

Florida Urban Forestry Council



Urban Forestry Institute

Stetson University, Deland, FL

March 4-6, 2020

Presentation by

Larry Koss, City of Cocoa, Tree Board Member

Florida Urban Forestry Council Website

<https://fufc.org>

Stetson University, DeLand, FL




About Florida Urban Forestry Council



The Florida Urban Forestry Council (FUFC) is a statewide, non-profit organization with a diverse membership of municipalities, arborists, utility foresters, community tree board members, tree advocates, volunteers, horticulturists, landscape professionals, and interested citizens who care about trees in their communities.



Friday, March 6, 2020 Morning Breakout Sessions


- Expanding the Canopy with Utility-Appropriate Trees
 - Power of Trees – An Utility Forester’s Point-of-View, Joe Anderson, Utility Forester – JEA (Jacksonville Electric Authority)
 - Wrong Tree, Wrong Place – David Watford, Vegetation Management Specialist SECO Energy (Sumter Electric Cooperative, Inc.)
 - Vegetation Management and Remote Sensing – Greg Polidora, Senior Vegetation Specialist – FPL (Florida Power & Light)
 - Verbal Tai Chi – Verbal P.P.E. for the Utility Arborist – Joe Anderson, Utility Forester – JEA (Jacksonville Electric Authority)
 - Energized Solutions (Panel Discussion)- Joe Anderson, David Watford, Greg Polidora, Erin Givens
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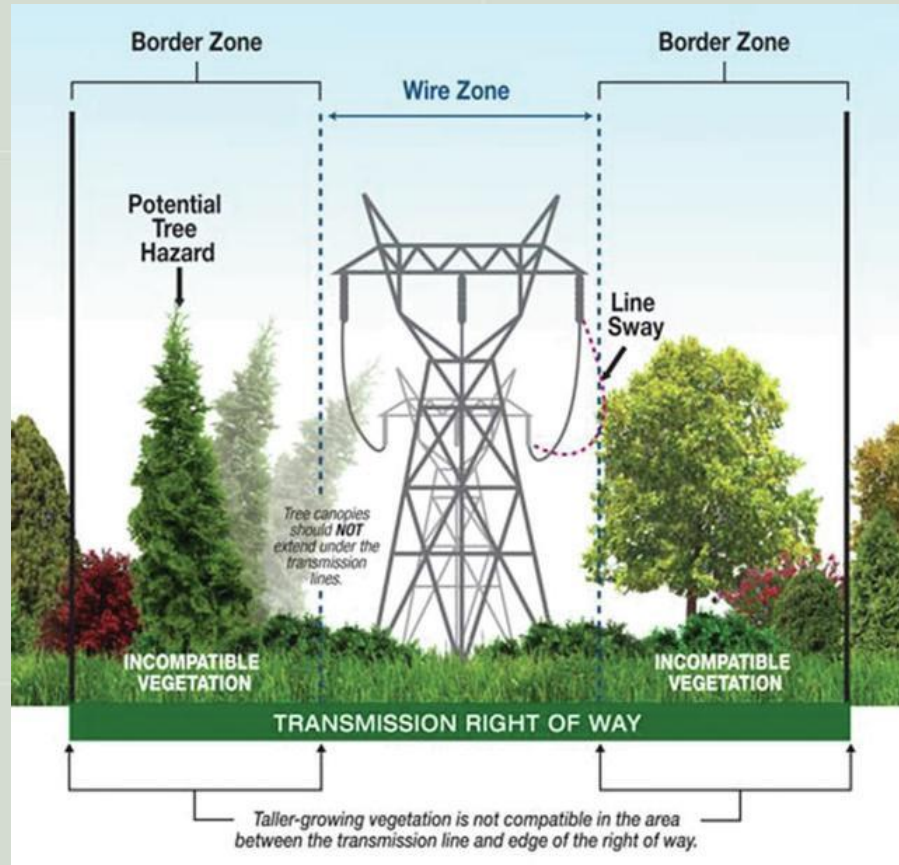
Power of Trees


Joe Anderson, Utility Forester

■ A Utility Forester's Point-of-View

- Primary task, assisting JEA to remove electrical hazards in the community.
 - Secondary task, finding solutions of conflict between trees vs. utilities.
 - Laws of physics, wood is an insulator when trees are dead, conductor when alive.
 - Distance is your friend, pruning trees prevents power outages.
 - Tree City USA, resilience and sustainable features are important for municipalities.
 - Whole Community Communication, supports an informed public and understanding.
 - Jigsaw Puzzle, Social – Political - Economics, complex but can bring people together.
 - Above vs. Below Ground challenges – Rights of Way, Roots, Branches, Economic cost.
 - City Growth, People + Budgets + Resource Tools + Developers + Builders = Team Work.
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Utility Forester






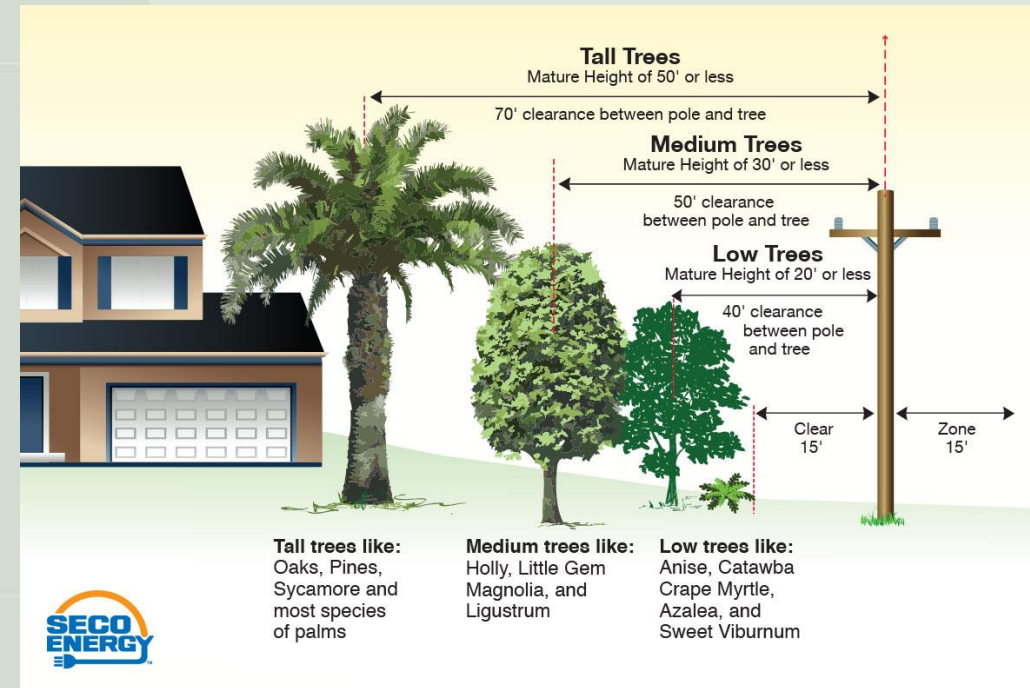
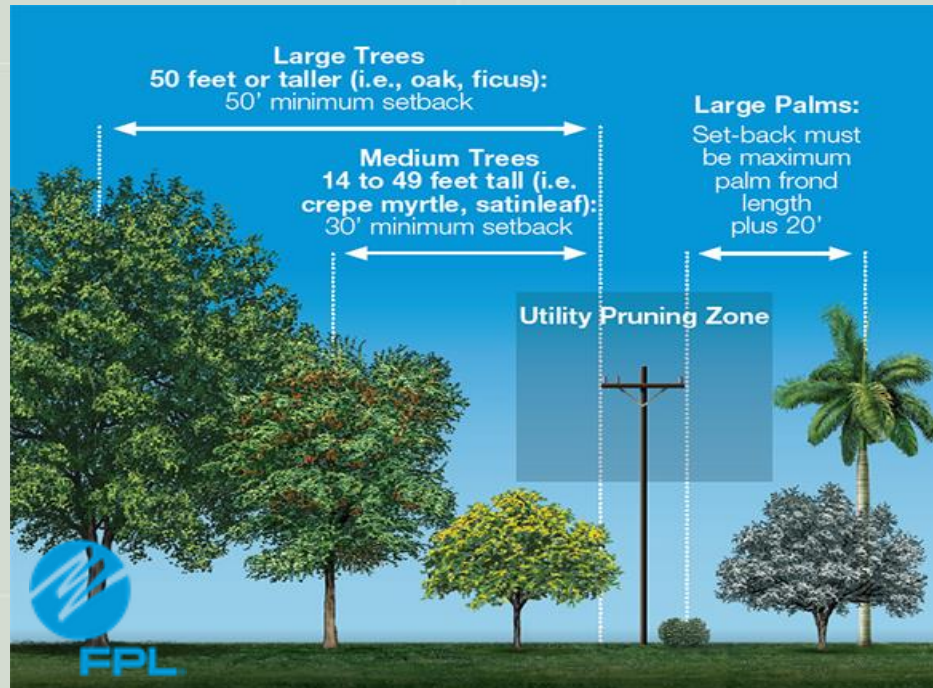
Wrong Tree, Wrong Place

David Watford, Vegetation Management Specialist

■ Alternative Methods How Utilities and Urban Forest Co-exist

- Trees and Power, trim for safety and reliability challenges customer satisfaction.
 - Cost Comparison, Cut or move trees vs. Move utilities, above or below ground.
 - Tree Policies, city ordinances – state statutes – right of way – personal property.
 - Underground power, Primary 4' – Secondary 2', 45 yrs. replacement interval.
 - Above ground power, Primary concrete, Secondary wood, 45 yrs. replacement interval.
 - Re-route Re-design, some projects installed are both underground and above.
 - Good Communications with developers and builders saves money and time.
 - Public Education, Right Tree & Right Place can prevent a lot of utility challenges.
 - Pruning Techniques, directional pruning or natural target pruning, V or C shapes.
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Right Tree, Right Place Examples







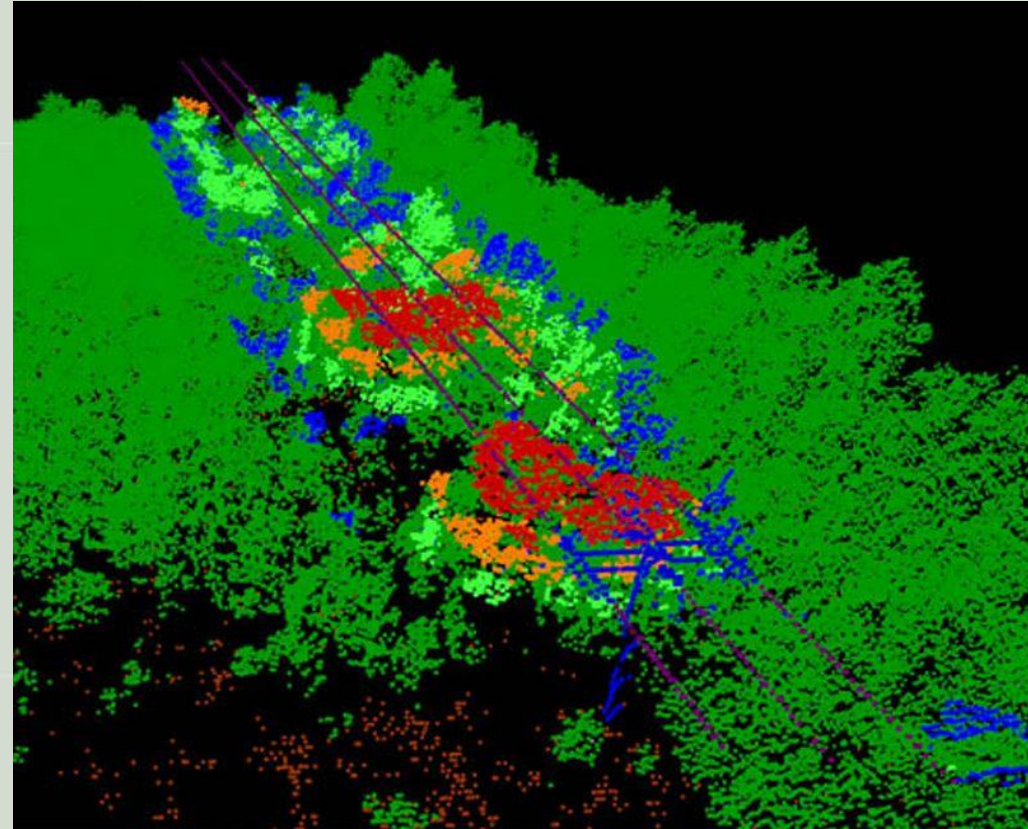
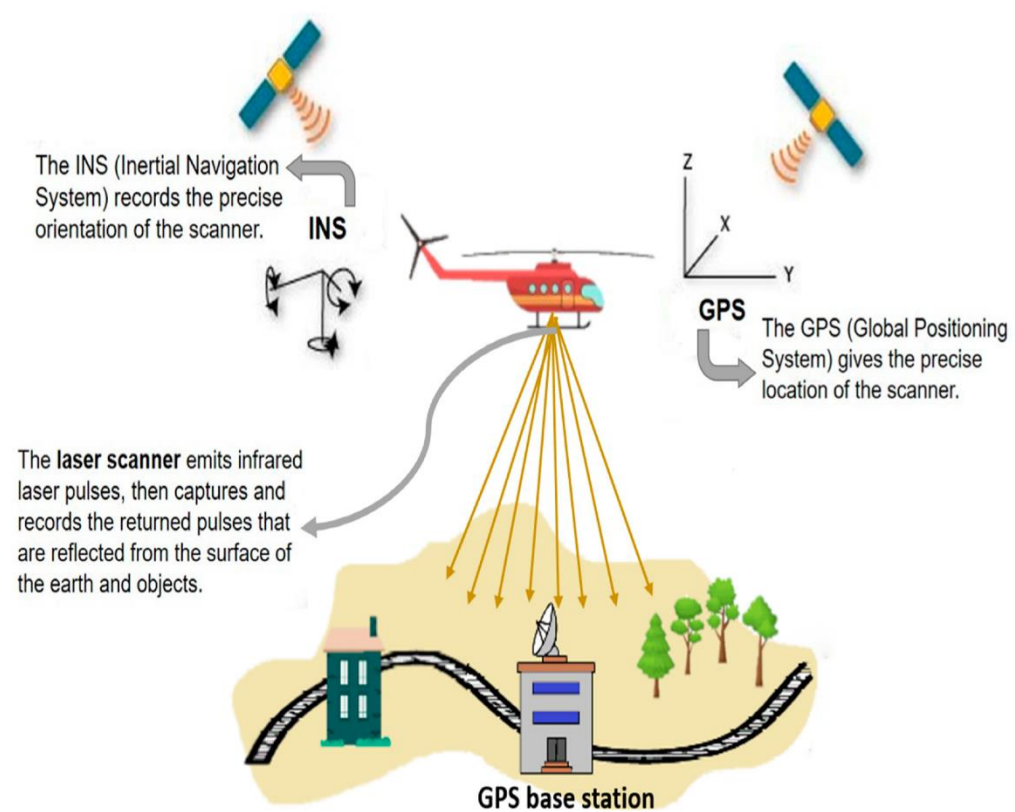
Vegetation Remote Sensing

Greg Polidora, Senior Vegetation Specialist

■ How to Increase Utility Efficiencies with Remote Sensing

- LIDAR, Light Detection and Ranging technology with Clearion Software.
 - 7,000 Miles of Transmission Lines, 5 Million Customers, NextEra Parent Company
 - Vegetation Scanning, FPL and Private Helicopters scan 4,000 miles annually.
 - Infringements depends on Voltage – Distance – Elevation – Seasons if pruning is necessary.
 - Transmission hardening work is prioritized by three levels after it has been inspected:
 - Level 1 requires immediate attention
 - Level 2 requires attention within the next year
 - Level 3 will require attention in the near future
 - LIDAR Saves money and safer than manually inspecting remote transmission power lines.
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LIDAR Examples





Verbal Tai Chi



Joe Anderson, Utility Forester

- Verbal P.P.E. for the Utility Arborist
 - Top Three Principles of Verbal Tai Chi – 1. Empathy, 2. Empathy, 3. Empathy
 - Don't listen to what they say. Instead, listen to what they mean.
 - Empathy Enables Us To:
 - Size up your opponent.
 - Bring balance into the conversation.
 - Identify needs (of the customer has something to win or lose, you're in business)
 - Position yourself to meet those needs
 - Identify reasonable resistance (verbal resistance that does not interfere)
 - Build trust.
 - Identify the real, unresolved issue
 - Hear the call for "help"
 - Share the limelight; create the "buy-in"



Verbal Tai Chi

Joe Anderson, Utility Forester

- Verbal P.P.E. for the Utility Arborist
 - Objective, De-Escalate and Ease Customer Vocal Confrontations & Conflicts.
 - Never loose your professionalism, stay calm, clearly state information, Do Not Lie!
 - Never belittle the customer, praise them for bringing the issue to your attention.
 - Size up customer's wants/needs, what is their end goal? Everyone's point of view is different.
 - Bring balance to the conversation, explain utilities have to provide safe and reliable power.
 - Explain utility company's options.
 - Explain utility customer's options.
 - Remain neutral and strive for balance between company and customer.
 - Minimize the hazards and conflicts between customer's trees and utility companies.
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Friday, March 6, 2020 Afternoon Sessions

- Competing for Space – How much soil is Enough and How Do You Integrate Competing Needs for the Client?, Jason Grabosky Ph.D. (Professor of Urban Forestry, Rutgers University)
 - FS 163.045 “Property Rights” or Wrong Closing Panel Discussion
 - John Harris, President – Earth Advisors, Inc.
 - Erin Downey, UF Student Researcher
 - Joe Anderson, Utility Forester – JEA
 - Emily O’Mahoney, ASLA, PLA, LEED*AP, BD&C – Gentile, Glas, Holloway, O’Mahoney & Associates, Inc.
 - Mar Torok, Senior Forester – Florida Forest Service
 - Exhibitors
 - TreeDiaper
 - Amereq, Inc.
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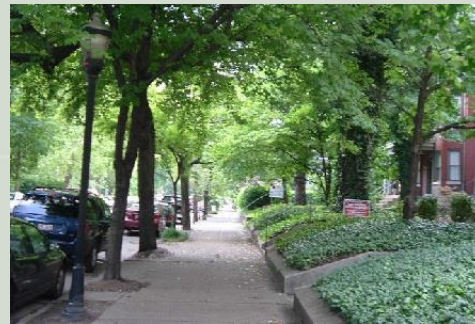


Competing for Space

Jason Grabosky, Ph.D. Rutgers University

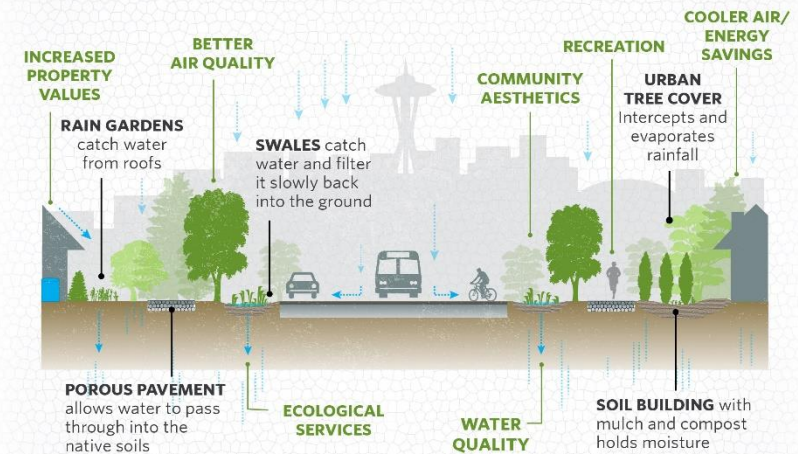
- How much soil is enough? – Integrate Completing Needs for Client
 - Air and Water Balance – Chemistry and Biology Define Success for Urban Trees.
 - Roots will go where they need to go for the tree or plant to survive based on soil physics.
 - Nesting trees within gray infrastructures, raised boxes, planters, imbedded into sidewalks.
 - Carrying capacity of urban forestry, small box = small tree, is it that simple?
 - Urban tree data, not the same as forest tree data.
 - Tree service life, predict then you can manage it.
 - Urban trees do not grow linearly.
 - Dependent to rainfall, number of events per year and duration.
 - Don't plant trees in parking lot, plant them on the perimeter, direct stormwater to the trees.
 - Copolux – Conduit with mats to guide tree roots under gray spaces to green spaces.
 - Book – *Urban Water Cycle Modelling and Management* by M. Arora & H. Malano
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Examples of Urban Forest



HOW ARE WE RETHINKING THE PROBLEM?

Re-envisioning and re-designing cities to function more like forests so water is absorbed back into the ground, in addition to treating stormwater through traditional means, will solve our region-wide stormwater problem.



GREEN & GRAY STORMWATER INFRASTRUCTURE

A study by the city of Philadelphia has shown a hybrid approach of green and gray infrastructure can get the same freshwater solutions as gray infrastructure, plus additional benefits to the community.

Data Source: City of Philadelphia Water Department
Infographic © TNC/Erica Simek Sloniker



FS 163.045 “Property Rights” or Wrong

■ Panel Discussion of the Meaning of FS 163.045

- Tree pruning, trimming, or removal on residential property..
 - 1) A local government may not require a notice, application, approval, permit, fee, or mitigation for the pruning, trimming, or removal of a tree on residential property if the property owner obtains documentation from an arborist certified by the International Society of Arboriculture or a Florida licensed landscape architect that the tree presents a danger to persons or property.
 - 2) A local government may not require a property owner to replant a tree that was pruned, trimmed, or removed in accordance with this section.
 - 3) This section does not apply to the exercise of specifically delegated authority for mangrove protection pursuant to ss. 403.9321-403.9333.
- Summary: The “danger” tree is the same one before the new law. No improvement to the law was the general consensus. Not all arborists have been trained in Risk Assessment.




Exhibitors

TreeDiaper <https://www.treed diaper.com>

- Hydrogel crystals embedded between two sheets of durable fabric catch and store rainwater. TreeDiaper then slowly releases the moisture back into the soil for healthy root development. This requires less labor than constantly refilling tree bags.

Amereq, Inc. (Exclusive License) <http://www.amereq.com/pages/16/index.htm>

- CU-Structural Soil, develop by Cornell University Research Foundation
 - Known as CU-Soil, it is a two-part system comprised of a rigid stone "lattice" that meets engineering requirements for a load-bearing paving base, and a quantity of uncompacted soil that supports tree root growth.
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TreeDiaper By zynnovation LLC

Thank you for purchasing
TREEDIAPER®
For best results, please follow
these procedures to install and use
your TreeDiaper® product!

TREEDIAPER® Advanced Plant Hydration System *For Trees and Shrubs* INSTRUCTIONS

A) Placing treemat up to 2 months before the dry season of your region



1. Place the TreeDiaper® product on top of soil around plants. Make sure the pellets inside the TreeDiaper® product are evenly distributed.



2. (Recommended, but optional) Cover with 2" of mulch to disguise and protect the TreeDiaper® product. **Do not cover with soil.** Landscaping staples can be used in a high wind region.



3. Water trees if wilting or yellow leaves appear or once every three to four (3-4) weeks if less than 1" of rainfall during that period.

B) Placing treemat during or less than two months before drought



1. Place the TreeDiaper® product completely submerged in water in a sink or bucket for at least 5 hours or overnight.

2. Follow steps 1-3 from procedure A.

C) Using treemat with an irrigation system

1. Follow procedure A or B.

2. Let drip irrigation water the top of the mat.



CU-Structural Soil By Amereq, Inc.



Fig. 1.8 From upper left, clockwise: uniformly-graded crushed stone of 3/4" - 1 1/2" diameter, pile and close-up; CU-Structural Soil™ after mixing; clay loam.

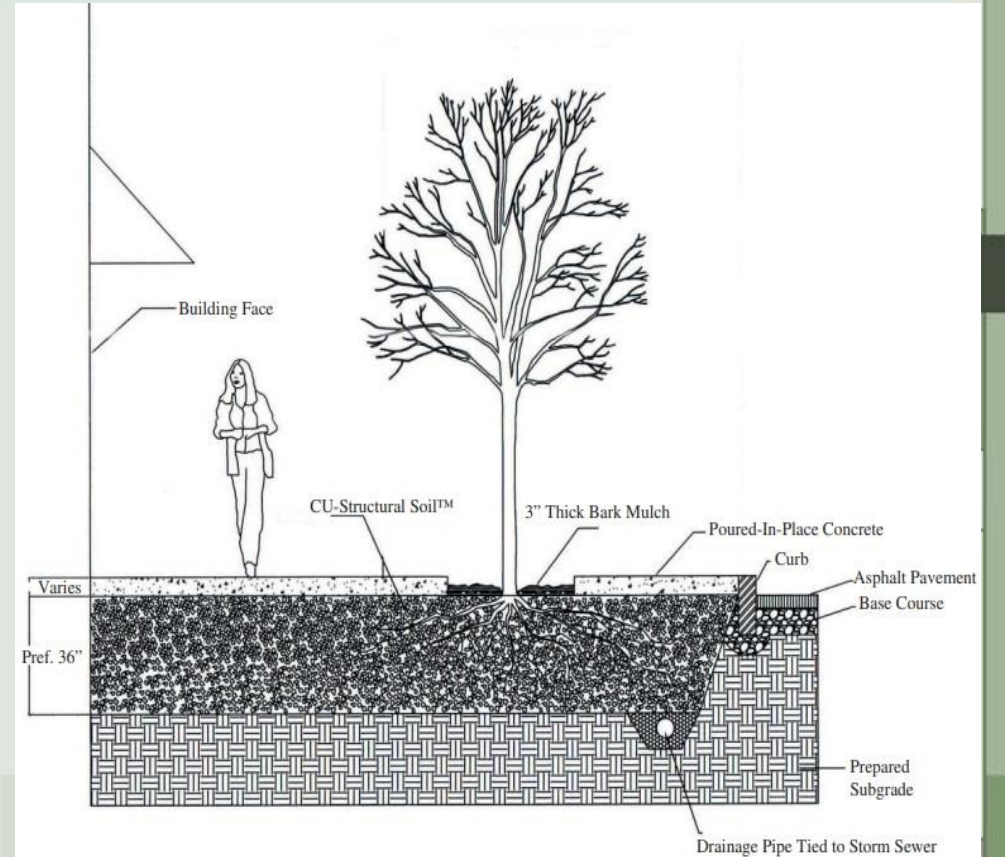


Fig. 1.12 Typical street tree planting using CU-Structural Soil™ under a sidewalk



Thank You!

Questions & Comments

Larry Koss

llkosmosjr@gmail.com