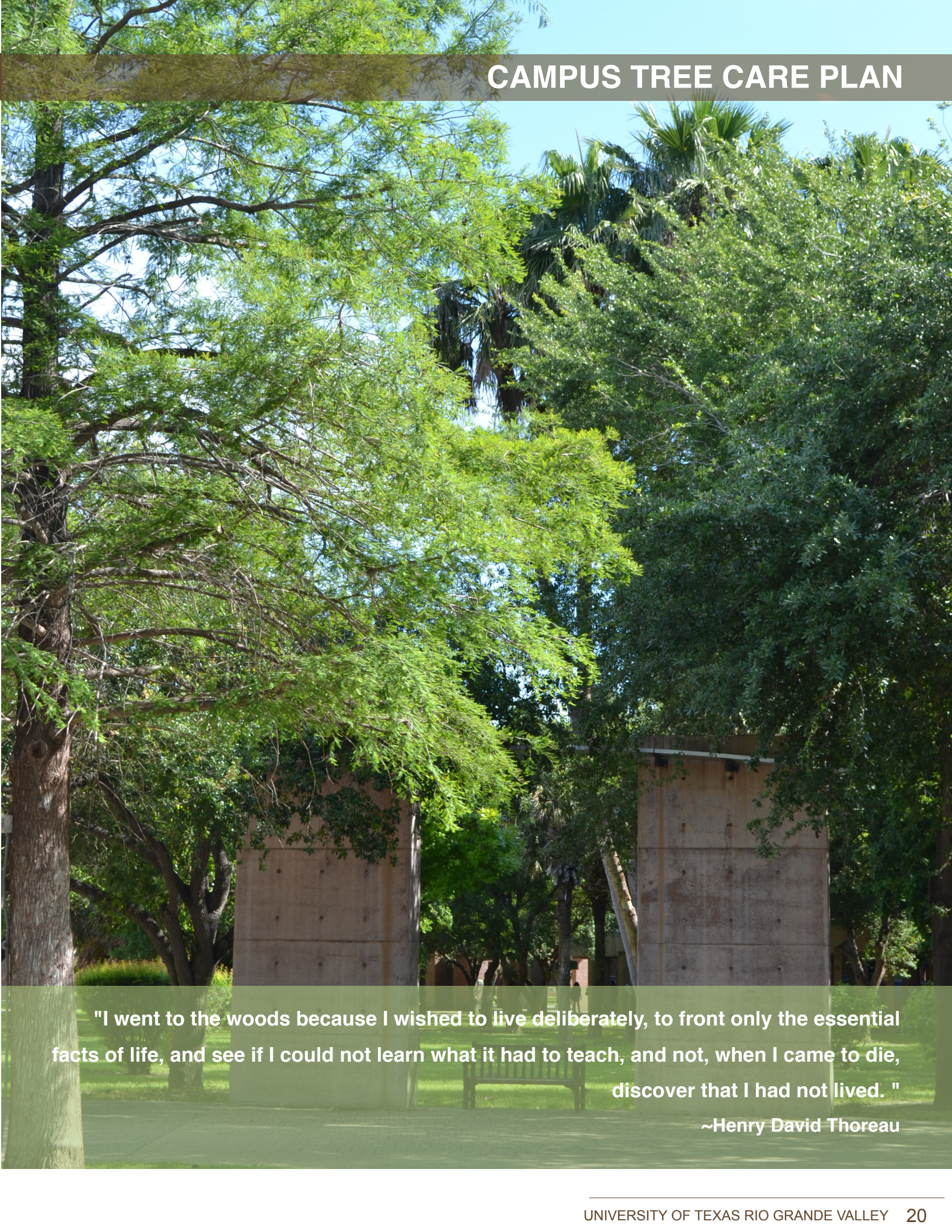


CAMPUS TREE CARE PLAN

EXAMPLES OF TREE PLANTING DETAILS FOR CONSTRUCTION DOCUMENTS:



CAMPUS TREE CARE PLAN



"I went to the woods because I wished to live deliberately, to front only the essential facts of life, and see if I could not learn what it had to teach, and not, when I came to die, discover that I had not lived. "

~Henry David Thoreau

CAMPUS TREE CARE PLAN

TECHNICAL STANDARDS FOR TREE PLANTING, MAINTENANCE, AND REMOVAL

1.00.0 TREE PLANTING SPECIFICATIONS

1.01.0 Projects on UTRGV shall adhere to specifications based on the most recent editions of the following for tree planting:

1.01.1 American National Standards Institute (ANSI) A300 – 06 Planting and Transplanting Standards (2012)

1.01.2 American National Standards Institute (ANSI) Z60.1-2013, standards for nursery stock

1.01.3 ANSI Z133.1 Safety Standards

1.01.4 Related ISA Best Management Practices (BMP's)

1.02.0 Planting Soil: refer to UTRGV soil specifications and standards.

1.03.0 Irrigation: Refer to UTRGV landscape irrigation specifications. Note: Tree irrigation zones (valves) must be separate from other landscape irrigation zones. Every newly planted tree shall have a minimum of 1 irrigation bubbler installed (drip allowed), with the goal of watering as much of the root ball surface area as possible.

1.04.0 STAKING:

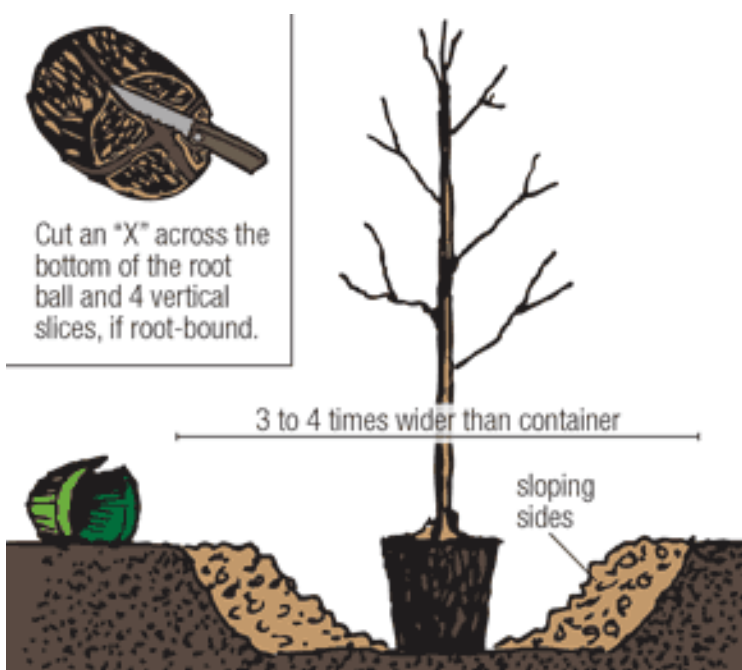
Place 3 t-posts (or similar) around each tree, and drive into existing soils. Wire, rope, or other methods of securing the tree shall not injure the bark. Stakes should be removed after the first growing season. Posts must be marked for safety (painting, caps, etc.). Six foot t-posts are the typical means of staking.

1.05.0 TREE GRATES:

Only in instances of pier and beam (floating-deck) walk areas will tree grates be permitted. These are areas where a significant gap exists between top of root ball of newly planted trees and the finished elevation of the hardscape. No tree grates shall be installed on existing mature trees.

1.06.0 TYPES OF NURSERY STOCK:

Trees and shrubs can be purchased as bare root, in containers or pots, or with root balls wrapped in burlap (B&B). Bare root trees and shrubs are usually less expensive than containerized or B&B plants, but are available only during their dormant season, usually in early spring. Containerized and B&B trees and shrubs are available throughout the growing season. The preference is for all plant material to be from local seed source. UTRGV landscape services shall receive at least 48-hour notice of delivery of plants to job site.



1.06.1 Planting of Bare Root Trees

1.06.11 Roots of bare root trees should be moist and protected at all times prior to planting. Prepare planting hole for each plant before removing it from their protected area.

1.06.12 The hole prepared shall be large enough to spread the roots without crowding. The sides of the hole shall be roughed sure to ensure glazing of hole does not occur.

1.06.13 Inspect roots and prune any that appear broken or damaged.

1.06.14 Place the roots in the hole at a level so that the soil surface will be at the same level where the plant was previously growing, as indicated by the slightly darker area of the trunk. Trees should be planted so that trunk flare is visible above the final soil surface.

1.06.15 Backfill with existing soil from excavated hole, and add the soil into the hole a few inches at a time, firming the soil after each addition. While backfilling, be sure the plant remains vertical and be careful not to damage roots. Use water to settle the soil around the roots while backfilling. Do not compact wet soil.

1.06.16 After backfilling is complete, form a ridge of soil (berm) around the edge of the hole to hold water on the roots.

1.06.17 Thoroughly water the plant at installation. Mulching with a local hardwood mulch helps retain moisture and deter weeds. Mulch root ball with 3” of mulch and keep mulch 1-2 inches away from the plant’s trunk to prevent damage from moisture. cannot currently be displayed.

1.06.2 PLANTING OF CONTAINERIZED TREES

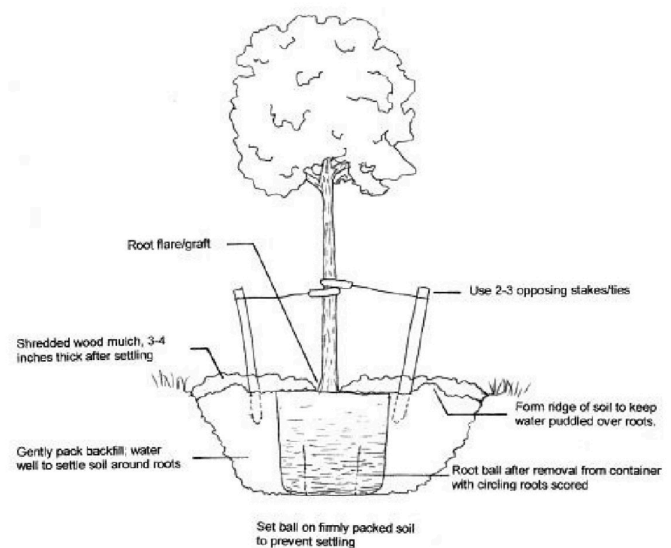
1.06.21 Prepare a planting hole as described in #2 above. The depth of the hole should be the same as the soil in the container, and the width of the hole should be at least twice the width of the container.

1.06.22 Once the planting hole is prepared, lay the containerized tree or shrub on its side and gently slide the plant out of the container. It may be necessary to push on the sides of the container to loosen the root ball. If the plant has become root-bound and roots have circled the container, slice the root ball in 4-5 places with a pruning saw or hand pruners that will cleanly cut roots. Loosen exterior of root ball to promote lateral root growth.

1.06.23 Place the intact root ball in the hole. Trees should be planted so that trunk flare is visible above the final soil surface. Ideally, this is the same level at which the tree was growing in the container, but many trees are buried several inches deep.

1.06.24 Backfill the soil into the hole a few inches at a time, firming the soil after each addition. While backfilling, be sure the tree remains vertical.

1.06.25 Form a ridge to hold water and stake and protect trees as described above under “Planting Bare Root Trees and Shrubs.”



CAMPUS TREE CARE PLAN

1.06.3 Planting of Balled and Burlapped Trees (B&B)

1.06.31 Prepare a planting hole as described above. The depth of the hole should be the same as the soil in the root ball, and the width of the hole should be at least twice the width of the root ball.

1.06.32 Place the root ball into the hole so that the soil surface will be at the same level where the plant was previously growing, as indicated by the slightly darker area of the trunk. This is usually the same level as the soil in the root ball. Trees should be planted so that trunk flare is visible above the final soil surface.

1.06.33 Cut the twine from the root ball and peel back the burlap and any metal basket or other material meant to hold the root ball together. Remove burlap from at least top third of root ball. Remove all metal from root ball. Also be sure to remove all twine from around the trunk of the tree or shrub.

1.06.34 Backfill the soil into the hole a few inches at a time, firming the soil after each addition. While backfilling, be sure the tree remains vertical.

1.06.35 Form a ridge to hold water and stake trees as illustrated.

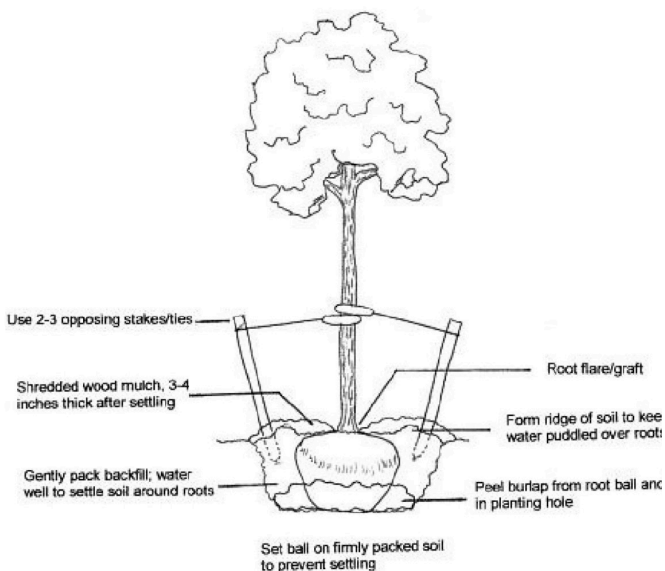
1.07.0 Install a tree guard on the base of each new tree to protect from weed trimmer damage. The guard must be expandable as the tree grows.

Appropriate B&B Root Ball Sizes

Trunk Caliper (inches)	Root ball Diameter
½	12
¾	14
1	16
1½	20
2	24
2½	28
3	32

Common Planting Problems

- Planting too deep roots suffocate
 - Planting too shallow roots dry out
 - Hole too narrow root system struggles to establish
 - Soft fill added to bottom of hole plant settles too deeply
 - Twine left on trunk girdles trunk
 - Wire basket left intact girdles roots
 - Container tree circling roots left intact
 - root system struggles to establish/girdles trunk
 - Twine left on trunk – girdles trunk
 - Wire basket left intact – girdles roots
 - Container tree circling roots left intact – root system struggles to establish/girdles trunk
- Examples of tree planting details for construction documents:



2.00.0 TREE PRUNING SPECIFICATIONS

2.01.0 Projects on The University of Texas at Rio Grande Valley shall adhere to specifications based on the most current editions of the following for tree pruning:

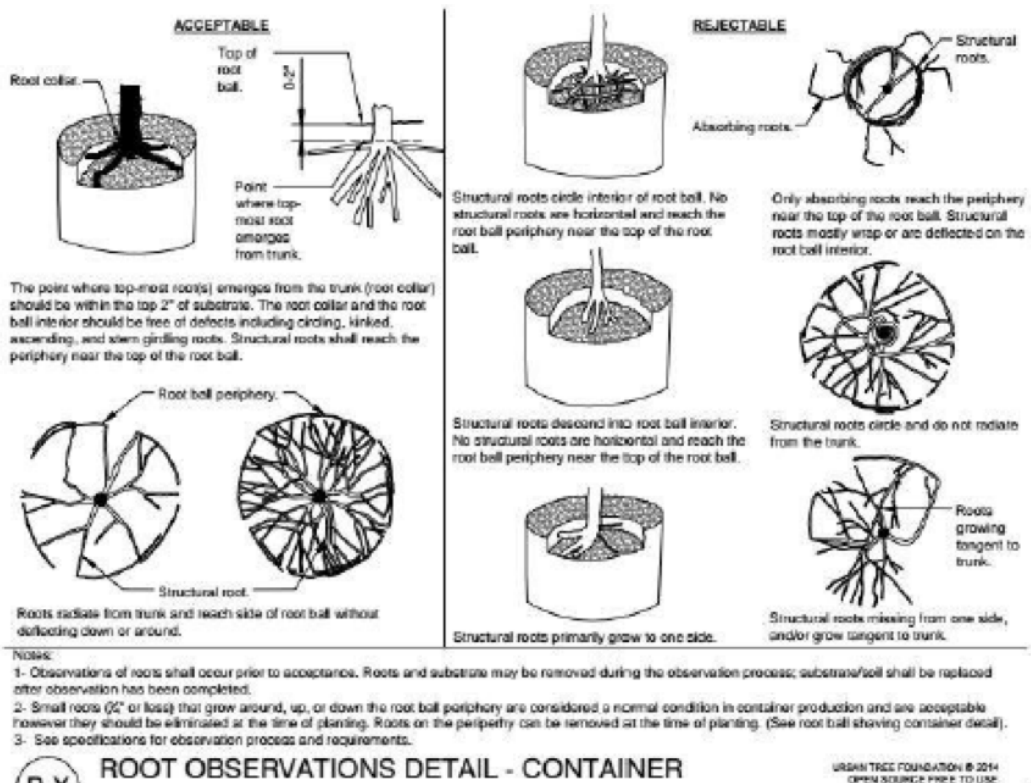
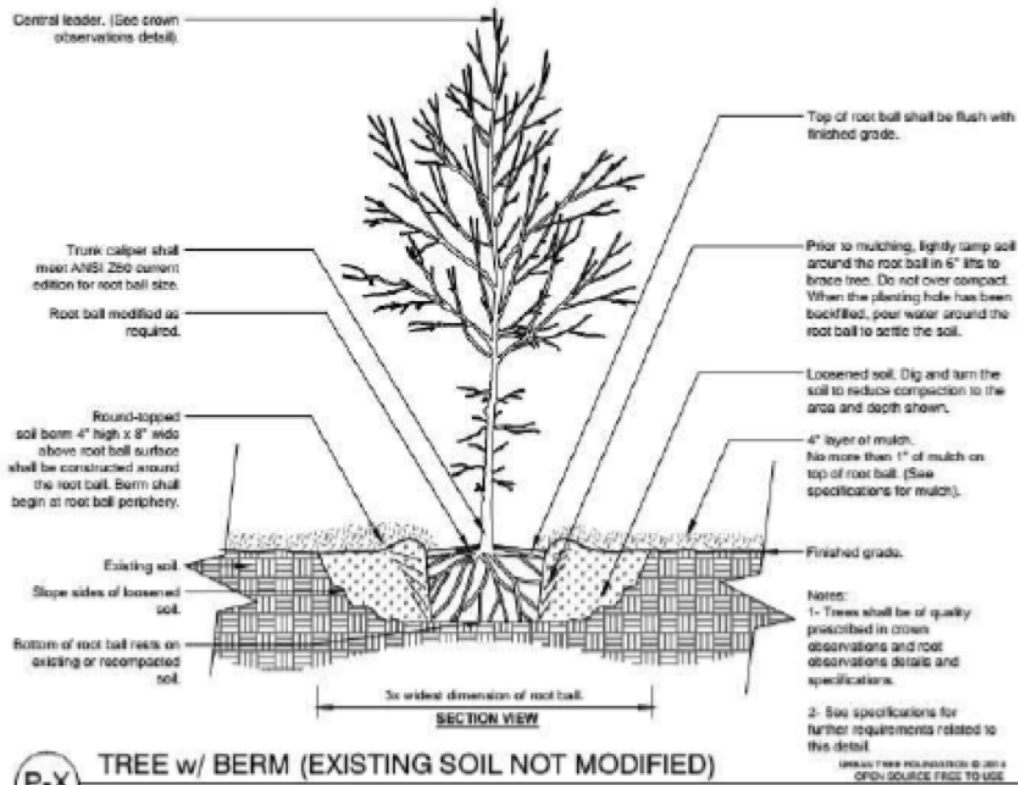
2.01.1 American National Standards Institute (ANSI) A300 - 01 Pruning Standards 2008(R2015)

2.01.2 ANSI Z133.1 Safety Standards

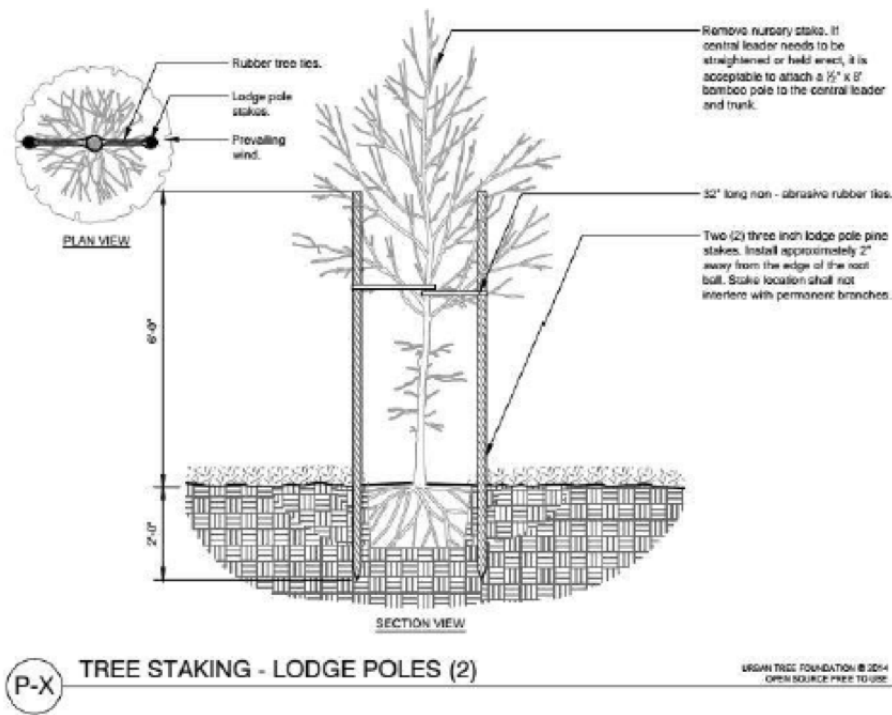
2.01.3 Related ISA Best Management Practices (BMP's)

CAMPUS TREE CARE PLAN

EXAMPLES OF TREE PLANTING DETAILS FOR CONSTRUCTION DOCUMENTS:



CAMPUS TREE CARE PLAN



2.02.0 CONTRACTORS WILL APPLY THE STANDARDS AND GUIDELINES WHEN ENGAGED IN PRUNING OPERATIONS ON CAMPUS.

To ensure that pruning is appropriate for the species and tree/site conditions, it is important to have a clear understanding of the specific needs of the tree and the objectives for pruning. Pruning objectives shall comply to section 2.04.0.

2.03.0 REQUIREMENTS FOR PRUNING TREES

2.03.1 No more than 25% of the tree may be pruned. Anything above 25% must be discussed and approved by contracted landscape architects and/or arborist.

2.03.2 No tree shall be cut back in such a manner that its health will be impaired. An exception to this may occur in tree removal or emergency storm damage situations in which protecting people or property is urgent. Any emergency procedures shall be brought to the attention of the contracted landscape architects and/or arborist.

2.03.3 When pruning cuts are made to a lateral branch, the remaining branch must possess a basal thickness of at least half the diameter of the wound affected. Such cuts shall be considered correctly done when the branch collar is left intact and the cut is not “flush” with the stem.

2.03.4 Tree branches shall be removed and controlled in such a manner as not to cause damage to other parts of the tree or to other plants and property.

2.03.5 All cutting tools and saws used in pruning shall be kept adequately sharpened so as to retain smooth surfaces and secure bark on all cuts.

2.03.6 Precautions for the inadvertent transmittal of oak wilt will be recognized. This includes the disinfecting of cutting tools between trees and cuts to be treated with tree wound dressing.

2.04.0 PRUNING OBJECTIVES

2.04.1 Maintenance Pruning: Recommended when the primary objective is to maintain or improve tree health and structure, and includes risk reduction pruning.

CAMPUS TREE CARE PLAN

2.04.2 Risk Reduction Pruning: Recommended when the primary objective is to reduce overall tree risk and chance of limb or tree failure.

2.05.0 PRUNING TYPES

2.05.1 Crown Cleaning: The selective removal of one or more of the following items: dead, dying or diseased branches, weak branches and water sprouts.

2.05.2 Crown Thinning: The selective removal of branches to increase light penetration, air movement and to reduce weight.

2.05.3 Crown Raising: The removal of lower branches to provide clearance.

2.05.4 Crown Reduction or Shaping: Decrease the height and/or spread of a tree. Consideration should be given to the ability of the species to sustain this type of pruning.

2.05.5 Vista Pruning: The selective thinning of framework limbs or specific areas of the crown to allow a view of an object from a predetermined spot.

2.05.6 Crown Restoration: Should improve the structure, form and appearance of trees that have been severely headed, vandalized or storm damaged.

2.06.0 CAMPUS CLEARANCE

RECOMMENDATIONS

2.06.1 All trees and/or branches in or around infrastructure shall be shortened or removed when necessary to prevent damage to infrastructure or tree.

2.06.2 Growth on the tree should be directed away from infrastructure such as buildings light poles power lines and signs by reducing and/or removing limbs on that area of the tree.

2.06.3 Vertical clearance for roads shall be in accordance with RGV city code Section 6-3-25 and provide a minimum clearance of 14 above street level. An 8-foot vertical clearance shall be provided for pedestrian walkways.

2.06.4 Building Clearance: Clear all branches and foliage in contact with or within 2 foot of roofs, walls, stairways, decks or other building appendages to the extent feasible while maintaining aesthetics and canopy structure. Prune to direct growth parallel to or away from the building.

2.06.5 Exceptions will be made in instances that operations will eventually hinder the structural integrity of the tree or clearly cannot conform to ANSI A300 standards.

2.07.0 PROHIBITED PRUNING ACTS

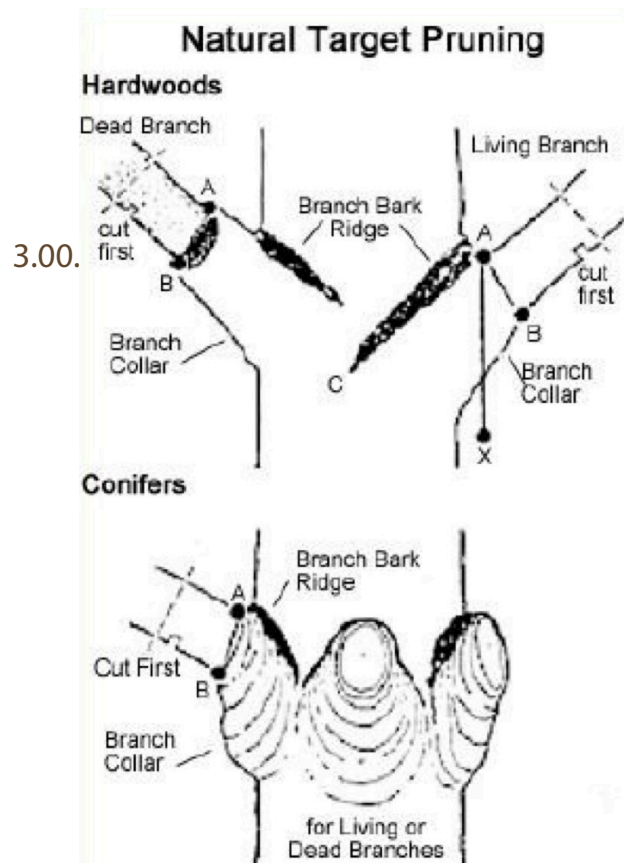
2.07.1 Excessive Pruning: Except for clearance of utility lines, traffic or abating a public nuisance, excessive pruning will not be tolerated.

2.07.2 Topping: Topping is the indiscriminate cutting of tree branches to stubs or lateral branches that are not large enough to assume the terminal role. Other names for topping include “heading,” “tipping,” “hat-racking,” and “rounding over.”

2.07.3 “Lion Tailing”: Excessive removal of branches from the lower two-thirds of a stem or branch.

2.07.4 No pruning of a tree’s canopy shall take place to compensate for removal or damage to its root system.

2.07.5 No cavities shall be filled with any substance (except in instances of bee hive relocations)



CAMPUS TREE CARE PLAN



3.01.0 Projects on UTRGV shall adhere to specifications based on the most recent editions of the following for tree removals:

3.01.1 American National Standards Institute (ANSI) A300 – 01 Pruning

Standards 2008(R2015)

3.01.2 ANSI Z133.1 Safety Standards

3.01.3 Related ISA Best Management Practices (BMP's)

3.02.0 A CAMPUS TREE SHALL NOT BE REMOVED WITHOUT UNIVERSITY REVIEW AND APPROVAL.

All removals as a result of a development project or campus operations shall follow the specifications in section 5.00 of UTRGV – Tree Preservation and Protection, Standards and Specifications. Any tree removed for campus operations will likely be dead or a risk to the university. These tree locations will be made available for new trees planted by Landscape Services (Arbor Day, memorial trees, etc.).

3.03.0 TREES MAY BE REMOVED IF:

3.03.1 A tree is infected with an insect or disease and its removal is recommended practice to prevent transmission.

3.03.2 The tree is creating an extreme nuisance because of its species, size, location, or condition. The nuisance could be caused by fruit or seed drop, harboring insects, root conflicts and excessive twig or limb breakage.

3.03.3 The tree is posing a severe safety risk that cannot be corrected by pruning, transplanting or other treatments. Tree risk assessments (per the ISA Tree Risk Assessment Qualification ANSI A300-09 Tree Risk Assessment (2011)) should be performed as needed for significant trees.

3.03.4 The tree severely interferes with growth and development of a more desirable tree.

3.03.5 The tree's aesthetic value is so low that the site would be enhanced visually by the removal of the tree.

3.03.6 Any construction, improvements, or maintenance to be made around the tree would substantially interfere with the tree's natural growth and size or would damage or destroy it.

3.03.7 The tree has been topped or disfigured thus producing an unsound branching structure conducive to severe storm damage, wind throw and accelerated death.

4.00.0 PLANT HEALTHCARE (PHC) FOR TREES

4.01.0 A Soil Analysis shall be done when prescribing soil amendments and fertilizer for trees.

4.02.0 The application of pesticides shall be done by a Texas Department of Agriculture (TDA) licensed applicator, and the products must be labeled to target the desired pest. All applications shall be logged and recorded per TDA rules. All pesticide recommendations must come from an ISA certified arborist.

4.03.0 Tree Growth Regulators (TGR) must be applied by a TDA licensed applicator, and be used only as the label states. Special considerations are for trees in overhead utility corridors or smaller grower spaces, and trees growing in reduced soil volumes.

4.04.0 Soil Health is critical to the survival of trees at UTRGV. Several tactics are used to improve the soils where trees grow. These include incorporating various types of compost and other forms of organic matter (via soil injection or air-tillage), such as bio-char, mycorrhiza fungi, and humate. Fertilizers and fungicides are used only as a last resort where timing and condition of the tree are of utmost importance.



CAMPUS TREE CARE PLAN



G. GOALS AND TARGETS

All campus trees are inventoried every five years for quantity, health, and value. UTRGV Data Information Systems Center (DISC) worked with UTRGV's biology department in assisting the urban forestry team to physically tag trees while recording GPS points for GIS mapping. Using the experience of the first tree inventory on the Edinburg campus, UTRGV's goal is to expand the tree inventory process to other UTRGV campuses and subsidiary locations.

I. TREE INVENTORY

A digital tree inventory covering the core campus has been developed. When the data is placed on a web-based server, updates will be performed by the Assistant Director for Facilities Programs and Services, participating Forestry professor(s), or future designated campus arborist. Every five years, a tree inventory will be done. The inventory will be carried out in an interdisciplinary manner that will also work as a service learning project. A graduate student, approved by the Campus Tree Advisory Committee, will be chosen to lead a student work force to inventory the trees. As of September, the data is stored locally on a Facilities Planning and Operations computer. The inventory may be used for campus planning purposes, tree management, academic and general public read-only access.

The inventory includes:

1. Tree species
2. Tree tag numbers
3. Maintenance types
4. Maintenance timeline
5. GPS points
6. Hazards
7. Priority Tasks
8. Dimensional data if able

II. TREE CANOPY AND CAMPUS MASTER PLAN

- a. Increasing the campus tree canopy is an important component, as noted in the University Sustainability Campus Action Plan (SCAP).
- b. Every five years, the plan should be reviewed by the Campus Tree Advisory Committee. Any revisions should be approved by majority vote.



GPS map showing every tree tagged with a GIS point and catalogued during the first Campus Tree Inventory. Every tree is physically labeled with a metal numbered tag.

H. TREE DAMAGE ASSESSMENT

The tree inventory will assess the state of all trees on campus every five years. In case of sudden and widespread damage, higher profile trees are assessed by an outside consultant and assessment on low profile trees is performed via the Campus Tree Advisory Committee. Enforcement of protection measures is performed by project managers and on-site engineers.

- a. In accordance with the budget, removed trees will be replaced to restore structure of the habitat.
- b. If tree is of high value, replanting the tree in a new area should be considered.
- c. Trees of low value, unsalvageable or of poor health should be removed.

I. PROHIBITED PRACTICES

I. BIKE LOCKING

Detailed UTRGV Department Parking and Transportation policies can be read here:

<http://www.utrgv.edu/files/documentstransportation/utrgv-parking-rules-and-regulations.pdf>

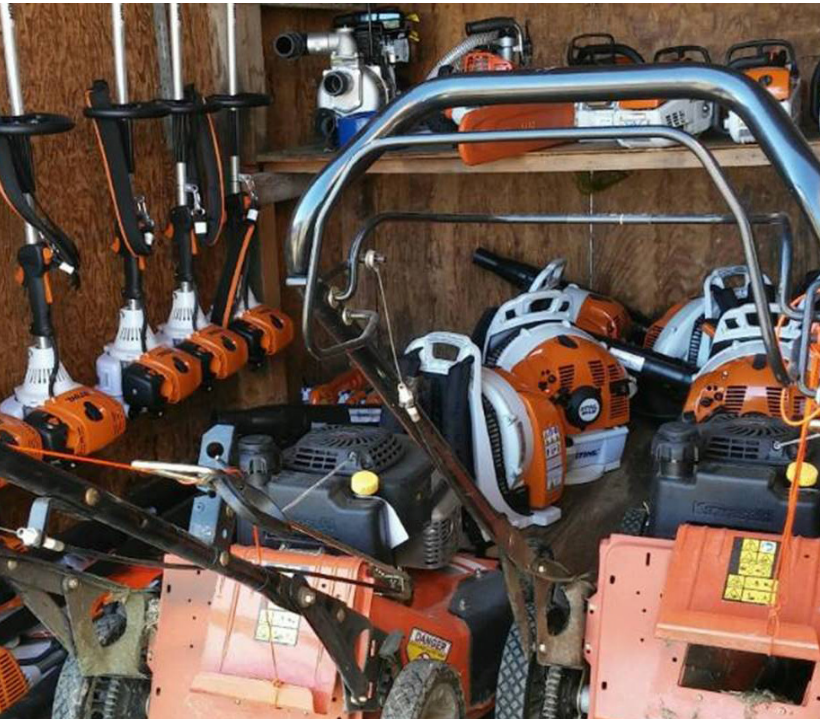
- a. Vehicles shall not park in a manner that inflicts damage to shrubbery, trees, grass, grounds or structures.
- b. Motorcycles, Motor Scooters, Mopeds and Motor- Assisted-Bicycles shall NOT be parked by or otherwise secured to trees.
- c. Bicycles MAY NOT be secured to any tree, shrub or plant. Bicycle racks are placed at strategic points on campus.
- d. Bicycles parked or secured to trees and landscaping will be immobilized or impounded.



J. COMMUNICATION STRATEGY

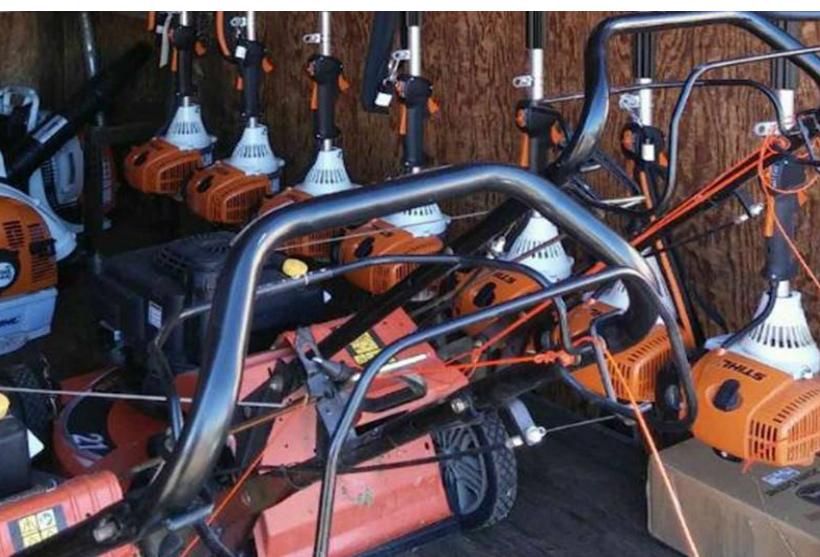
Currently, the tree protection guidelines are communicated to project managers for inclusion in to project specifications. The tree preservation categorizing process is used by the office of the University Architect for building siting and campus master planning. Upon official adoption, the plan will be shared by the Office for Sustainability in an effort to educate the campus by utilizing all means of campus communication. Effective means of getting the word out include OFS website, the UTRGV community student newspaper, and links on the website of the Office of Facilities Planning and Operations.

STANDARD 3



New equipment includes:

- | | |
|------------------------------------|------------------------------|
| 1) 3 wheelers | 13) 1-31.4cc ext. Hedge Trim |
| 2) 3 Hedge trimmer double edge | 14) 2-LM21 classic, SP |
| 3) 2 Back pack blowers | 15) 5-31.4CC 4-stroke w/25 |
| 4) 2 BHP | 16) 4 trimmers |
| 5) 5 Superedes rapid micro comford | 17) 14 weed eaters |
| 6) 8-12" picco supersedes | 18) 7 blowers |
| 7) 5-14" picco supersedes | 19) 6 chain saws |
| 8) 5-16" picco supersedes | 20) 2 pumps |
| 9) 2 Edger blades 10" | 21) 2 long trimmers |
| 10) 1-36.3CC W/12 Ext prune | 22) 3 extension scissors |
| 11) 1-12" w/ez 23.6cc single pack | 23) 2 lawn mowers |
| 12) 1-31.4cc ext. Hedge Trim | |



CAMPUS TREE PROGRAM WITH DEDICATED ANNUAL EXPENDITURES

For a college campus, to be designated a Tree Campus USA, it must allocate finances for its annual campus tree program. Evidence should be shown that an annual work plan has been established and expenditures dedicated towards that work plan.

It is suggested, but not mandatory, that campuses work towards an annual expenditure of \$3 per full-time enrolled student. The national average among recognized Tree Campus USA colleges and universities is currently \$9 - \$11. Expenditures may take place on or off campus, as in the case of an urban campus that does not have room to plant or care for trees on their own campus but works with a nearby elementary school to plant and care for the trees there.

PROPOSED DEDICATED ANNUAL EXPENDITURES 2017 - 2018

Tree Planting & Initial Care:

Tree Purchases & Labor	\$20,000.00
Equipment	\$4,000.00
Equipment Maintenance	\$1,200.00
Planting Materials	\$5,000.00
Education	\$1,000.00

Campus Tree Management:

Pruning	\$15,000.00
Pest Management	\$2,000.00
Fertilization	\$2,000.00
Tree Removal	\$7,044.00
Tree Relocation	\$46,000.00

Total **\$103,244.00**

"THE STRUCTURAL VALUE OF UTRGV TREES -THE MAJORITY OF WHICH ARE LIVE OAKS AND MEXICAN FAN PALMS- IS NEARLY \$5,735,000."

-JORGE CANTU, GRADUATE STUDENT RESEARCH ASSISTANT , 2014

2015 SUMMARY DEDICATED ANNUAL EXPENDITURES

Tree Planting & Initial Care:

Tree Purchases	\$40,000
Labor	\$52,000
Labor Contract	\$15,000
Equipment	\$25,000
Equipment Maintenance	\$ 1,500
Planting Materials	\$ 4,000

Campus Tree Management:

Pruning	\$ 20,000
Public Education	\$ 3,000
Professional Training	\$ 2,500
Association Membership	\$ 0
Camps Tree Inventory	\$10,000
Pest Management	\$ 0
Fertilization	\$ 2,000
Tree Removals	\$ 5,000

Total **\$190,000**

2016 SUMMARY DEDICATED ANNUAL EXPENDITURES

Tree Planting & Initial Care:

Tree Purchases & Labor	\$38,347.00
Equipment	\$5,556.00
Equipment Maintenance	\$1,820.00
Planting Materials	\$9,884.59
Education	\$449.00

Campus Tree Management:

Pruning	\$4,920.00
Public Education	\$0
Professional Training	\$0
Association Membership	\$0
Camps Tree Inventory	\$0
Pest Management	\$2,000.00
Fertilization	\$1749.51
Tree Removal	\$1,760.00
Tree Relocation	\$17,500.00

Total **\$83,987.00**



THE FY16 AVERAGE STUDENT ENROLLEMENT OF 27,607 (X) THE RECOMMENDED \$3 STUDENT EXPENDITURE EQUALS \$82,821. WITH THE ABOVE DEDICATED EXPENDITURES, UTRGV SURPASSED THE RECOMMENDED YEARLY EXPENDITURES FOR PARTICIPATION IN TREE CAMPUS USA.

STANDARD 4



An Arbor Day observance provides a golden opportunity to educate the campus community on the benefits of the trees on their campus property and in the community. The Arbor Day observance can be on the campus or held in conjunction with the community where the campus is located. Your event may be held at an appropriate time for your campus. Evidence recording that the observance will be presented in special events that includes program of activities, news coverage, and/or pictures.

ARBOR DAY OBSERVANCE



Above: New trees were planted on campus by community members, students, administrators, faculty and staff in honor and celebration of our third Tree Campus USA and the Arbor Day observance held on December 6, 2016. The event also provided the opportunity for UTRGV to recognize and thank the wonderful team at Facilities Planning and Operations without whom we would not have the picturesque grounds and beautiful trees that we have on campus. We believe we have the “best of the best” team who care for our grounds year round.

TREE PLANTING CEREMONY



Executive Vice President for Finance and Administration Rick Anderson spoke at the tree planting ceremony celebrating UTRGV's Tree Campus USA designation.

PROCLAMATION

UTRGV ARBOR DAY CELEBRATION
NOVEMBER 09, 2016

WHEREAS, In 1872, J. Sterling Morton proposed to the Nebraska Board of Agriculture that a special day be set aside for the planting of trees; and,

WHEREAS, This holiday, called Arbor Day, was first observed with the planting of more than a million trees in Nebraska, is observed locally, the nation, and throughout the world; and,

WHEREAS, Pursuant to the U.S. Conference of Mayors Climate Protection Agreement, unanimously adopted by the City of Edinburg on July 15, 2008, the City is committed to maintaining a healthy urban forest and promoting tree planting to increase shading, absorb CO₂, decrease the associated costs of unshaded storm-water, lower heating & cooling costs, and provide habitat for urban wildlife; and,

WHEREAS, The City of Edinburg is continuing to demonstrate its commitment to trees by conducting ongoing tree planting projects along City rights-of-ways, medians, parks, other City properties, as well as, the ongoing Downtown Revitalization effort; and,

WHEREAS, In keeping with City of Edinburg's tree planting initiatives under the guidance of the City Forester, and in cooperation with the Mayor, City Council, City Management, and Parks and Recreation, the City, along with its UTRGV partner, will be celebrating an Arbor Day Festival on Wednesday November 09, 2016 with a Tree Planting ceremony taking place on the Edinburg campus of UTRGV; and,

WHEREAS, In keeping with the tradition of the Arbor Day celebration UTRGV has received notice that it's Edinburg campus has received the prestigious award designation known as "Tree Campus USA";

NOW, THEREFORE, I, RICHARD H. GARCIA, MAYOR OF THE CITY OF EDINBURG, TEXAS; By the power vested in me by law, do hereby issue the Proclamation Recognizing November 09, 2016 as

ARBOR DAY

for the Edinburg campus of UTRGV, and I urge all Citizens to celebrate Arbor Day by planting and caring for trees, and supporting the efforts to protect our trees, thus promoting the well-being of this and future generations.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the City of Edinburg, Texas a Municipal Corporation, to be affixed on this 9th day of November, 2016.

CITY OF EDINBURG, TEXAS

By: Richard H. Garcia, Mayor

ATTEST:

By: Myra L. Ayala Garcia, City Secretary



Edinburg Prospers because of the Spirit of its People

ARBOR DAY OBSERVANCE

The Arbor Day Foundation named UTRGV Edinburg Campus as a 2016 Tree Campus USA university for a third year for its commitment to effective urban forest management and by engaging the campus community in environmental stewardship. UTRGV, home to more than 2,000 trees, celebrated its own Arbor Day observance on Dec 6, 2016, in honor of its Tree Campus USA designation. Events kicked off with the tree planting ceremony and the participants planting two donated trees by the City of Edinburg at the Chapel Lawn in Edinburg. City officials from Edinburg, McAllen, Pharr, and Brownsville presented proclamations at the events that will commit each city to build more sustainable and tree friendly community.

City of Edinburg Proclamation

ARBOR DAY OBSERVANCE



A Bluewood (Brasil) was planted on campus by community members, students, administrators, faculty and staff at UTRGV Arbor Day 2016.

The Arbor Day celebration promoted the significance of trees and provided the public an opportunity to reflect on the many spiritual and concrete benefits they provide. Tree Campus USA is a national program created in 2008 by the Arbor Day Foundation and sponsored by Toyota, USA. The university achieved the title by meeting Tree Campus USA's five core standards of tree care and community engagement: establishing a campus tree advisory committee, having a campus tree-care plan, verifying dedicated annual expenditures on the tree-care plan, being involved in an Arbor Day observance, and instituting a service-learning project aimed at engaging the student body.

THE UNIVERSITY OF TEXAS RIO GRANDE VALLEY HAS BEEN PLANTING TREES SINCE ITS INCEPTION IN 1927. THE PURPOSEFUL OBSERVANCE OF ARBOR DAY ON CAMPUS WAS ESTABLISHED WITH THE FOUNDING OF THE OFFICE FOR SUSTAINABILITY IN 2009.



City of McAllen



Proclamation

STATE OF TEXAS
COUNTY OF HIDALGO
CITY OF McALLEN

WHEREAS, in 1872, J. Sterling Morton proposed to the Nebraska Board of Agriculture that a special day be set aside for the planting of trees. This holiday, called Arbor Day, was first observed with the planting of more than a million trees in Nebraska, is observed locally, the nation, and throughout the world; and

WHEREAS, pursuant to the U.S. Conference of Mayors Climate Protection Agreement, the City of McAllen is committed to maintaining a healthy urban forest by promoting tree planting, absorb CO₂, decrease the associated costs of unabated storm-water, lower heating and cooling costs, and provide habitat for urban wildlife; and

WHEREAS, the City of McAllen continues its commitment to trees by conducting ongoing tree planting projects in city owned parks, city right-of-ways, medians, other city properties along with training and development in conjunction with its partnership with The University of Texas Rio Grande Valley; and

WHEREAS, City of McAllen's tree planting initiatives under the guidance of the City Forester, and in cooperation with the Mayor, City Council, City Management, and Parks and Recreation, the City, along with its partner The University of Texas Rio Grande Valley, will be celebrating an Arbor Day Festival on Wednesday, November 9, 2016 with a Tree Planting ceremony taking place on the campus of the new University of Texas Rio Grande Valley; and

WHEREAS, in keeping with the tradition of the Arbor Day celebration The University of Texas Rio Grande Valley has received notice that it's Edinburg campus has received the prestigious award designation known as "Tree Campus USA"; and

WHEREAS, the City Commission urges all Citizens to celebrate Arbor Day by planting and caring for trees, and supporting the efforts to protect our trees, thus promoting the well-being of this and future generations;

NOW THEREFORE, I, Jim Darling, Mayor of the City of McAllen, Texas by virtue of the authority vested in me and on behalf of myself and the City Commission, do hereby proclaim December 6, 2016, as:

"University of Texas Rio Grande Valley Arbor Day"

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the City of McAllen to be affixed on this 6th day of December, 2016.

ATTEST:
Perla Lara, TRM/CMC, CFM
City Secretary

Jim Darling
Jim Darling, Mayor



City of McAllen Proclamation

STANDARD 5



SERVICE LEARNING PROJECTS

The Service Learning Projects is an outreach of the spirit of the Tree Campus USA initiative. This project should provide an opportunity to engage the student population with projects related to trees and can be part of a campus or community initiative. The project must be done within the course of the application.

Aside from Earth Fest, UTRGV engages the community with urban forestry activities and events throughout the year, such as HESTEC, FESTIBA, and Rio Reforestation. Opportunities for student participation in these events are made possible through the collaboration of the Office for Sustainability, the Department of Biology's Environmental Science program and Agroecology program, the Department of Community Engagement, the U.S. Department of Agriculture, and Texas Forest Service.

PROJECT IDEAS INCLUDE, BUT ARE NOT LIMITED TO:

- Volunteer tree plantings or tree maintenance
- Tree inventory (campus or community)
- Establish a Nature Explore Classroom for young children at an early childhood development center on your campus or in your community.
- Establishment of campus arboreta
- Student-led effort to have community designated a Tree City USA
- Coordinate internships with the urban forestry or parks department in your community
- Assist Project Learning Tree or other programs centered around trees in training teachers at schools near your campus or organize training for your school's College of Education
- Other tree-related service learning or educational programs for students
- Partnership with state forestry departments on regional projects



SERVICE LEARNING PROJECT 1



LYNCHBURG NEIGHBORHOOD

JANUARY, 16, 2016

The University of Texas Rio Grande Valley (UTRGV) competed with other Tree Campus USA campuses nationwide and was selected as the winner (large campus category) of the Tree Campus USA Service Learning contest sponsored by The Arbor Day Foundation and Toyota. Each university had to propose an enrichment project that would both improve the environment and serve the community. Contestants needed to also select a location for a project in an area of campus or the local community that is identified as low-to-moderate income for their service-learning project. It was a requirement that each university recipient must be a 2014 Tree Campus USA university. UTRGV competed against two other schools—the University of Alabama, Birmingham and the University of Pennsylvania—in the finals for this award.

The Tree Campus USA program recognizes college and university campuses that:

- Effectively manage their campus trees.
- Develop connectivity with the community beyond campus borders to foster healthy, urban forests.
- Strive to engage their student population utilizing service learning opportunities centered on campus, community, and forestry efforts.

Two- and four-year accredited colleges and universities must meet five standards developed to promote healthy trees and student involvement. These five standards include having a Campus Tree Advisory Committee, having a campus tree care plan, having a campus tree program with dedicated annual expenditures, hosting an Arbor Day observance, and having service learning projects through the year.

SERVICE LEARNING PROJECT 1

This designation is updated annually when these standards have been met. Tree Campus USA is an Arbor Day Foundation program sponsored in partnership with Toyota.

UTRGV Office for Sustainability planned an event that culminated in a tree-planting ceremony across a partnership of faculty, students, staff, community leaders, and residents. Working with city/county foresters, student volunteers from both campuses and residents planted the trees together at each home, including three for the community center/playground. Training and information included bilingual tree health guides, pruning guides, storm recovery/repair, insect problems, water conservation, and economic and community value.

The collaboration involved Proyecto Azteca, a nonprofit self-help housing program, who purchased 34 lots in the Lynchburg Subdivision, moving 32 families out of the colonias and housing authorities into energy efficient, affordable homes they helped build. With this project, UTRGV continues to build on the success of past partnerships in this community. The Lynchburg Neighborhood Subdivision of Edcouch, Texas is the first USGBC-LEED Silver Affordable Housing Neighborhood in South Texas and was designed embracing sustainable design through collaborative community efforts. Official Designation would be pursued on completion of all houses in the community.

Students, in this service-learning project, benefited academically, professionally, and personally by gaining hands-on learning of environmental issues, maintaining tree health, and working with diverse community values. This enabled students to act on their own values and beliefs, develop critical thinking and problem-solving skills, and serve the public good through civic participation. In addition, the students learned the interdisciplinary nature of sustainability across the different schools and programs of their current and future lives.



Aerial View Of Lynchburg Subdivision

SERVICE LEARNING PROJECT 2

UTRGV



4th Annual Texas Regional Alliance for Campus Sustainability Summit

UTRGV hosted the 4th annual TRACS summit held on South Padre Island, Texas, where 150 participants came from across Texas to this annual event.

PERMACULTURE PART I AND II

FEBRUARY 1-3, 2016



In the Permaculture Design Workshops, participants achieved a working understanding of ecologically-based planning, site design and management. The focus was on fruit-producing trees and how an integrated forest garden can be designed utilizing the teachings of Bill Mollison's Permaculture Design System.

URBAN FORESTRY - PAST, PRESENT, FUTURE

Human society has become progressively more urbanized and predictions are for the trend to continue. As society becomes more urbanized, concepts like quality of life, health, fitness, safety, and recreation are incentives for long term habitation of a particular urbanized area. Contiguous urban forests have the potential to alleviate many of the externalities of urban life. However, the current practice of the urban forestry predominately focuses on individual tree care, tied closely with the science of arboriculture. By not fully understanding the history, establishment, and importance of large contiguous urban forests, the ever-increasing urban areas of the future will be significantly void of these large contiguous forests, decreasing the effectiveness of urban areas and will reduce the quality of life for urban dwellers.





COASTAL EXPO

FEBRUARY 12, 2016

The City of Edinburg and the Texas Parks & Wildlife brought the Rio Grande Valley Coastal Expo back to the Edinburg Scenic Wetlands and World Birding Center. The Coastal Expo is a free, fun, and educational hands-on event that teaches children in grades 1 through 6 about coastal ecosystems, South Texas wildlife, and outdoor adventures. The event was designed to bring the coast, its associated ecology, and the wonders of the Rio Grande Valley to youth, especially those that may not have access to it otherwise. Using numerous hands-on stations, nature walks and skills training, organizers introduced children to the phenomenal world and exploration of the Texas coast and river basin.

In addition, UTRGV CTAC member and city forester, Ed Kuprel gave out native tree seedlings, talked about the importance of trees, and how to plant and take care of them for the future. More than 3,000 students from across the Rio Grande Valley participated in this year's event. UTRGV OFS volunteers helped educate and inform elementary students about the length of time it takes for trash to decompose in water. Students were able to visually see and participate in the educational activity.



SERVICE LEARNING PROJECT 4



ITCC SAN ANTONIO INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) INTERNATIONAL TREE CLIMBING CHAMPIONSHIP (ITCC), SAN ANTONIO APRIL 1-3, 2016

In beautiful Brackenridge Park along the San Antonio River, complimented by great weather, the ITCC with the Arbor Fair and Expo enabled attendees to learn more about the professional practice of arboriculture and the importance of proper tree care. Since 1976, the ITCC has grown and expanded providing new opportunities to promote safety and engage the public. It provided opportunities for networking and membership, credentialing, education, and public awareness. A member of the UTRGV Campus Tree Advisory Committee (CTAC), Mr. Erick Palacios, certified forester, participated in this event as a volunteer and representative of the Rio Grande Valley.



SERVICE LEARNING PROJECT 5

NATIONAL BUTTERFLY CENTER TRAINING & BUTTERFLY GARDEN

MARCH 2 & 9, 2016

Max Munoz, Grounds Manager for the National Butterfly Center (NBC) in Mission, Texas, provided training for the care and maintenance of butterfly gardens on the UTRGV campuses. Students, staff, and faculty attended the trainings (held March 2, 9, and April 27) to learn about the life cycle of butterflies and how trees and vegetation support it. Nearly 150 species of North American butterflies can be seen only in the Lower Rio Grande Valley (LRGV) of Texas. In fact, more than 300 species of butterflies may be found in the LRGV. Each stage of development depends on a different type of vegetation. Butterflies in their stages of development need host trees, shrubs, vines, annuals, and perennials to provide food, water, and shelter.

After each training session, Mr. Munoz, UTRGV Facilities Landscape and Grounds staff, and members from the Office for Sustainability lead participants in replenishing older campus gardens (i.e., Veteran's Memorial) and in building new gardens on the Edinburg campus. Native tree and plant species were used including ebony trees planted in the Veterans Memorial garden.



SERVICE LEARNING PROJECT 6

VETERANS MEMORIAL

APRIL 27, 2016

Members of the UTRGV student body, faculty, and staff attended this replanting of the Veteran's Memorial Garden, to make it a more reflective space that would also attract butterflies and other fauna. The National Butterfly Center offered butterfly and garden maintenance training prior to the planting. This garden project was the second of the year to make the UTRGV campus more hospitable to local and migrating butterflies.



UTRGV's Legacy Institution UTPA Veterans Memorial Garden plaque

SERVICE LEARNING PROJECT 7



MCALLEN ARBOR DAY

MARCH 12, 2016

UTRGV, in collaboration with the City of McAllen and City Forester Clifford Hawkins, commemorated the fifth anniversary of the McAllen Arbor Day Celebration on Saturday, March 12, 2016. The event included a fun-filled day in which individuals participated in a timed 5K or 10K run, a family-fun-walk along the Hike & Bike Trail and 25-mile bike tour for those who wanted to take a challenge. In addition, city forester Clifford Hawkins spoke about planting and caring for trees celebrating nature's gift of trees, the tall providers of shade, fruit, fun, and habitat for many different kinds of wildlife. During this celebration, residents could come out and make a difference in helping to establish a dedicated tree-planting fund for McAllen.

SERVICE LEARNING PROJECT 8

QUINTA MAZATLÁN & UTRGV COLLABORATION

MAY 25, 2016

UTRGV, the City of McAllen, and Quinta Mazatlán announced a new partnership to expand educational opportunities in the areas of youth education, economic development, urban forestry, and tourism in South Texas. This partnership will open doors to unique learning opportunities for UTRGV students by expanding access to high-quality education and providing support for student success. In addition, supporting academic and research experiences at Quinta Mazatlán will provide students with experiential learning opportunities that will increase their likelihood of successfully transitioning into the job market or graduate school. A strategic plan is under development by UTRGV and Quinta Mazatlán, with its advisory board (Friends of Quinta Mazatlán) that will focus on a wide variety of initiatives to expand environmental, educational, and tourism opportunities in South Texas. Representing the university are Dr. Havidán Rodríguez, UTRGV Provost and EVP for Academic Affairs; Veronica Gonzales, UTRGV VP for the Governmental and Community Relations; Dr. Alexis Racelis, Director of the UTRGV Biology program and member of the CTAC; and Dr. Parwinder Grewal, Dean of the UTRGV College of Sciences signed a memorandum understanding the importance of these components in the Rio Grande Valley.



EARTH FEST

APRIL 21, 2016

UTRGV hosted Earth Fest 2016, an annual celebration that commemorates National Earth Day (April 22). The attendance for the entire event was estimated at 1,750 participants. The theme this year was climate change and its impact on human health, biodiversity, global food security, and our coastal lines. The open event included a speaker forum, arts and crafts exhibits, exhibitors, live music, giveaways, dinner-and-a-movie, and was held on the Edinburg, Harlingen, and Brownsville campuses. The objective of these events were to educate the public on the importance of environmental stewardship and the mutually beneficial relationships between the society, the economy, and the environment. UTRGV Office for Sustainability and the Department of Campus Facilities Operations also sponsored a campus scavenger hunt in which individuals or teams had to find and identify our campus trees. The first teams were awarded a tree to plant in their gardens. The film series, *Years of Living Dangerously: A Dangerous Future*, featuring Matt Damon was shown on all UTRGV campuses with a dinner and a movie event. Friday night, the UTRGV Vaqueros Baseball Team and the Environmental Awareness Club hosted a trash-fashion runway, featuring garments made of recycled, repurposed goods.

Dr. Havidán Rodríguez, Provost and EVP for Academic Affairs welcomed attendees to the events on all campuses. Masters of Ceremonies included communication and public relations consultant Miss Adriana Treviño (university alum) and 2016 Miss Texas Belleza Latina, Miss Jacqueline Lopez (UTRGV student).

Speakers included Dr. Robert Forbis, Texas Tech University assistant professor of Political Science; Dr. Irasema Coronado, UT El Paso professor of Political Science; and Dr. Owen Temby, UTRGV Assistant Professor of Political Sciences. Key sponsors included AT&T, HEB, and Coca Cola. Students Arley Villanueva won the grand prize (television) and Lucas Gomez and Veronica Gonzalez both won Coca Cola bicycles.



Eric Delgado presented the scavenger hunt winner Laura Santos

SERVICE LEARNING PROJECT 10

PORT ISABEL HOUSING AUTHORITY TREE PLANTING, APRIL 28, 2016

UTRGV (a Tree Campus USA institution) and Valley Proud Environmental Council (an Alliance for Community Trees/ACT member) received an Arbor Day Foundation and ACT Award of \$1,000 to partner and host a tree planting community event and service learning opportunity. UTRGV staff, students, and volunteers staffed the event and assisted families in planting the trees.

This community event included the Texas A&M Master Gardeners as a partner and was held on Thursday, April 28, 2016, at the Port Isabel Housing Authority Community Gardens. Trees were donated by Texas A&M AgriLife Extension through a partnership with Valley Proud Environmental Council and included seven fruit trees which were planted (avocado, mango, papaya, cherry, apple, lemon and guava). Valley Proud provided tree planting and care pamphlets in both English and Spanish for each household. Mr. Scott Kunkle, Texas A&M AgriLife Extension, spoke on the importance of trees and how to care for them. Over 100 children from of the Laguna Madre Boys and Girls Club and Port Isabel Housing Authority families participated in the event.

In addition, every child received a tree seedling as well as instructions on how to care for them. After the training and planting, Valley Proud's mascot, Captain Crab, and their puppeteers "entertained" the children. The outcomes showed that our attendees were genuinely interested in taking initiative and committing to action regarding the information given. The children expressed a variety of gains including resource materials and ideas to try immediately.



SERVICE LEARNING PROJECT 11



Lower Rio Grande Valley National Wildlife Refuge



RIO REFORESTATION, OCTOBER 15, 2016

Ninety-five percent of the native habitat in the Rio Grande Valley is gone, according to the U.S. Fish and Wildlife Service. To help restore the lost land to its natural glory, hundreds of volunteers spent the better half of their Saturday giving back in hopes of building a new future to the Valley's wildlife and celebrate the 25th Anniversary of Rio Reforestation. More than 1,000 volunteers of all ages picked up a shovel, and made their way to the Lower Rio Grande Valley Wildlife Refuge at the Milagro Tract to plant seedlings. UTRGV recruited many students and staff who assisted in planting native trees and shrubs in Pharr, helping to create habitat for wildlife. Volunteers covered 23 acres with the goal of planting 14,000 native seedlings. So far, the Rio Reforestation has planted 670 acres with about 235,000 seedlings.

SERVICE LEARNING PROJECT 12

TREE CARE WORKSHOP & URBAN FORESTRY SEMINAR JULY 27, 2016

The South Texas Tree Council and local city foresters held a Tree Care Workshop and Urban Forestry Seminar on July 27, at the Library Media Center at UTRGV. The seminar informed students, faculty, staff, and members of the community about how they can help maintain healthy urban trees and increase their resource value with careful management.



Dr. David Appel, Professor of Plant Pathology and Biological Control with Texas A&M University and Program Leader of the Department of Plant Pathology and Microbiology laboratory, spoke about his expertise in the epidemiology of tree diseases in a talk entitled, "Tree Mortality Spiral-- Identification and Management of Common Tree Diseases and Replanting Techniques." A member of his staff, Sheila McBride, demonstrated how to take a field sample and get the correct information to their laboratory located on the Texas A&M university campus at College Station so that a correct diagnosis can be made quickly.

In addition, Mark Kroeze, City of San Antonio Urban Forester, also discussed the importance of using native and well-adapted, drought tolerant trees suited to the south Texas urban environment.

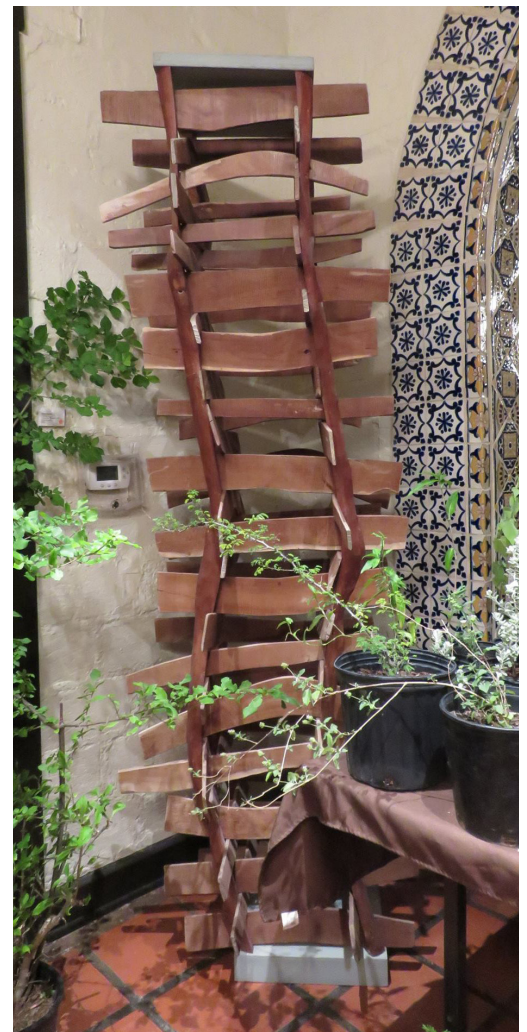
SERVICE LEARNING PROJECT 13



PLANTA NATIVA

OCTOBER 22, 2016

Community and UTRGV staff attended the second annual Planta Nativa, held at Quinta Mazatlán on October 22, 2016 for a night of activities which included native plant and tree sale, food, music, and art. Planta Nativa featured the works of nine valley artists. The group art exhibition, “Arte Nativo,” included jewelry, glass, sculpture, and paintings, interpreting the central theme of South Texas natives from a variety of perspectives. Activities also included science poster presentations by UTRGV students and a book signing by Pam Penick, “Lawn Gone” and “The Water-Saving Garden.” Penick also gave a keynote presentation on “Local Heroes: Designing with Native Plants for Water-Saving Gardens.” She spoke about the benefits of planting natives and creating water-saving gardens, which included the use of trees in the design of our urban lawns. Toni and Benito Trevino were honored for promoting their passion for native plants and trees with others and helping restore native habitat.



OCT 25	HARLINGEN CAMPUS DINNER AND A MOVIE AUDITORIUM 1.100 11:00am-12:00pm
OCT 26	BROWNSVILLE CAMPUS SPEAKER GRAN SALON 11:00am-12:00pm DINNER AND MOVIE GRAN SALON 6:00pm-8:00pm
OCT 27	EDINGBURG CAMPUS SPEAKER BALLROOM 10:00am-11:30pm DINNER AND MOVIE MEDIA THEATER 6:00pm-8:00pm



UTRGV™

CAMPUS SUSTAINABILITY DAY

CAMPUS SUSTAINABILITY DAY OCTOBER 25-27, 2016

UTRGV was proud to participate in the second annual Campus Sustainability Month celebrated globally, featuring local campus events on October 25-27. The event celebrated and raised awareness of the value of sustainable development in higher education and engaged incoming students and other campus stakeholders to become leaders for sustainability. Student organizations presented their own sustainable goals alongside local community organizations during the afternoon vendor fairs. The dinner and a movie event featured an important series, *Year of Living Dangerously: Revolt Rebuild Renew*, regarding sustainable practices with Jessica Alba, actor and lead executive of The Honest Company. In addition, Edinburg city forester Ed Kuprel and McAllen city forester Clifford Hawkins, UTRGV CTAC members, gave out native tree samplings and spoke about how to plant and take care of their seedling.





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