

Landscape Legend:

Symb	Qty	Tag WU	Name (N) Native (F) Flowering Tree (E) Evergreen
Trees:			
69	AR		Red Maple (N)(F)
80	IC		Acer rubrum, FG, 12' Ht, 5' Spr., 2.5" DBH
87	PE		Dahoon Holly (N)(E)
313	QV		Ilex cassine, FG, 12' ht, 5' Spr., 2.5" DBH
123	SP		Slash Pine (N)(E)
13	TA		Pinus eliotii 'densa', FG, 12' ht, 5' Spr., 2.5" DBH
76	TD		Live Oak (N)(E)
			Quercus virginiana, FG, 12' Ht, 5' Spr., 2.5" DBH
			Cabbage Palm (N) (3-1) relocated from site
			Yellow Tabebuia (F)
			Tabebuia argentea, FG, 12' Ht, 5' Spr., 2.5" DBH
			Bald Cypress (N)
			Taxodium distichum, FG, 12' ht, 5' Spr., 2.5" DBH
Accents:			
20	CRI		Crinum Lily
6	HIS		Crinum asiaticum 'Queen Emma, 7 gal, 36" oc
			Hibiscus Standard, 'Tequila'
			Hibiscus rosa-sinensis, 7 gal, STD, 36" ht
Shrubs:			
1345	FOR		Florida Privet (N)
848	HAM		Foresteria segregata, 3 gal, 24" ht, 36" o.c.
265	MUH		Dwarf Firebush (N)(F)
668	MYR		Hamelis patens 'Calusa', 3 gal, 18" ht, 36" o.c.
643	SER		Muhly Grass
76	TRI		Muhlenbergia capillaris, 3 gal, 36" oc
30	VIB		Wax Myrtle (N) (E)
221	ZAM		Myrica cerifera, 3 gal, 24"x18", 36" o.c.
			Saw Palmetto (N)
			Serenoa repens, 3 gal, 48" oc
			Fakahatchee Grass (N)
			Tripsacum dactyloides, 3 gal, 36" oc
			Dwarf Walters Viburnum (N)
			Viburnum obovatum 'Mrs Schiller', 3 gal, 24" ht, 24" o.c.
			Coontie (N)(E)
			Zamia pumila, 3 gal, 36" oc
Groundcover:			
5138	ARA		Perennial Peanut
70	LAN		Arachis glabrata 'Ecoturf', sod form
96	LIR		Pineland Lantana (N)
242	PEN		Lantana depressa, 1 gal, 6"x12", 36" o.c.
			Liriope
			Liriope muscari 'Emerald Goddess', 1 gal, 12" oc
			Pentas
			Pentas lanceolata 'New Look Red', 1 gal, 6" ht, 12" oc.

Landscape Data:

Exterior Landscape:

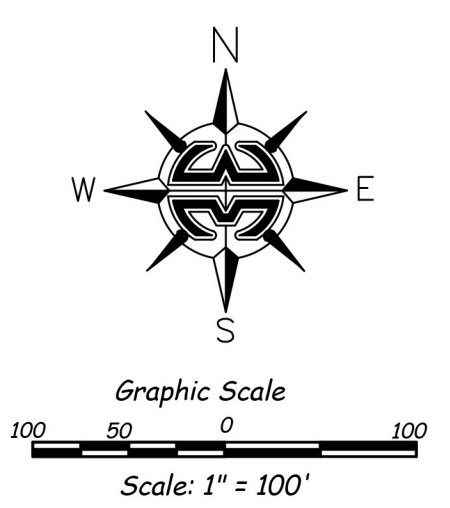
North: 2,266-50' driveway = 2,176 x10' = 21,760 sf/300	73 trees
East: 1,016'x10' = 10,160 sf/300	34 trees
West: 1,942'x10 = 19,420 sf/200	65 trees
South: 2,218'-100' driveway = 2,118 x10 = 21,180 sf/300	71 trees

Interior Landscape

Total VUA area: 204,339 sf	
Landscape Area required: 1 sf/15 sf VUA	13,623 sf
Total Interior trees required: 1 tree/100 sf	136 trees
Landscape area provided:	36,737 sf

Total trees required: 378 Trees
Total trees provided: 638 Trees

- General Notes:**
- No landscape materials other than sod grasses may be planted within a 5' radius maintenance area of any underground utility such as water meters, backflow devices, fire hydrants, sanitary sewer cleanouts, and manholes, air release valves, etc.
 - No landscaping shall be planted in a manner that would adversely affect utility easements.
 - All landscape areas to receive automatic irrigation. Water source to be potable or well and will be determined at time of building permit application.
 - Sod around buildings to be St. Augustine 'Bitter Blue' sod. Sod to be weed and disease free and laid tight. All areas within in preservation areas to be seeded with Argentine Bahia grass.
 - Not trees to be placed within 6' of any hard surface unless root barrier will be installed along the edge of the hard surface. Root barrier to extend at least 5' in either direction from the center of the tree trunk. Refer to Sheet LD-09 for installation details.



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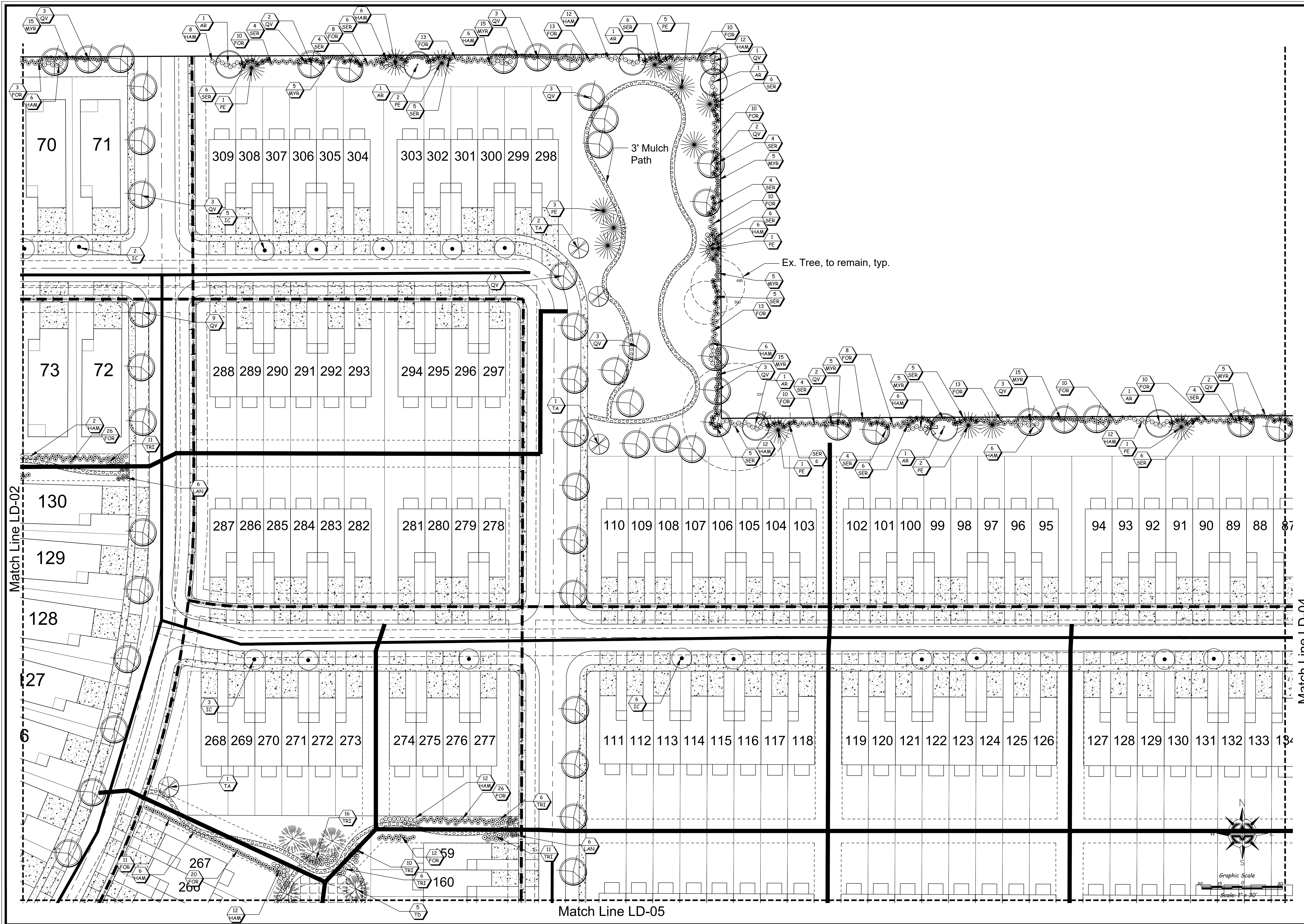
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Revisions

Date	Comments

Millcreek
City of Fort Pierce
Overall Landscape Plan

LD-01



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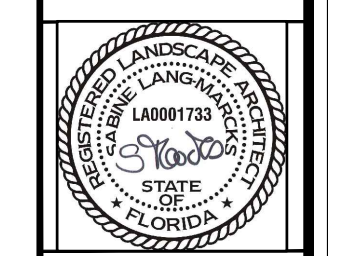
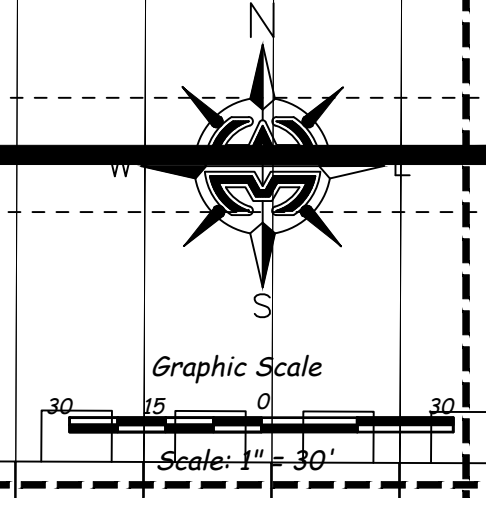
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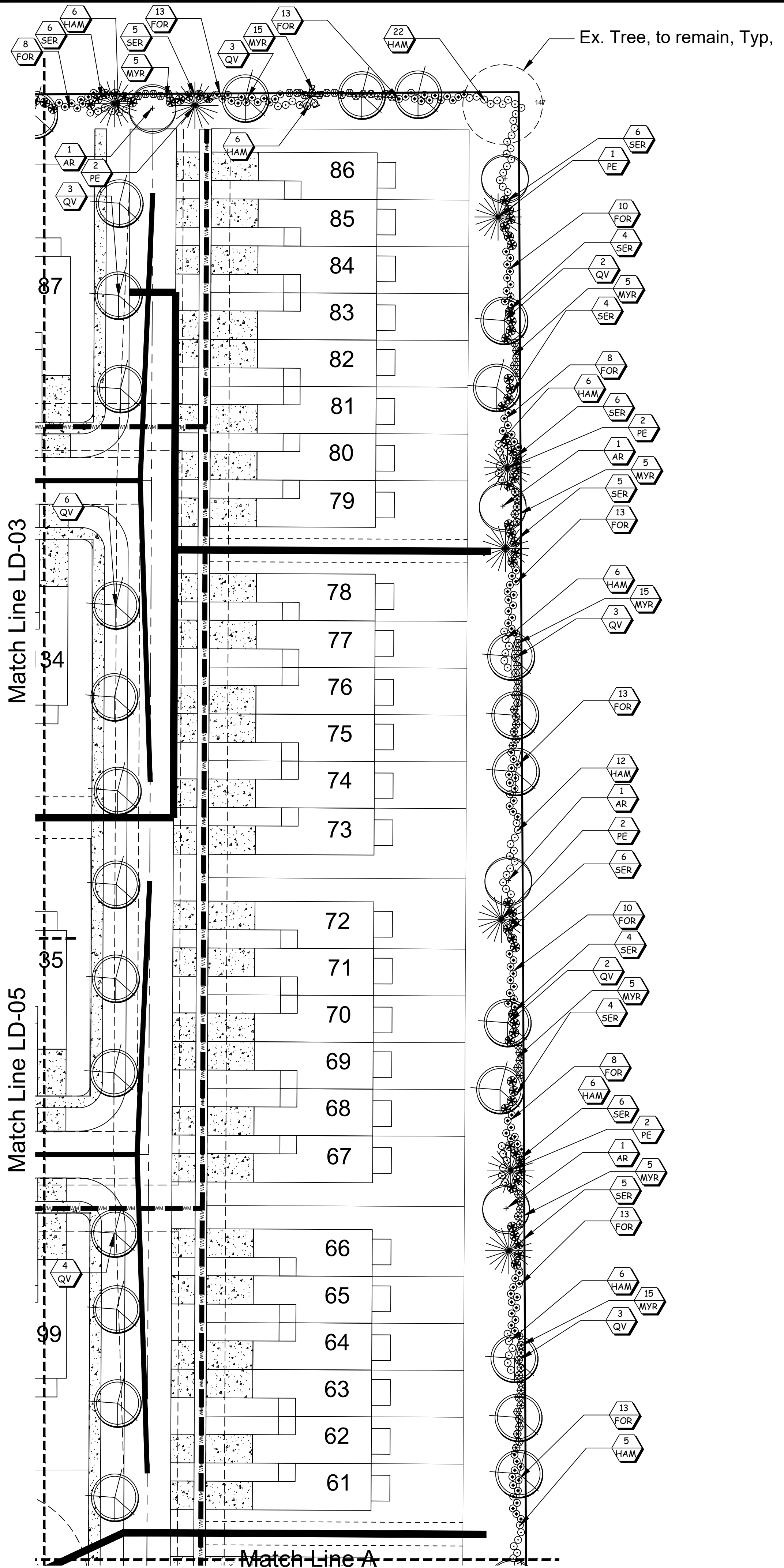
Revisions	Date	Comments

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Millcreek
 City of Fort Pierce
Landscape Plan

LD-03

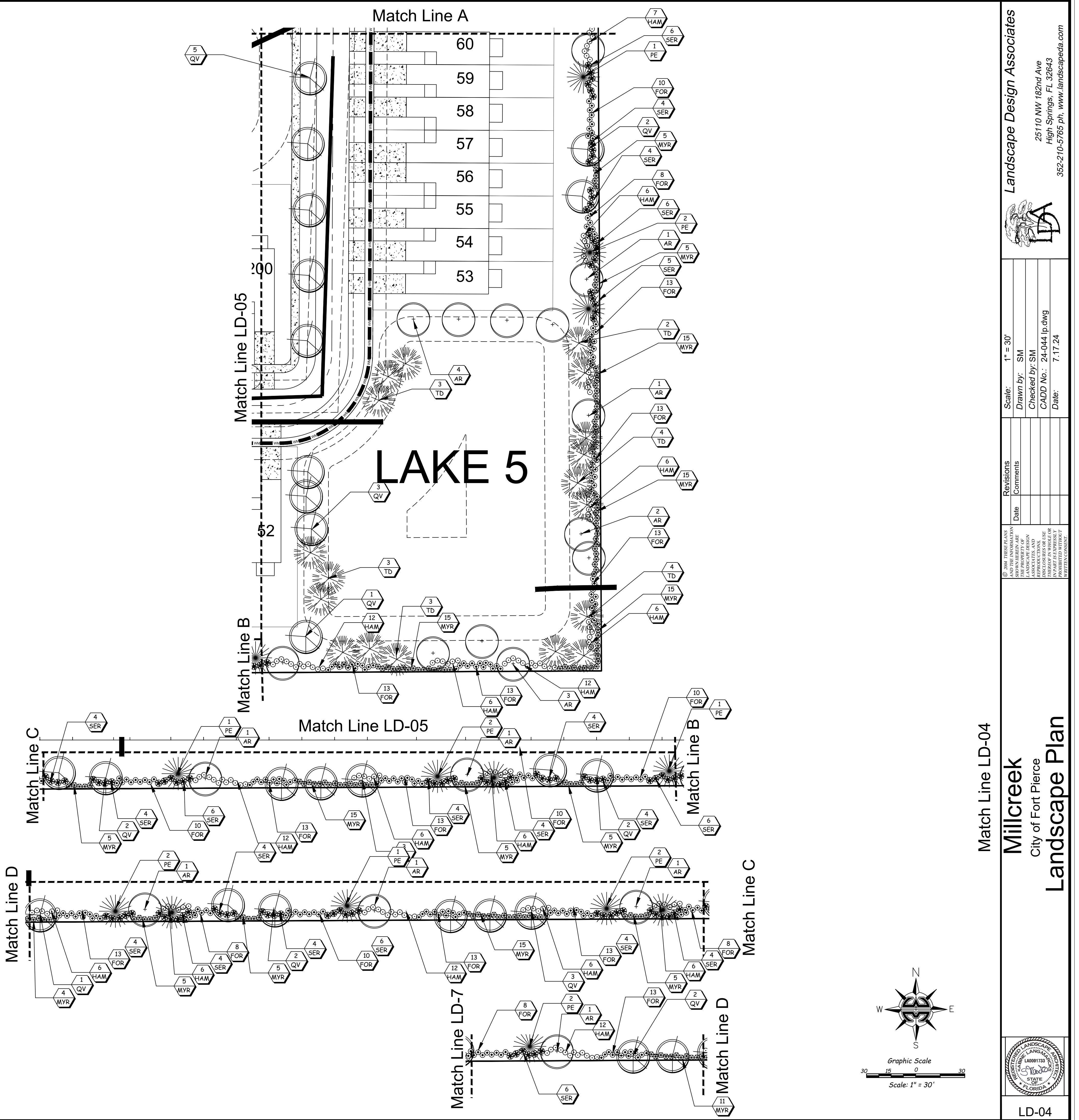




Match Line LD-03

Match Line LD-05

Match Line A

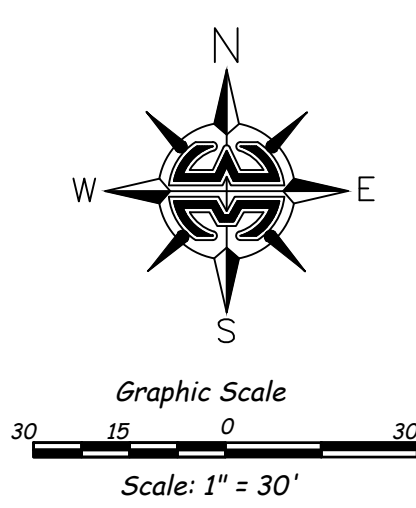


Match Line A

LAKE 5

Match Line LD-05

Match Line LD-04



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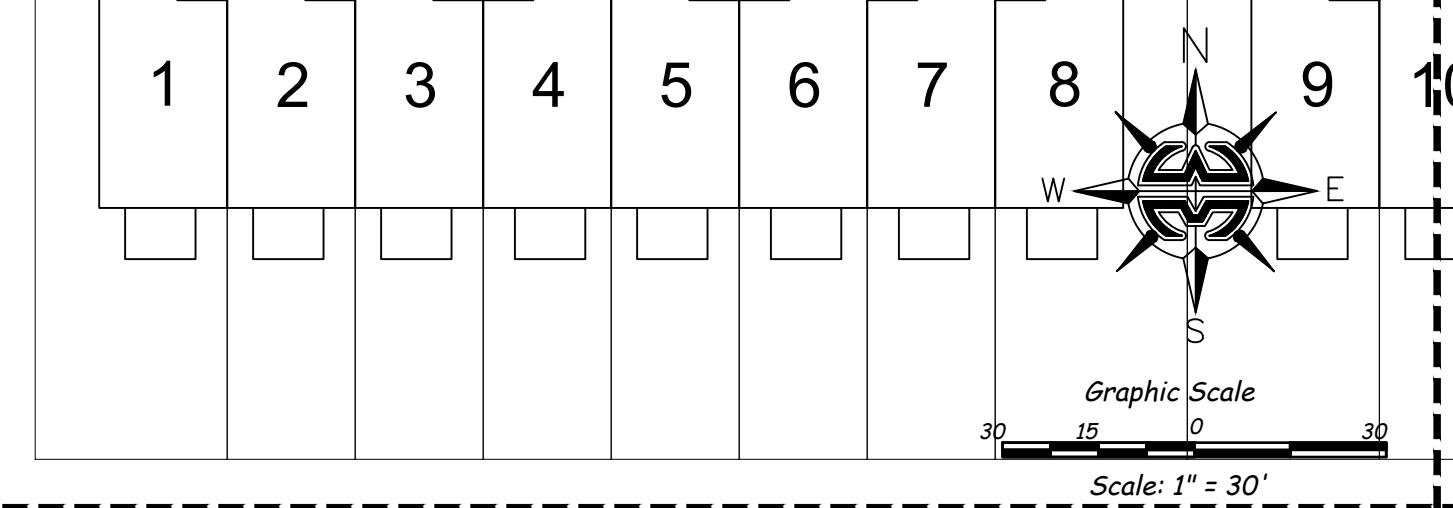
Millcreek
 City of Fort Pierce
 Landscape Plan

LD-04

Match Line LD-02



Match Line LD-07



Match Line LD-05

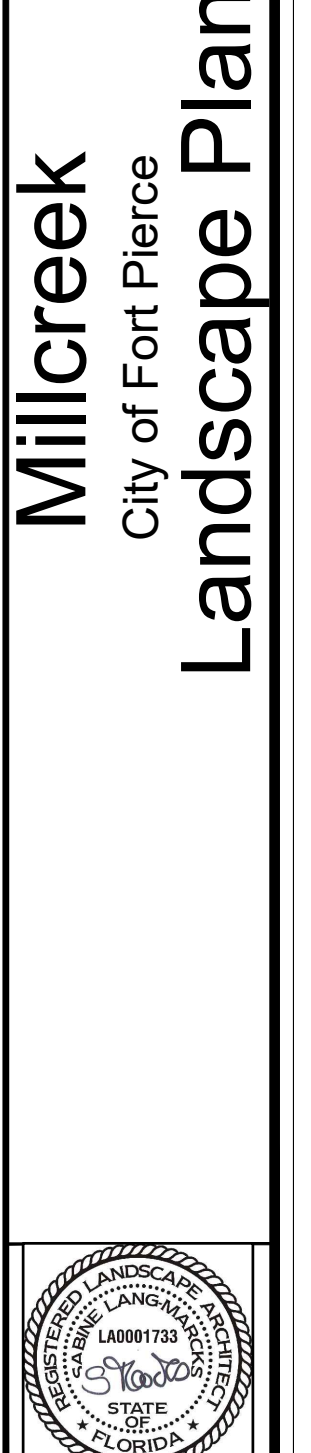
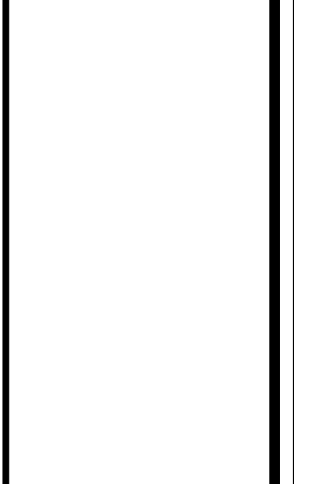
Millcreek
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Landscape Plan

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EXPIRES 12/31/2024



LD-06

PLANTING NOTES:

FERTILIZER

FERTILIZERS SHALL BE SLOW RELEASE, UNIFORM IN COMPOSITION, DRY AND FREE FLOWING. THE FERTILIZER SHALL BE DELIVERED TO THE SITE IN THE ORIGINAL UNOPENED BAGS, EACH BEARING THE MANUFACTURERS STATEMENT OF ANALYSIS AND SHALL MEET THE FOLLOWING REQUIREMENTS: SIX (6) PERCENT NITROGEN, SIX (6) PERCENT PHOSPHOROUS, AND SIX (6) PERCENT POTASSIUM. FERTILIZER SHALL BE APPLIED TO ALL SHRUBS (1/3 LB PER 3 GAL POT, 1/4 LB PER 1 GAL POT) AND GROUND COVER. THE SOD STARTER FERTILIZER MIXTURE SHALL BE A 5-10-10 ANALYSIS. A 14-14-14 FERTILIZER ANALYSIS IS REQUIRED ON ALL TREES AND SHRUBS OVER 5' IN HEIGHT (1/2 LB PER 5' OF SPREAD). AGRIFORM TABLETS WITH TWENTY (20) PERCENT NITROGEN, TEN (10) PERCENT PHOSPHOROUS, FIVE (5) PERCENT POTASSIUM IN 21 GRAM SIZES SHALL BE APPLIED ALONG WITH THE FERTILIZER PROCESS (1 WITH 1 GAL PLANTS, 2 WITH 3 GAL PLANTS AND 2 TABLETS PER 1" OF TREE TRUNK CALIPER). MAGNESIUM SULFATE SHALL BE APPLIED TO ALL PALMS AT INSTALLATION AT A RATE OF 1/2 LB PER INCH OF TRUNK CALIPER. MANGANESE SHALL BE APPLIED AT THE SAME RATE.

MULCH

MULCH MATERIAL SHALL BE COLORED 'A' GRADE CERTIFIED RECYCLED MULCH AND MOISTENED AT THE TIME OF APPLICATION TO PREVENT WIND DISPLACEMENT. MULCH SHALL BE APPLIED TO A MINIMUM OF 3" DEPTH IN PLANTING BEDS. MULCH SHALL NOT BE PLACED WITHIN 6" OF TREE OR PALM TRUNKS.

SOD

THE SOD SHALL BE CERTIFIED TO MEET FLORIDA STATE PLANT BOARD SPECIFICATIONS, ABSOLUTELY TRUE TO VARIETAL TYPE, AND FREE FROM WEEDS, FUNGUS, INSECTS AND DISEASE OF ANY KIND.

SUBSTITUTIONS

NO SUBSTITUTION OF PLANT MATERIAL TYPES OR SIZES WILL BE ALLOWED WITHOUT WRITTEN AUTHORIZATION FROM THE LANDSCAPE ARCHITECT OF RECORD. CONTAINER GROWN MATERIAL WILL NOT BE ACCEPTED AS A SUBSTITUTE FOR B & B MATERIAL UNLESS PREVIOUSLY APPROVED. INTENDED SUBSTITUTIONS SHALL BE SPELLED OUT IN BID.

MEASUREMENTS

SHADE TREES: HEIGHT SHALL BE MEASURED FROM GROUND TO THE AVERAGE BRANCH HEIGHT OF CANOPY. SPREAD SHALL BE MEASURED TO THE END OF BRANCHING EQUALLY AROUND THE CROWN FROM THE CENTER OF THE TRUNK. MEASUREMENTS ARE NOT TO INCLUDE ANY TERMINAL GROWTH. SINGLE TRUNK TREES SHALL BE FREE OF "V" CROTCHES THAT COULD BE POINTS OF WEAK LIMB STRUCTURE OR DISEASE INFESTATION.

SHRUBS: HEIGHT SHALL BE MEASURED FROM THE GROUND TO THE AVERAGE POINT WHERE MATURE PLANT GROWTH STOPS. SPREAD SHALL BE MEASURED TO THE END OF BRANCHING EQUALLY AROUND THE SHRUB MASS. MEASUREMENT AREA NOT TO INCLUDE ANY TERMINAL GROWTH.

PALMS: CLEAR TRUNK SHALL BE MEASURED FROM THE GROUND AT THE TIME OF INSTALLATION TO THE POINT WHERE THE MATURE AGED TRUNK JOINS THE IMMATURE OR GREEN PORTION OF THE TRUNK OR HEAD.

GREY WOOD (G.W.): SHALL BE MEASURED FROM THE GROUND AT THE TIME OF INSTALLATION TO TOP OF THE HARDENED TRUNK.

OVERALL HEIGHT (O.A.): SHALL BE MEASURED FROM THE GROUND AT THE TIME OF INSTALLATION TO THE AVERAGE FRONT HEIGHT.

PALMS WITH MARRED OR BURNED TRUNKS WILL NOT BE ACCEPTED.

PLANTING SOIL AND BACKFILL

TOPSOIL SHALL CONSIST OF A STABILIZED MIXTURE OF 60% YARD TRIMMINGS AND POSSIBLY BIOSOLIDIS PROCESSED ACCORDING TO STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION GUIDELINES FOR THE PROCESSING AND DISTRIBUTION OF SEWAGE SLUDGE COMPOST. RECYCLED TOPSOIL SHALL ONLY BE OBTAINED FROM A STATE PERMITTED RECYCLING FACILITY WHICH IS ALSO D.O.T. CERTIFIED AND STORES PRODUCT ON A PAD WITH A CURRENT NEMATODE CERTIFICATION FROM FLORIDA DEPARTMENT OF AGRICULTURE. RECYCLED TOPSOIL SHALL HAVE THE FOLLOWING CHARACTERISTICS:

- WEED FREE
- MOISTURE CONTENT 50% BY WEIGHT MAXIMUM
- WATER HOLDING CAPACITY 200% BY WEIGHT MINIMUM
- CARBON TO NITROGEN RATIO LESS THAN 25 TO 1
- ORGANIC MATTER CONTENT 40% BY DRY WEIGHT MINIMUM
- SOLUBLE SALTS LESS THAN 3 MMHOS/CM
- PH RANGE 7.0 - 7.9
- MINIMUM NUTRIENT LEVELS AS FOLLOWS:
 - MACRO NUTRIENTS: NITROGEN (N) - 1% MINIMUM, WATER INSOLUBLE NITROGEN 90% MINIMUM, PHOSPHORUS (P) - 0.5% MINIMUM, POTASSIUM (K) - 0.2% MINIMUM AND OTHER MACRO AND MICRO NUTRIENTS. THE RECYCLED TOPSOIL SHALL CONTAIN LEVELS OF THOSE MICRO NUTRIENTS NECESSARY FOR PLANT GROWTH. THESE INCLUDE CALCIUM, MANGANESE, SULFUR, BORON, COPPER, IRON, MANGANESE AND MOLYBDENUM. TOPSOIL NOT MEETING THESE REQUIREMENTS WILL NOT BE ACCEPTED.

BACKFILL:

ALL NEW AND TRANSPLANTED PLANT MATERIAL (INCLUDING NEW SOD) SHALL BE PLANTED ONLY AFTER PREPARATION OF EXISTING SOIL AS FOLLOWS: SPREAD A LAYER OF 3" DEPTH OF RECYCLED TOPSOIL (AS DEFINED ABOVE) OVER THE ENTIRE PLANTING AREA. THE TOPSOIL SHALL THEN BE UNIFORMLY DISKED, TILLED OR AERIFIED INTO THE EXISTING SOIL TO A DEPTH OF 12" UNDERNEATH SHRUBS AND GROUNDCOVERS, 6" UNDERNEATH SOD AND TO A DEPTH OF 36" FOR THE TREE PITS, WITH THE FOLLOWING EXCEPTION: NO ROTOTILLING OR DISKING SHALL OCCUR CLOSER TO THE TRUNKS OF ESTABLISHED PLANTS THAN ONE HALF (1/2) THE DISTANCE OF THE CANOPY FURTHER OUT FROM THE DRIP LINE OF THE EXISTING PLANT CANOPY. ALL PLANTS, INCLUDING HEDGES AND GROUND COVER SHALL BE PLANTED IN INDIVIDUALLY DUG HOLES AND THE MATERIAL DUG FROM THE HOLES SHALL THEN BE FURTHER MIXED WITH THE PREPARED SITE SOIL PRIOR TO BACKFILLING OF THE PLANTING HOLES AROUND THE ROOT BALLS. NO ADDITIONAL BACKFILL SOIL SHALL BE USED. AN EXCEPTION ARE PLANTING PITS FOR CABBAGE PALMS, WHICH SHALL BE BACKFILLED WITH CLEAN NATIVE SAND ONLY.

REMOVE EXCESS MATERIAL TO PROVIDE PROPER FINISHED GRADE.

PLANT MATERIALS

TREES, PALMS, SHRUBS, GROUND COVERS:

PLANT SPECIES AND SIZES SHALL CONFORM TO THOSE INDICATED IN THE DRAWINGS. NOMENCLATURE SHALL CONFORM TO STANDARDIZED PLANT NAMES, 1942 EDITION. ALL NURSERY STOCK SHALL BE IN ACCORDANCE WITH GRADES AND STANDARDS FOR NURSERY PLANTS, PARTS I & II, LATEST EDITION PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES. UNLESS SPECIFIED OTHERWISE, ALL PLANTS SHALL BE NORMAL FOR THE VARIETY AND FLORIDA GRADE NUMBER 1 OR BETTER AS DETERMINED BY THE FLORIDA DIVISION OF PLANT INDUSTRY.

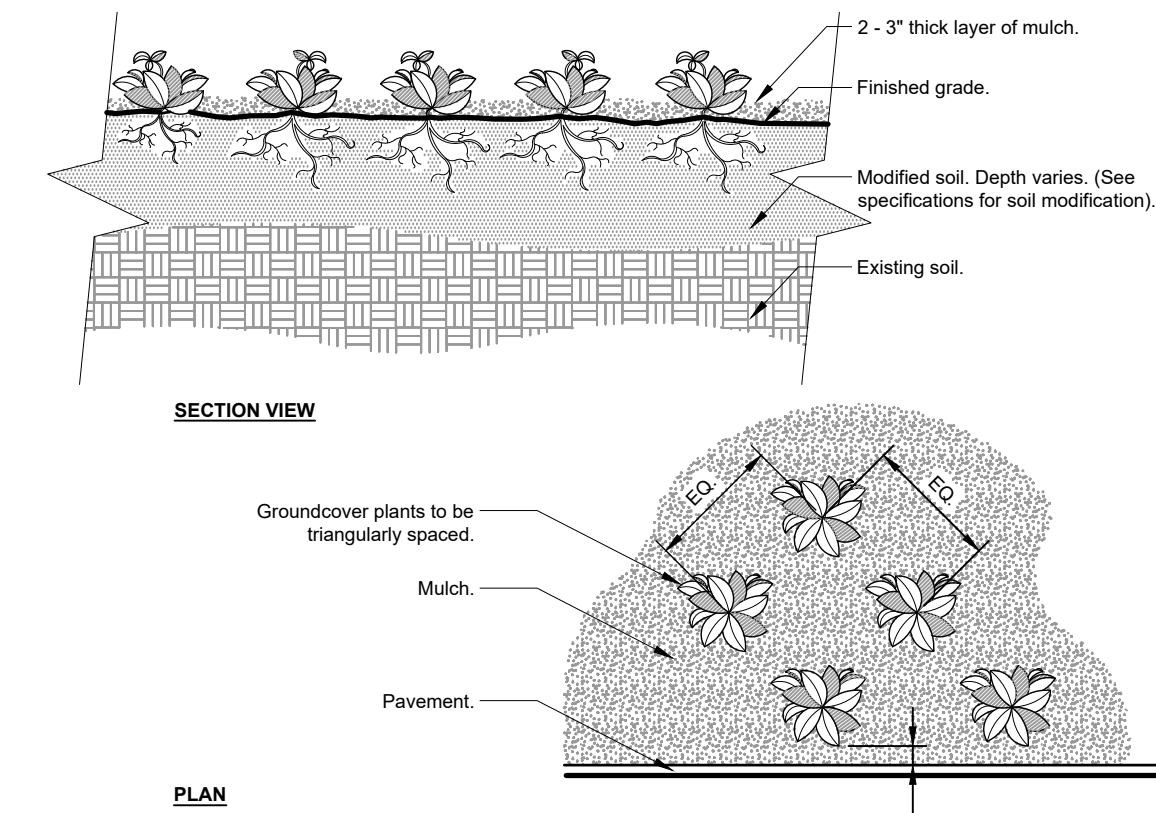
SPECIMEN MEANS AN EXCEPTIONALLY HEAVY, SYMMETRICAL, TIGHTLY KNIT PLANT, SO TRAINED OR FAVORED IN ITS DEVELOPMENT THAT FIRST APPEARANCE IS UNQUESTIONABLE AND IT IS OUTSTANDINGLY SUPERIOR IN FORM, NUMBER OF BRANCHES, COMPACTNESS AND SYMMETRY.

ALL PLANTS SHALL BE FRESHLY DUG, SOUND, HEALTHY, VIGOROUS, WELL BRANCHED AND FREE OF DISEASE AND INSECT EGGS AND LARVAE AND SHALL HAVE ADEQUATE ROOT SYSTEMS. TREES FOR PLANTING ROWS SHALL BE UNIFORM IN SIZE AND SHAPE. ALL MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE LANDSCAPE ARCHITECT, WHERE REQUIREMENTS ARE OMITTED FROM THE PLANT LIST, PLANTS SHALL BE PRUNED PRIOR TO DELIVERY ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT.

ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL ROOTED PLANTS AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS OF GOOD QUALITY AND BE IN HEALTHY GROWING CONDITION. AN ESTABLISHED CONTAINER GROWN PLANT SHALL BE TRANSPLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG ENOUGH FOR THE NEW FIBROUS ROOTS TO HAVE DEVELOPED SO THAT THE ROOT MASS WILL RETAIN ITS SHAPE AND HOLD TOGETHER WHEN REMOVED FROM THE CONTAINER.

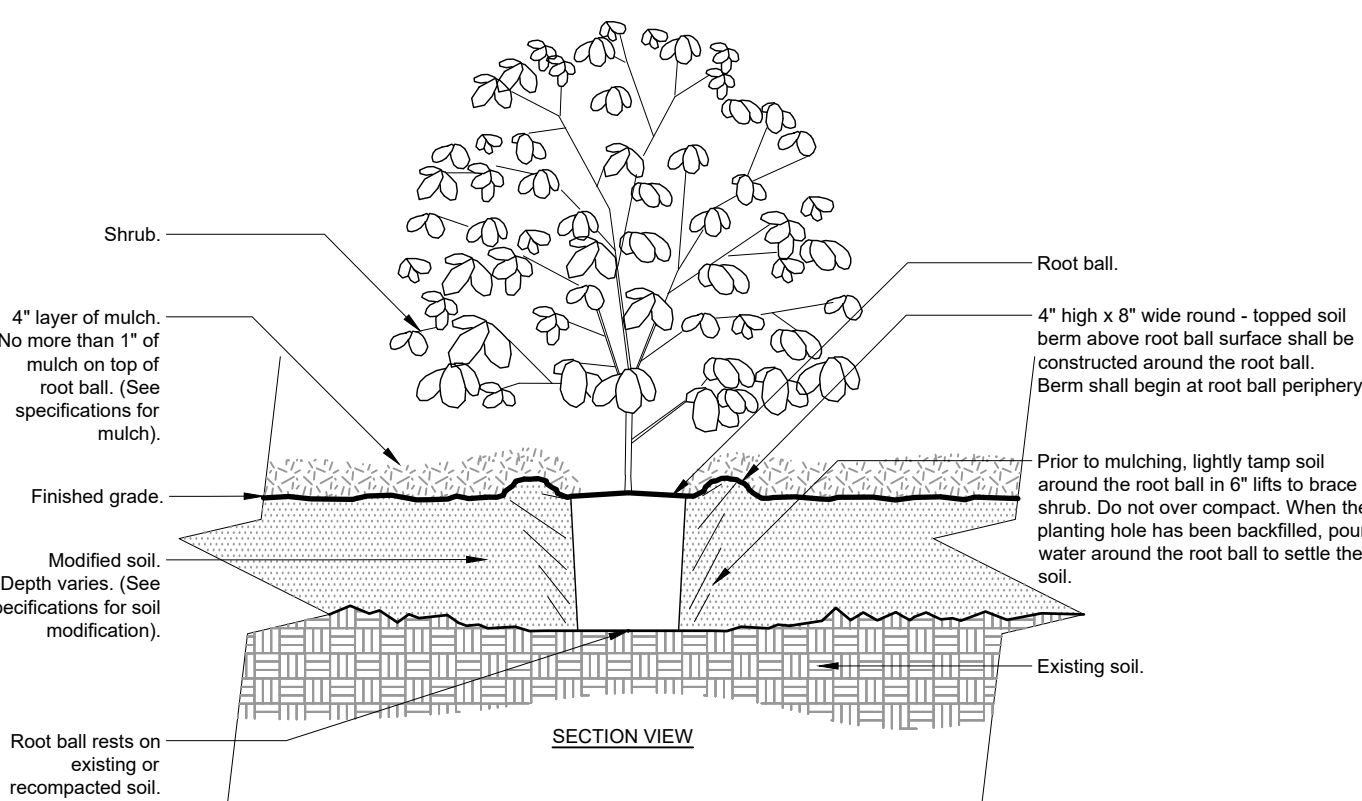
GENERAL NOTES:

1. THE CONTRACTOR SHALL PERSONALLY ACQUAINT HIM/HER SELF WITH THE EXISTING SITE CONDITIONS AND THE EXTENT AND SCOPE OF WORK REQUIRED.
2. THE PLANT LIST INDICATES THE NAMES, SIZES AND SPACING OF SPECIFIC PLANT MATERIALS. QUANTITIES HAVE BEEN PROVIDED TO THE CONTRACTOR AS A CONVENIENCE, THE CONTRACTOR IS RESPONSIBLE FOR HIS/HER OWN QUANTITY COUNT. IN CASE OF DISCREPANCIES BETWEEN THE DRAWINGS AND PLANT LIST, THE QUANTITIES ON THE PLANT LIST SHALL PREVAIL.
3. NO SUBSTITUTES ON VARIETIES LISTED WILL BE ALLOWED WITHOUT WRITTEN APPROVAL FROM LANDSCAPE ARCHITECT.
4. PLANTS SHALL BE WATERED AS NECESSARY OR WITHIN 24 HOURS AFTER NOTIFICATION BY THE LANDSCAPE ARCHITECT.
5. THE LOCATIONS OF PLANTS, AS SHOWN IN THESE PLANS, ARE APPROXIMATE. THE FINAL LOCATIONS MAY BE ADJUSTED TO ACCOMMODATE UNFORESEEN FIELD CONDITIONS. MAJOR ADJUSTMENTS TO THE LAYOUT ARE TO BE APPROVED BY THE LANDSCAPE ARCHITECT OF RECORD.
6. ALL PLASTIC FABRIC SHALL BE REMOVED FROM PLANT MATERIAL AT TIME OF INSTALLATION.
7. ALL TREES MUST BE STAKED AS SHOWN ON THE LANDSCAPE DETAIL SHEET WITHIN 24 HRS OF PLANTING. STAKES TO REMAIN FOR A MINIMUM OF 12 MONTH BUT NO LONGER THAN 18 MONTH. CONTRACTOR RESPONSIBLE FOR MAINTENANCE AND REMOVAL OF THE STAKES.
8. ALL TREES MUST BE PRUNED AS PER LANDSCAPE ARCHITECT DIRECTION.
9. ALL SOD EDGES SHALL BE TRIMMED AS PER THE LANDSCAPE ARCHITECTS DIRECTION.
10. ALL SHRUBS, TREES, GROUNDCOVERS, AND SOD AREAS SHALL HAVE IMPROVED SOIL AS PER PLANTING SOIL NOTES. WILDFLOWER AREAS SHALL BE NATIVE TOPSOIL ONLY.
11. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING.
12. SOAK PLANTS IMMEDIATELY WITH WATER FOLLOWING PLANTING.
13. MAINTAIN THE ORIGINAL GRADE OF THE TREE BASE.
14. DO NOT BREAK ROOTBALL. SHAPE ROOTBALL OF TREES PER DETAIL BELOW.
15. ALL PLANTS SHALL BE HARDY UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE ON LOCALITY OF THE PROJECT.
16. THE LANDSCAPE CONTRACTOR SHALL WATER, MULCH, WEED, PRUNE, AND OTHERWISE MAINTAIN ALL PLANTS, INCLUDING SOD, UNTIL COMPLETION OF THE CONTRACT OR ACCEPTANCE BY THE LANDSCAPE ARCHITECT. SETTLED PLANTS SHALL BE RESET TO PROPER GRADE, PLANTING SAUCERS RESTORED, AND DEFECTIVE WORK CORRECTED.
17. THE LANDSCAPE CONTRACTOR SHALL AT ALL TIMES KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIALS OR DEBRIS CAUSED BY THE CREWS DURING THE PERFORMANCE OF THE WORK. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL PROMPTLY REMOVE ALL WASTE MATERIALS, DEBRIS, UNUSED PLANT MATERIAL, EMPTY PLANT CONTAINERS AND ALL EQUIPMENT FROM THE PROJECT SITE.
18. UPON COMPLETION OF THE WORK, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AND REQUEST A FINAL INSPECTION. ANY ITEMS THAT ARE JUDGED INCOMPLETE OR UNACCEPTABLE BY THE LANDSCAPE ARCHITECT OR REPRESENTATIVE SHALL BE PROMPTLY CORRECTED BY THE LANDSCAPE CONTRACTOR.
19. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE IN WRITING FROM THE LANDSCAPE ARCHITECT. AT THE TIME OF FINAL ACCEPTANCE THE ONE (1) YEAR PERIOD SHALL COMMENCE. ANY MATERIALS WHICH HAVE DIED DURING THIS PERIOD SHALL BE PROMPTLY REPLACED WITH SPECIMENS THAT MEET THE MINIMUM REQUIREMENTS CALLED FOR IN THE DRAWINGS. THE LANDSCAPE CONTRACTOR SHALL NOT BE HELD RESPONSIBLE FOR THE DEATH OR DAMAGE RESULTING FROM LIGHTNING, VANDALISM, AUTOMOBILES OR FROM NEGLIGENCE BY THE OWNER. CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING AND OTHERWISE MAINTAINING PLANTS DURING THE GUARANTEE PERIOD UNLESS A WRITTEN AGREEMENT WITH THE LANDSCAPE ARCHITECT PROVIDES FOR A DIFFERENT ARRANGEMENT.
20. ALL LABOR AND MATERIAL FOR SOIL AMENDMENTS AND FERTILIZER THAT IS REQUIRED TO INSURE THE SUCCESSFUL ESTABLISHMENT AND SURVIVAL OF THE PROPOSED VEGETATION AS WELL AS ALL COST FOR THE REMOVAL OF UNSUITABLE OR EXCESS BACKFILL MATERIAL SHALL BE INCLUDED IN THE CONTRACTORS BID TO PERFORM THE WORK PRESENTED IN THIS PLAN SET.
21. NO LANDSCAPING ADDED UNDER THIS PROJECT SHALL BE LOCATED SUCH THAT SAID LANDSCAPING OBSCURES MOTORIST'S VISIBILITY OF ANY EXISTING SIGN(S).
22. 100% OF REQUIRED SHRUBS ARE DROUGHT TOLERANT.



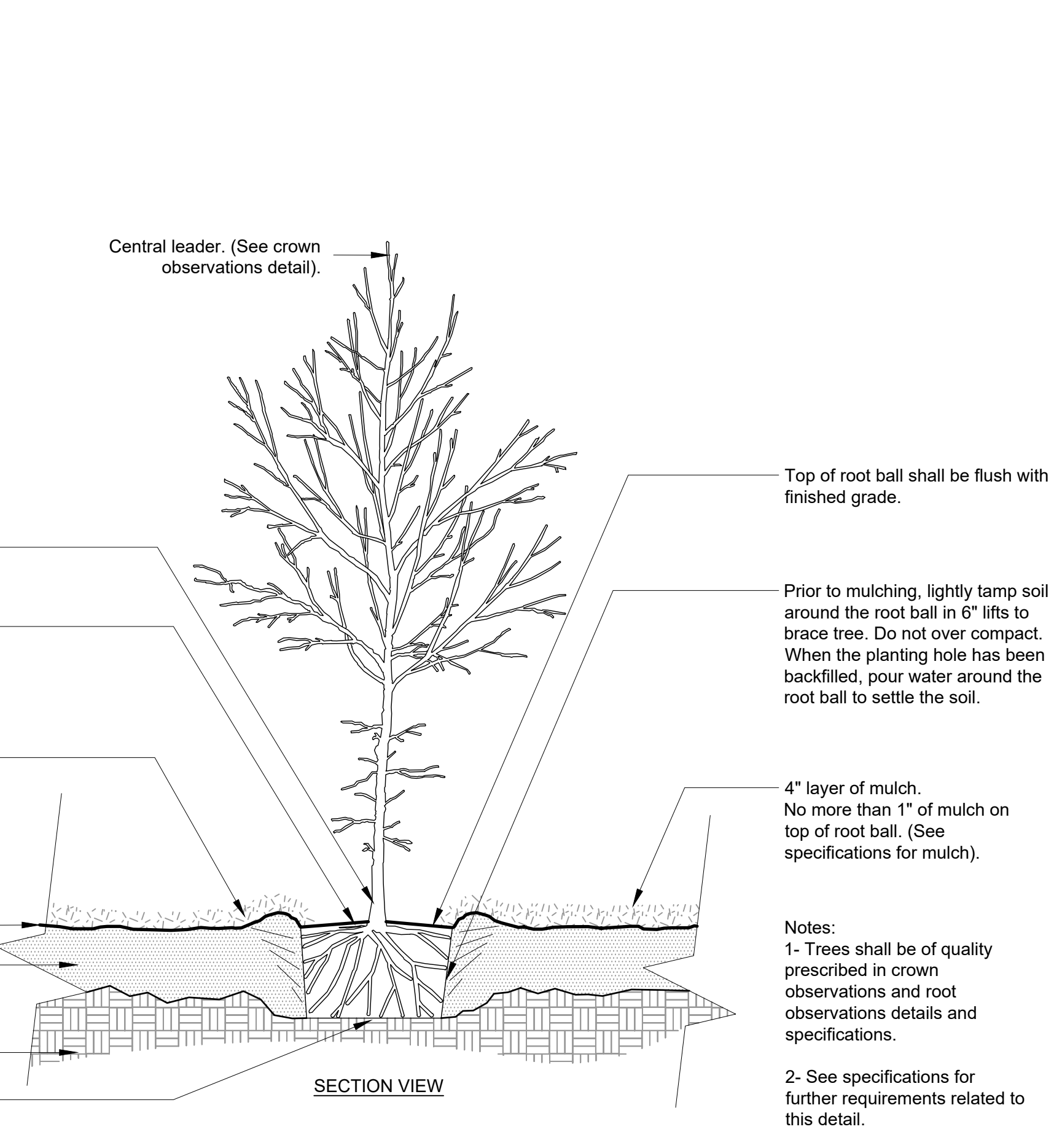
Notes:
 1- See planting legend for groundcover species, size, and spacing dimension.
 2- Small roots (1/2" or less) that grow around, up, or down the root ball periphery are considered a normal condition in container production and are acceptable however they should be eliminated at the time of planting. Roots on the periphery can be removed at the time of planting. (See root ball shaving container detail).
 3- Settle soil around root ball of each groundcover prior to mulching.

GROUND COVER

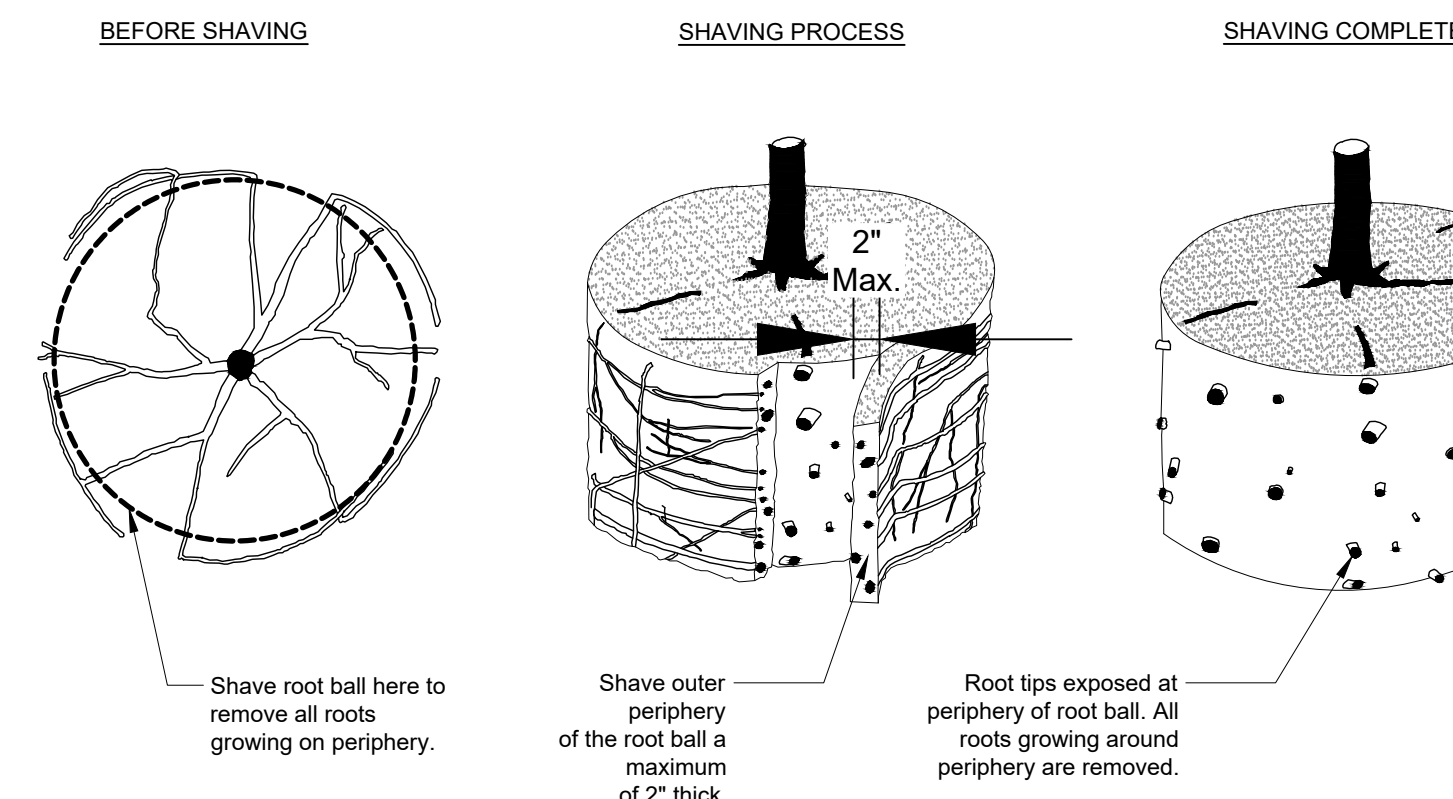


Notes:
 1- Shrubs shall be of quality prescribed in the root observations detail and specifications.
 2- See specifications for further requirements related to this detail.

SHRUB - MODIFIED SOIL



TREE w/ BERM (EXISTING SOIL MODIFIED)

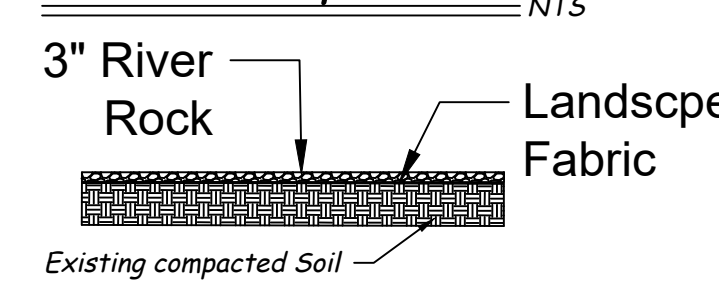


Notes:
 1- Shaving to be conducted using a sharp blade or hand saw eliminating no more than needed to remove all roots on the periphery of root ball.
 2- Shaving can be performed just prior to planting or after placing in the hole.

ROOT BALL SHAVING CONTAINER DETAIL

Watering Schedule			
Item	Water	Month	No. of Applications
Palms	20 gal	1	12
Large Trees	30 gal	2	12
Small Trees	20 gal	3	8
Large Shrubs	10 gal	4	8
Small Shrubs	5 gal	5	5
Groundcover	5 gal		
Total Applications			45

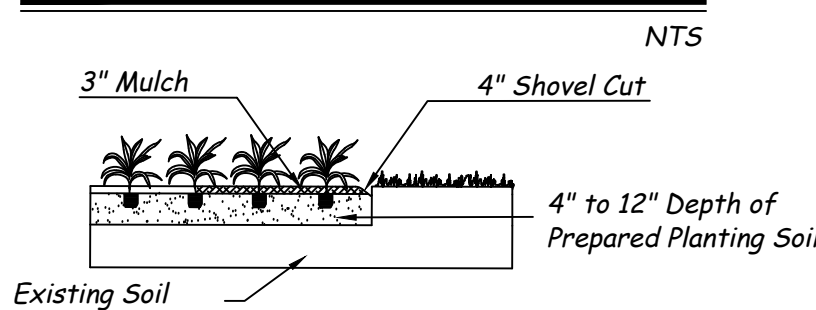
Gravel Strip Detail



ABBREVIATIONS:

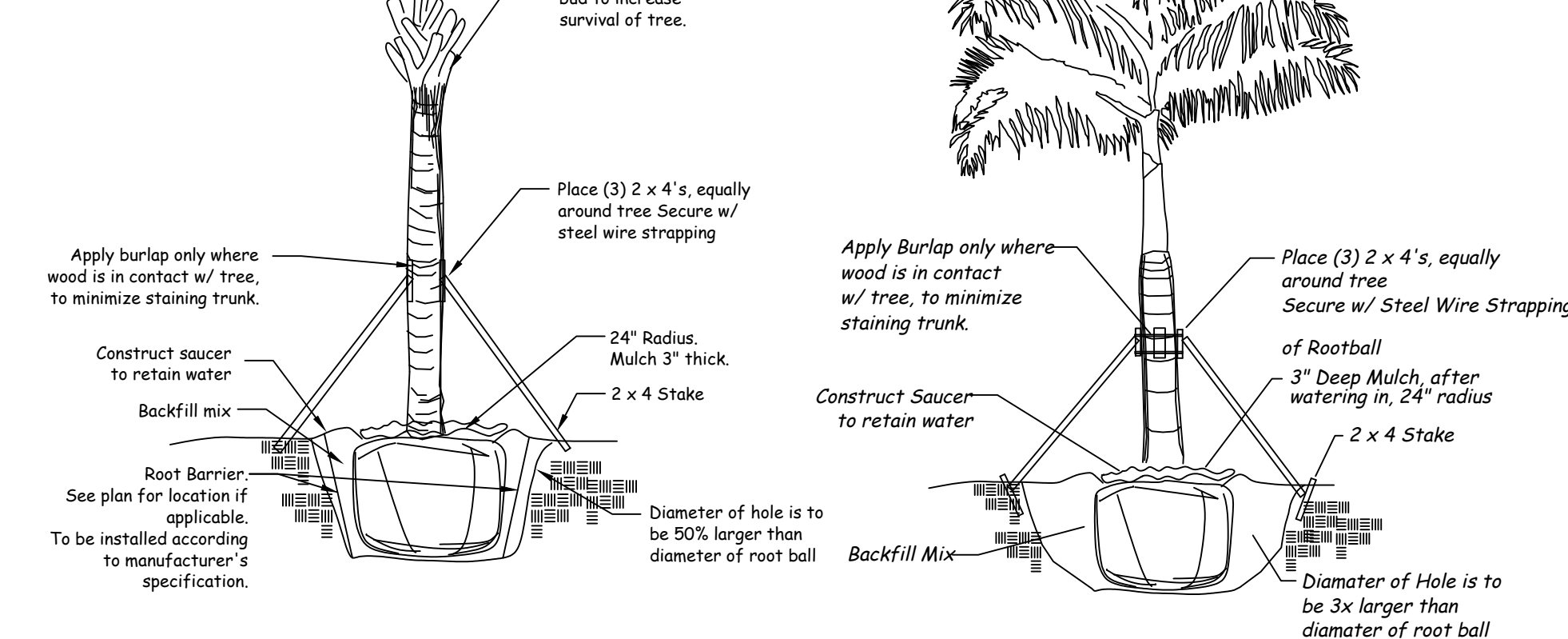
C.T. - CLEAR TRUNK
 Ht. - HEIGHT
 O.C. - ON CENTER
 Spr. - SPREAD

Planting Edge at Sod Detail



Palm Planting Detail

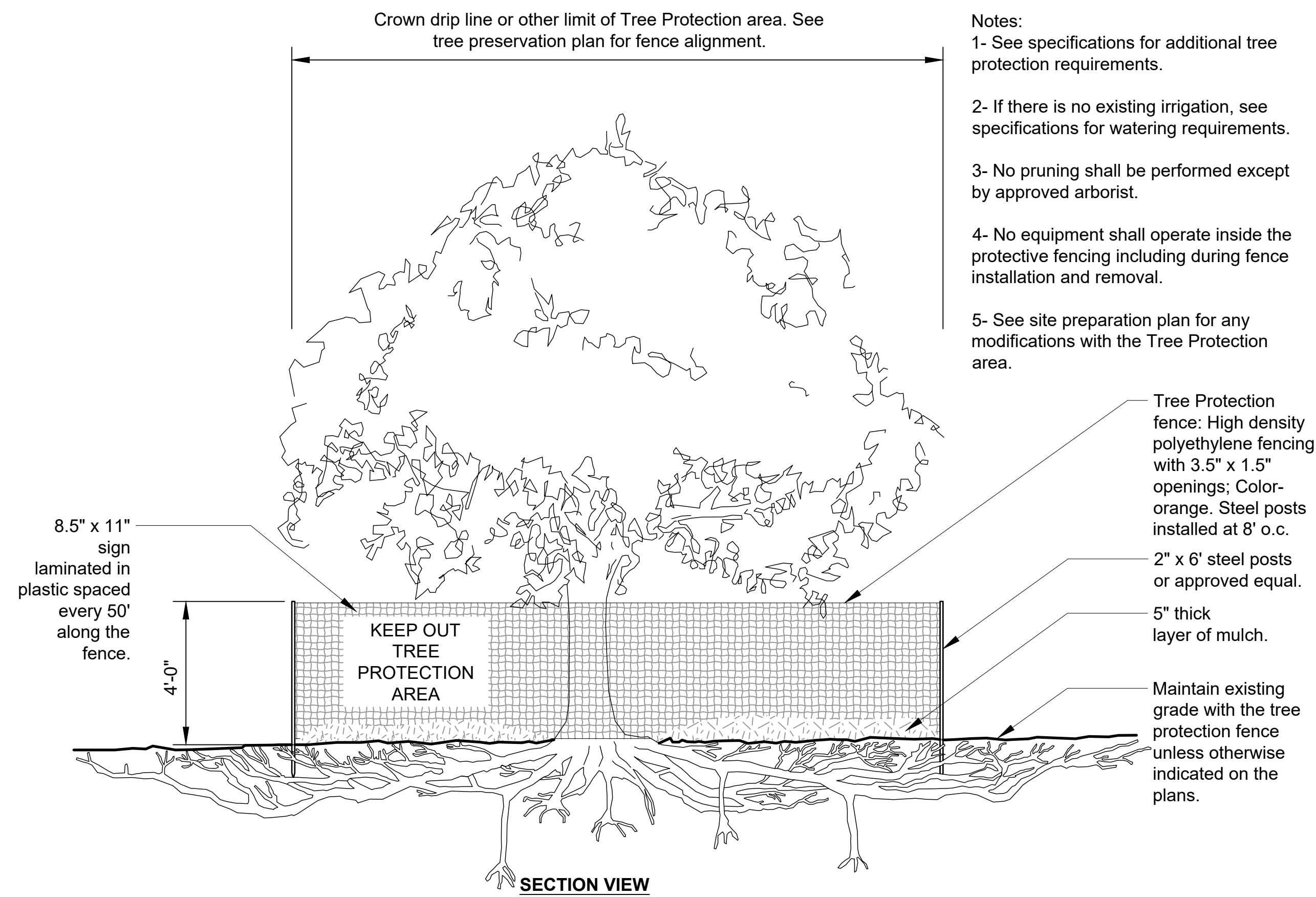
Tree Stakes are to be removed between 6-12 months by the Owner.



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Date	

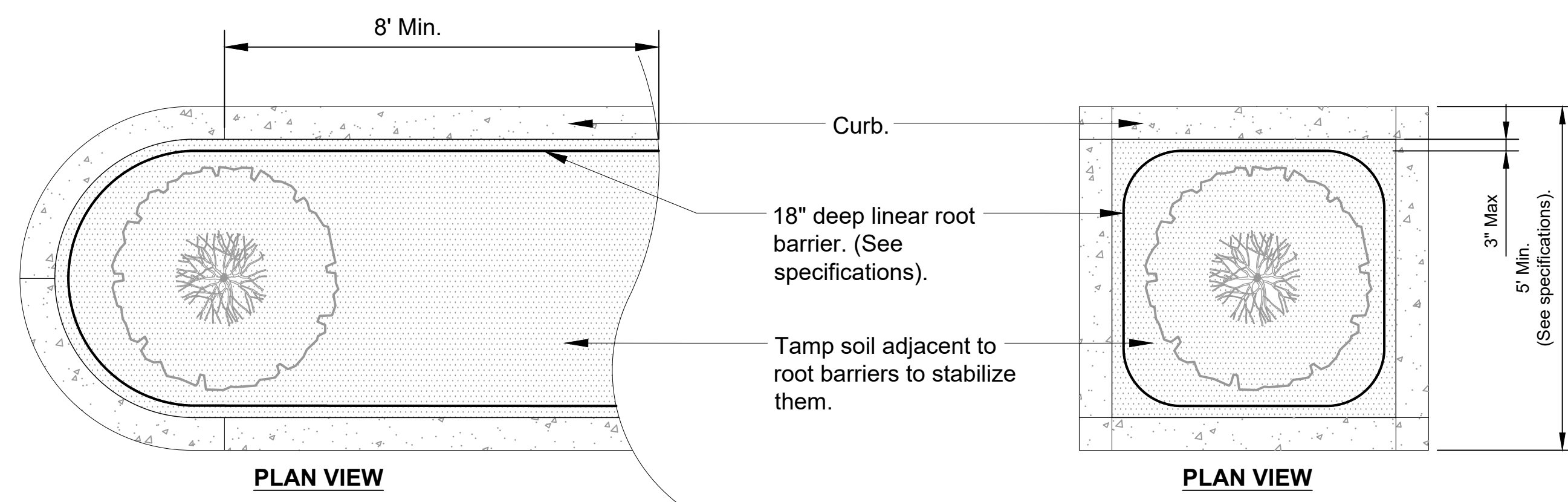
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S-X TREE PROTECTION
1/4" = 1'-0"

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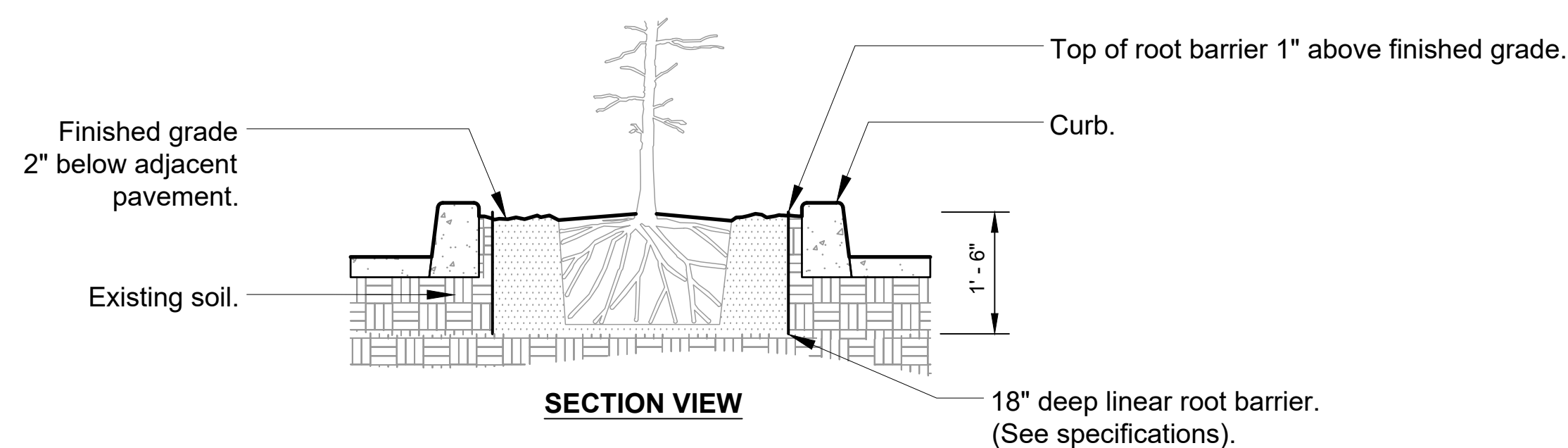
L_tree protection_safety netting



S-X ROOT BARRIERS
3/8" = 1'-0"

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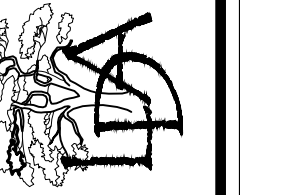
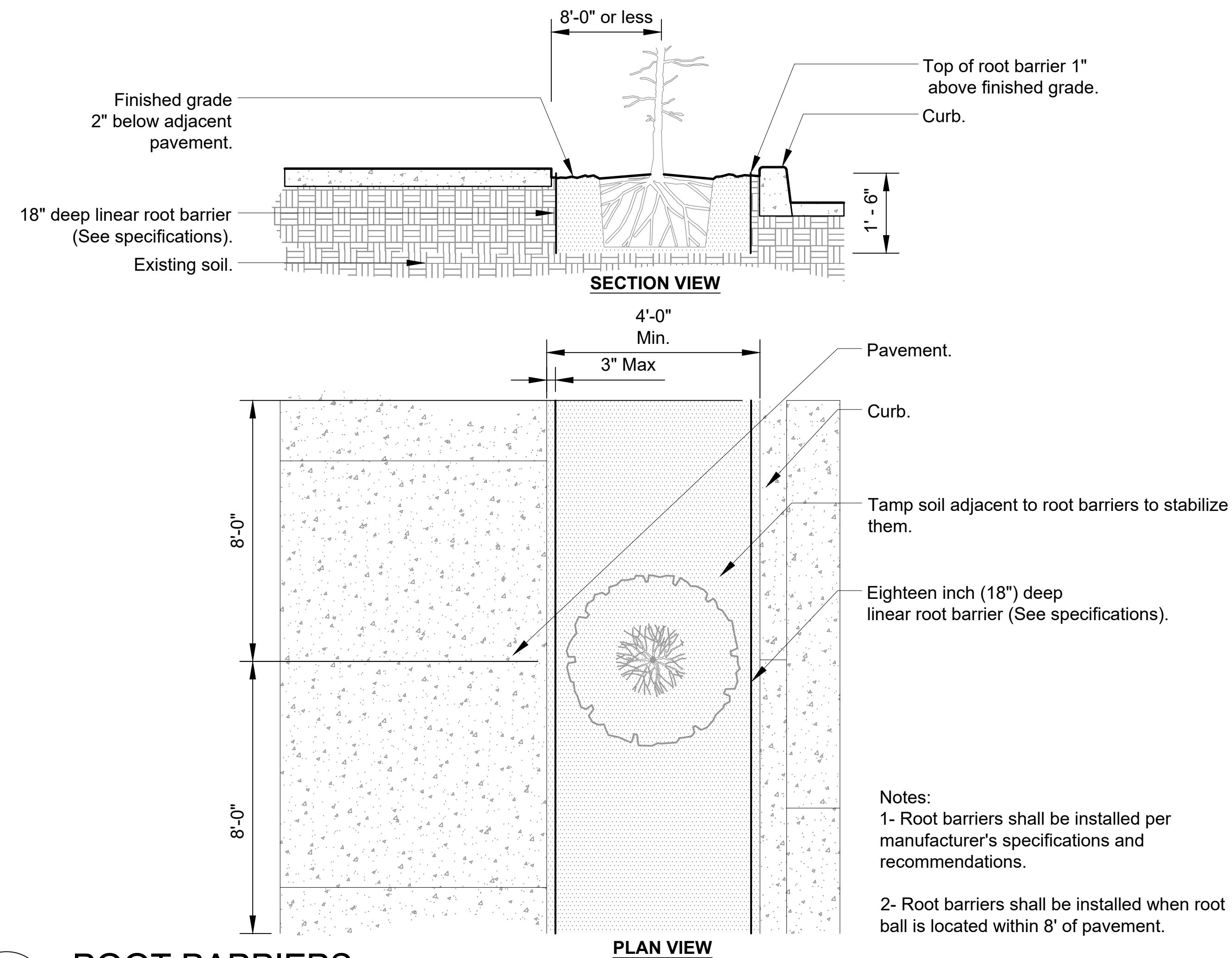
L_site preparation_rootbarriers



- Notes:
- 1- Root barriers shall be installed per manufacturer's specifications and recommendations.
 - 2- Root barriers shall be installed when root ball is located within 6' of pavement.

ROOT BARRIERS - PARKING LOT ISLANDS

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Scale:	NTS
Drawn by:	SM
Checked by:	SM
CADD No.:	24-044 lp.dwg
Date:	7.17.24

Revisions	Comments	Date

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Littoral Planting Specifications

Part 1: General Notes

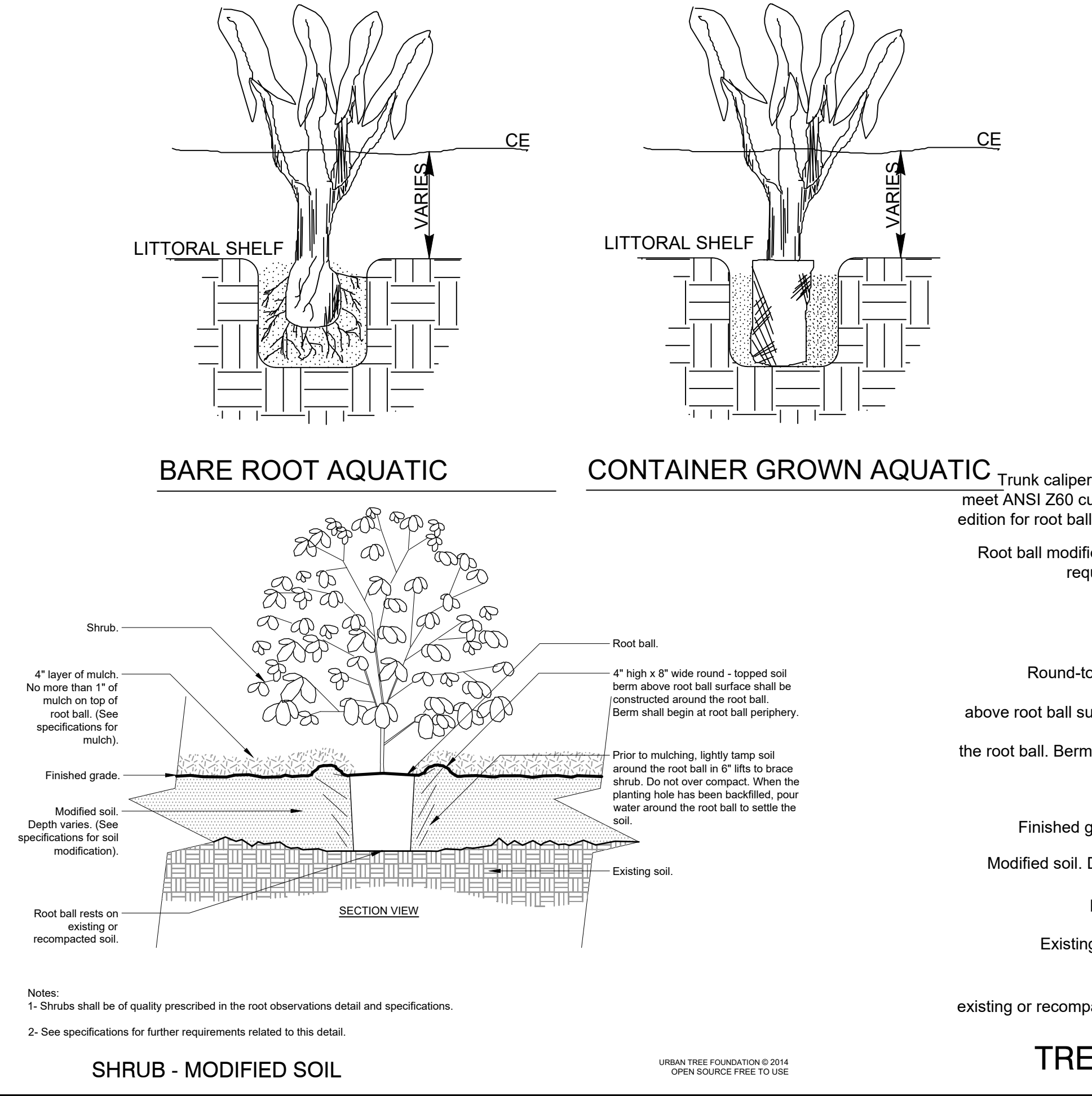
- The contractor shall confirm water elevation is stable at the control elevation level (C.E.) prior to installing any littoral plant material.
- The contractor shall verify littoral shelf elevations and stabilization and confirm proper grade relationship for littoral plant materials specified prior to installation.
- Littoral planting zone shall be staked by the contractor for approval by the owner or the owner's representative prior to installation.
- The contractor shall be responsible for any damage to existing plant material along the shoreline and for coordinating with other contractors on the job site.
- All littoral plant material shall comply with applicable State and local rules and regulations.
- Lake shoreline bank above the C.E shall be sodded where applicable prior to littoral planting installation. All sodded areas shall be installed a minimum of 1' clear of the C.E..
- The Contractor shall be responsible for inspecting and accepting contract documents and/or indicating necessary changes to contract documents at time of bid. Changes or necessary field adjustments must be approved by County and Landscape Architect.

Part 2: Materials

- All littoral plants indicated are naturally occurring species indigenous to the area. Naturalistic plantings as shown on contract documents shall be adhered to by the contractor.
- All container grown materials shall be healthy, vigorous, well-rooted plants and established in the container so that the root mass will retain its shape and hold together when removed from the container. The plants shall have tops which are of good quality and are in a healthy growing condition.
- All container grown or bare root littoral plant materials shall be grown or field collected by a certified nursery grower. Field grown plants area recommended wherever possible.
- Field collected plants should be cleaned and void of all native soil. Soil removal eliminates transport and establishment of plant/animal pests.
- All littoral plant materials should exhibit healthy white roots with active growing bud sites and shall have adequate root mass to support plant growth.
- Root bound littoral plants will not be accepted.
- Littoral plants shall not be handled by stems or foliage.

Part 3: Execution

- Depth for littoral planting are to be established from the Lake systems C.E..
- After transport, bare rooted littoral plant materials shall be protected to prevent dehydration and shall be installed within 48 hours after collection. (Plants shall be staged in water until installed).
- Nuisance and invader species such as Typha (Cattails) and Water-Primrose shall be hand removed on a regular monthly basis for a period of one year. Preventative spraying where applicable by an aquatic-approved herbicide for invasive plant materials should coincide with pre-planting practices.
- Littoral planting establishment shall be performed on stabilized slopes conforming to grades set from the CE.. P
- Planting shall not occur until the construction of all structures within the water management tract and drainage easements associated therewith, and the final grading of the water management tract and the adjacent area draining directly into the water management tract is complete and proper water quality is achieved.
- Planted littoral areas shall be protected from disturbance and sediments occurring from construction on adjacent sites.



Littoral Maintenance Plan

Part 1: General Notes

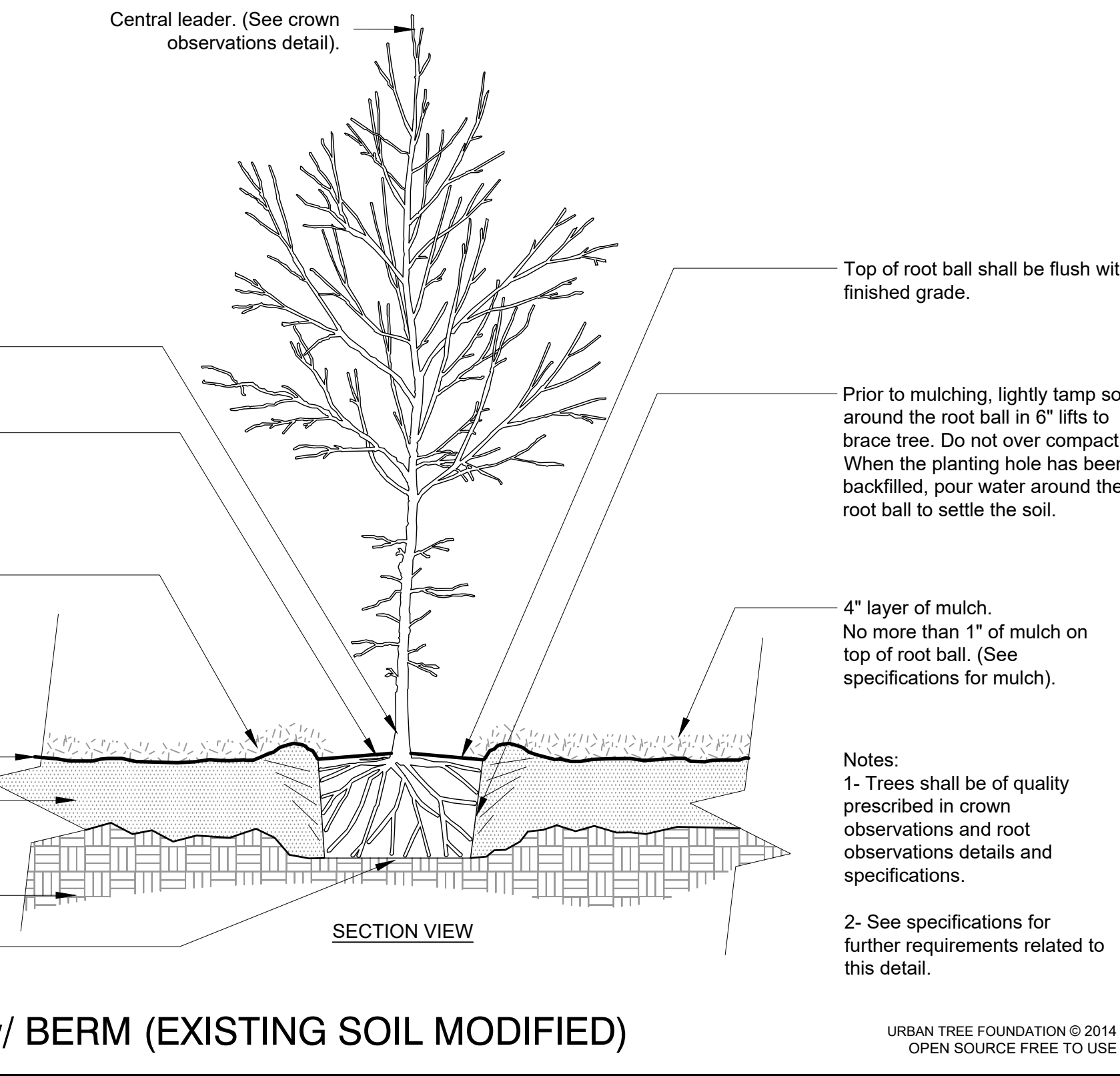
- Precautions will be taken to control and reduce construction oriented pollution from adjacent activities to the littoral areas.
- Equipment wash down areas, refueling and equipment repair shall occur away from areas of drainage collection or possible connection/influence of the littoral area.
- Land treatment chemicals and soil sterilants will not be used in or around areas where littoral areas are located.
- All construction debris piles associated with adjacent construction will be located away from littoral areas.
- Maintenance contractor shall be fully qualified and have full working knowledge of littoral zone maintenance requirements.
- Contractor shall be fully insured and possess a current occupational license in St. Lucie County, Florida.
- St. Lucie County shall be notified of installation commencement and schedule prior to planting.
- Source of plant material shall be reported to county if available.

Part 2: Plant Maintenance

- Periodic littoral zone examinations will occur after planting is completed. The examination shall entail growth evaluation, damage or death rate appraisal, pest infestation and the presence of exotic vegetation intrusion.
- Fertilization of the littoral area will result primarily from the run-off and the overall water quality composition. Therefore, supplemental fertilization shall not be applied after installation.
- Non-surviving plants shall be removed and replaced when identified.
- Once established, the littoral zone shall receive minimal pruning and be allowed to maintain itself as naturally as possible.
- Appropriate pesticides shall be applied at the time any pest infestations are observed.
- All exotic vegetation observed during the the inspections shall be removed by non-mechanical methods as timely as possible.
- The maintenance contractor shall be responsible for the removal of all trash generated by his activity or accumulations in the littoral zone.
- The maintenance contractor shall be responsible for registering all products used on the littoral zone with EPA and other appropriate agencies.
- The maintenance contractor shall be responsible for the following services:
 *Algae and undesirable aquatic plant control
 *Border grass and brush control along the waters edge
 *Annual water chemistry analysis
 *Visit pre-notification *Biological Control agent introduction (if required)
 *Management reporting

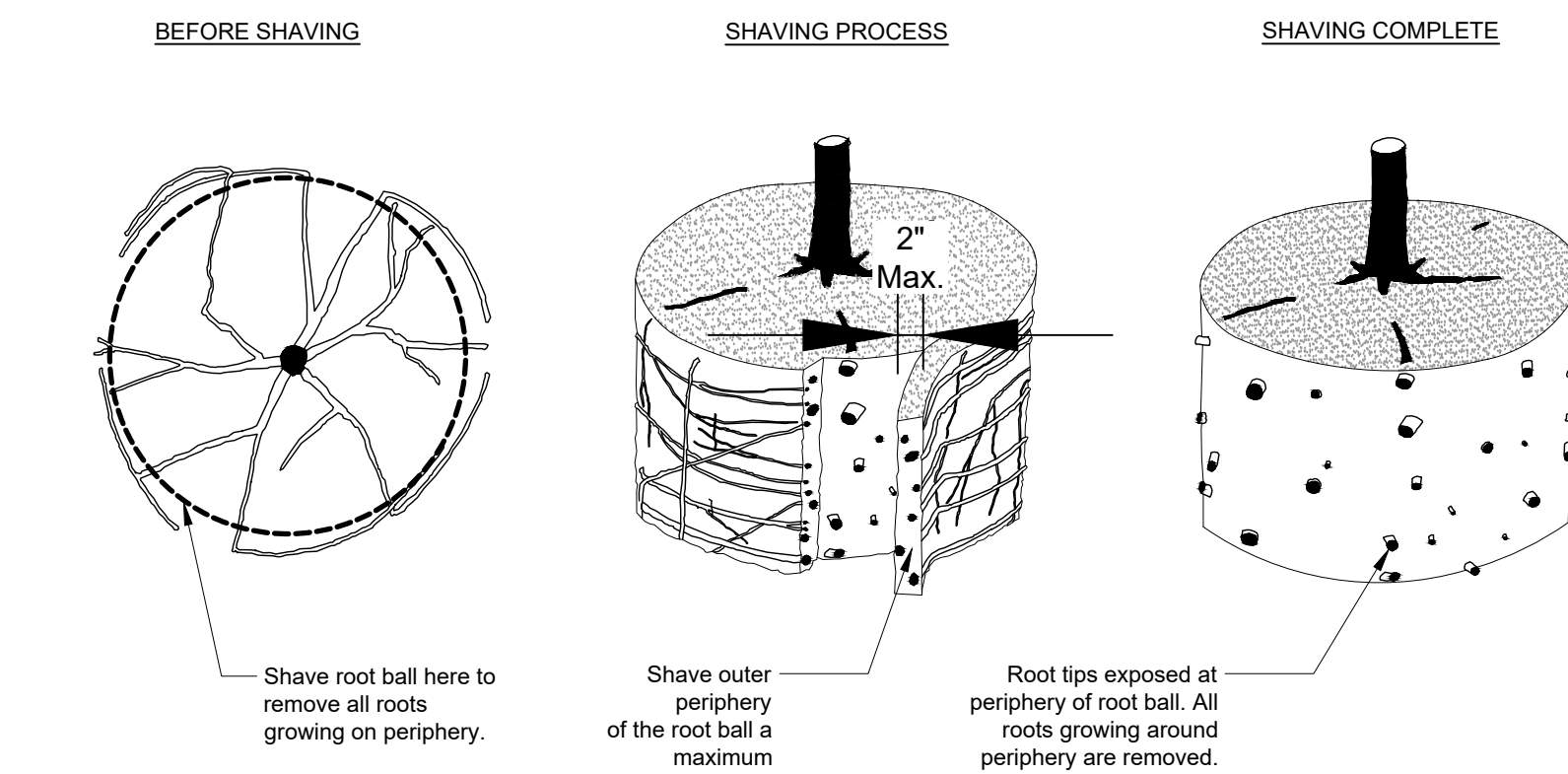
Part 3: Execution

- The littoral zone shall be inspected and monitored for one year after planting. During this one year maintenance and monitoring period, maintenance and monitoring shall occur 90, 180 and 360 days after planting. The maintenance and monitoring program shall consist of the following:
 A: Inspection, monitoring, exotic removal and replanting during each monitoring period.
 B: Complete removal of exotic and invasive plant species such as Cattails, Primrose Willows and Water Hyacinth from the planted littoral zone until the required plant species attain complete coverage of the planted littoral zone.
 C: The submittal of a monitoring report to St. Lucie County representing a time Zero monitoring, to be completed within 30 days of initial planting, ninety (90) day, one hundred eighty (180) day and three hundred sixty (360) day reports, each report submitted to SLC within 30 days of completion of the monitoring report.
 D: Each monitoring report shall assess the species, numbers, location of planted littoral shelves and multiple photographs (panoramas are preferred) of site clearly depicting the entire littoral zone planting. Photographs must be taken at approximately the same location(s) each time.
- After the first year, the land owner or entity having maintenance responsibility for the planted littoral zone shall maintain the littoral zone in the following manner:
 A minimum of eighty percent (80%) survivorship and a minimum of seventy percent (70%) coverage of the planted littoral zone is required. Exotic and invasive plants species such as Cattails, Primrose Willows and Water Hyacinth, shall be restricted to less than ten percent (10%) of the required littoral zone.



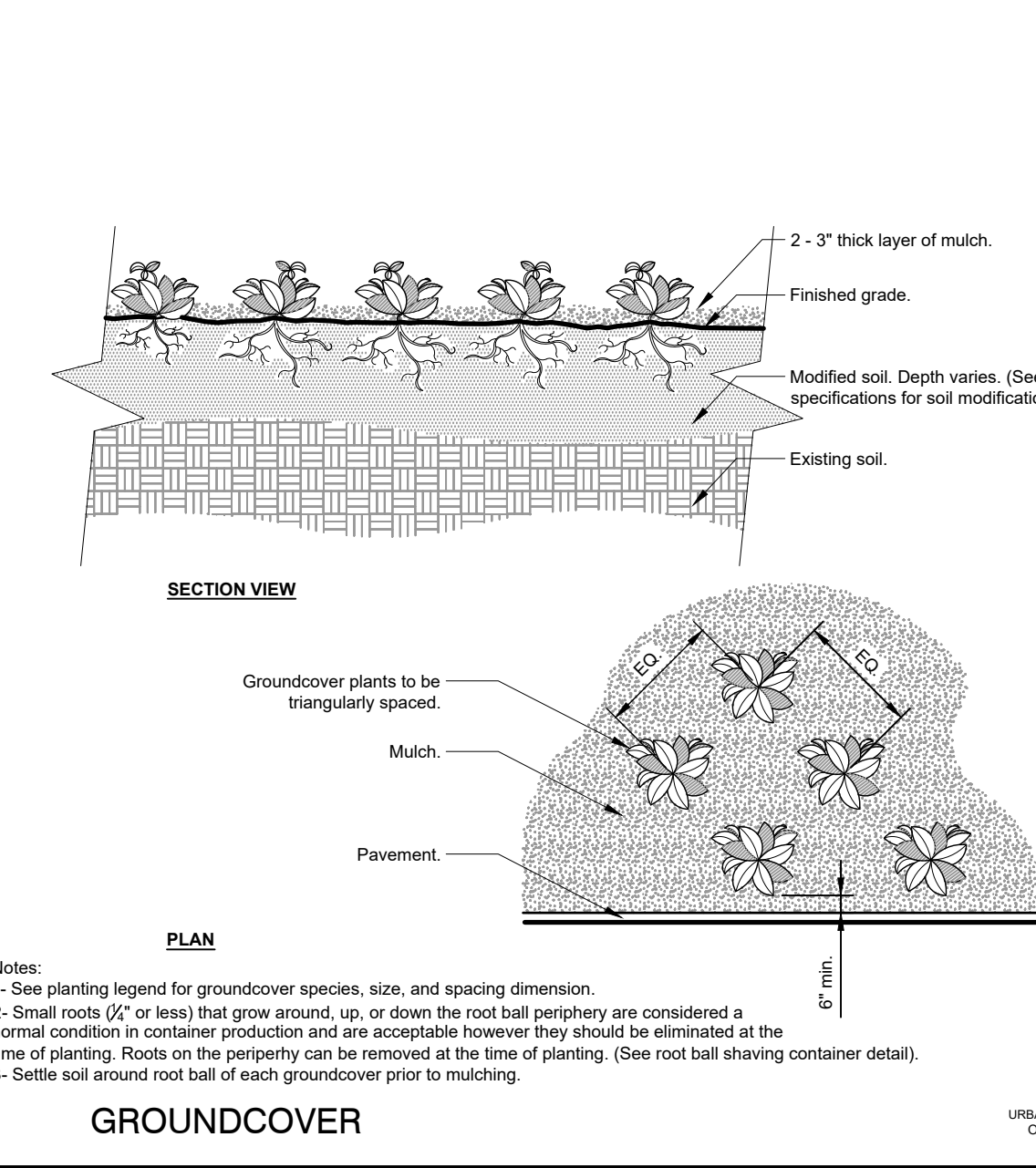
GENERAL NOTES:

- THE CONTRACTOR SHALL PERSONALLY ACQUAINT HIM/HER SELF WITH THE EXISTING SITE CONDITIONS AND THE EXTENT AND SCOPE OF WORK REQUIRED.
- THE PLANT LIST INDICATES THE NAMES, SIZES AND SPACING OF SPECIFIC PLANT MATERIALS. QUANTITIES HAVE BEEN PROVIDED TO THE CONTRACTOR AS A CONVENIENCE, THE CONTRACTOR IS RESPONSIBLE FOR HIS/HER OWN QUANTITY COUNT. IN CASE OF DISCREPANCIES BETWEEN THE DRAWINGS AND PLANT LIST, THE QUANTITIES ON THE PLANT LIST SHALL PREVAIL.
- NO SUBSTITUTES ON VARIETIES LISTED WILL BE ALLOWED WITHOUT WRITTEN APPROVAL FROM LANDSCAPE ARCHITECT.
- PLANTS SHALL BE WATERED AS NECESSARY OR WITHIN 24 HOURS AFTER NOTIFICATION BY THE LANDSCAPE ARCHITECT.
- THE LOCATIONS OF PLANTS, AS SHOWN IN THESE PLANS, ARE APPROXIMATE. THE FINAL LOCATIONS MAY BE ADJUSTED TO ACCOMMODATE UNFORESEEN FIELD CONDITIONS. MAJOR ADJUSTMENTS TO THE LAYOUT ARE TO BE APPROVED BY THE LANDSCAPE ARCHITECT OF RECORD.
- ALL PLASTIC FABRIC SHALL BE REMOVED FROM PLANT MATERIAL AT TIME OF INSTALLATION.
- ALL TREES MUST BE STAKED AS SHOWN ON THE LANDSCAPE DETAIL SHEET WITHIN 24 HRS OF PLANTING. STAKES TO REMAIN FOR A MINIMUM OF 12 MONTH BUT NO LONGER THAN 18 MONTH. CONTRACTOR RESPONSIBLE FOR MAINTENANCE AND REMOVAL OF THE STAKES.
- ALL TREES MUST BE PRUNED AS PER LANDSCAPE ARCHITECT DIRECTION.
- ALL SOD EDGES SHALL BE TRIMMED AS PER THE LANDSCAPE ARCHITECTS DIRECTION.
- ALL SHRUBS, TREES, GROUNDCOVERS, AND SOD AREAS SHALL HAVE IMPROVED SOIL AS PER PLANTING SOIL NOTES.
- WILDFLOWER AREAS SHALL BE NATIVE TOPSOIL ONLY.
- DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING.
- SOAK PLANTS IMMEDIATELY WITH WATER FOLLOWING PLANTING.
- MAINTAIN THE ORIGINAL GRADE OF THE TREE BASE.
- DO NOT BREAK ROOTBALL. SHAPE ROOTBALL OF TREES PER DETAIL BELOW.
- ALL PLANTS SHALL BE HARDY UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE ON LOCALITY OF THE PROJECT.
- THE LANDSCAPE CONTRACTOR SHALL WATER, MULCH, WEED, PRUNE, AND OTHERWISE MAINTAIN ALL PLANTS, INCLUDING SOD, UNTIL COMPLETION OF THE CONTRACT OR ACCEPTANCE BY THE LANDSCAPE ARCHITECT. SETTLED PLANTS SHALL BE RESET TO PROPER GRADE, PLANTING SAUCERS RESTORED, AND DEFECTIVE WORK CORRECTED.
- THE LANDSCAPE CONTRACTOR SHALL AT ALL TIMES KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIALS OR DEBRIS CAUSED BY THE CREWS DURING THE PERFORMANCE OF THE WORK. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL PROMPTLY REMOVE ALL WASTE MATERIALS, DEBRIS, UNUSED PLANT MATERIAL, EMPTY PLANT CONTAINERS AND ALL EQUIPMENT FROM THE PROJECT SITE.
- UPON COMPLETION OF THE WORK, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AND REQUEST A FINAL INSPECTION. ANY ITEMS THAT ARE JUDGED INCOMPLETE OR UNACCEPTABLE BY THE LANDSCAPE ARCHITECT OR REPRESENTATIVE SHALL BE PROMPTLY CORRECTED BY THE LANDSCAPE CONTRACTOR.
- THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE IN WRITING FROM THE LANDSCAPE ARCHITECT. AT THE TIME OF FINAL ACCEPTANCE THE ONE (1) YEAR PERIOD SHALL COMMENCE. ANY MATERIALS WHICH HAVE DIED DURING THIS PERIOD SHALL BE PROMPTLY REPLACED WITH SPECIMENS THAT MEET THE MINIMUM REQUIREMENTS CALLED FOR IN THE DRAWINGS. THE LANDSCAPE CONTRACTOR SHALL NOT BE HELD RESPONSIBLE FOR THE DEATH OR DAMAGE RESULTING FROM LIGHTNING, VANDALISM, AUTOMOBILES OR FROM NEGLIGENCE BY THE OWNER. CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING AND OTHERWISE MAINTAINING PLANTS DURING THE GUARANTEE PERIOD UNLESS A WRITTEN AGREEMENT WITH THE LANDSCAPE ARCHITECT PROVIDES FOR A DIFFERENT ARRANGEMENT.
- ALL LABOR AND MATERIAL FOR SOIL AMENDMENTS AND FERTILIZER THAT IS REQUIRED TO INSURE THE SUCCESSFUL ESTABLISHMENT AND SURVIVAL OF THE PROPOSED VEGETATION AS WELL AS ALL COST FOR THE REMOVAL OF UNSUITABLE OR EXCESS BACKFILL MATERIAL SHALL BE INCLUDED IN THE CONTRACTORS BID TO PERFORM THE WORK PRESENTED IN THIS PLAN SET.
- NO LANDSCAPING ADDED UNDER THIS PROJECT SHALL BE LOCATED SUCH THAT SAID LANDSCAPING OBSCURES MOTORIST'S VISIBILITY OF ANY EXISTING SIGN(S).
- 100% OF REQUIRED SHRUBS ARE DROUGHT TOLERANT.



Notes:
 1- Shaving to be conducted using a sharp blade or hand saw eliminating no more than needed to remove all roots on the periphery of root ball.
 2- Shaving can be performed just prior to planting or after placing in the hole.

ROOT BALL SHAVING CONTAINER DETAIL



Watering Schedule			
Item	Water	Month	No. of Applications
Palms	20 gal	1	12
Large Trees	30 gal	2	12
Small Trees	20 gal	3	8
Large Shrubs	10 gal	4	8
Small Shrubs	5 gal	5	5
Groundcover	5 gal		
Total Applications			45