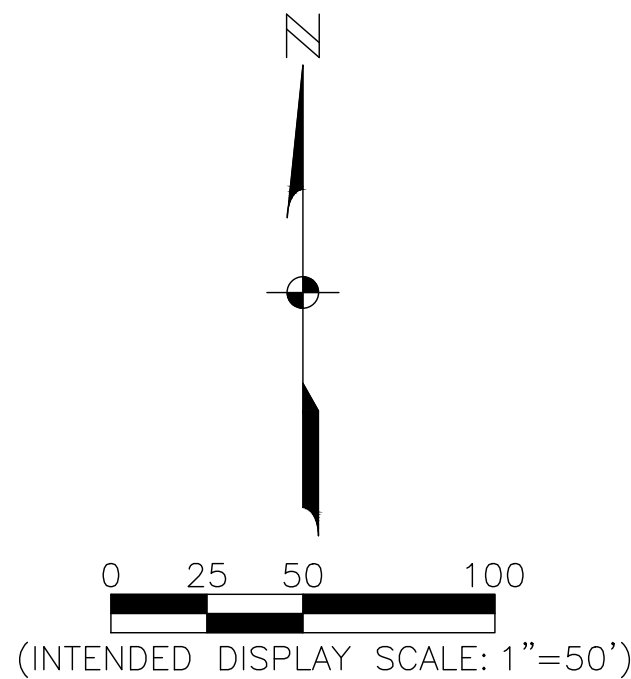


Landscape Calculations			
General Landscape Requirements		Sec. 10-425(a)	
Total Site Area		581,399 SF	= 13.35 AC
20% of Total Site Must Be Open Space		581,399 X 20% = 116,280 SF	= Open Space Required
		5.37AC = 233,920 SF	= Open Space Provided
1 Tree per 1,000 SF of Required Open Space		116,280 SF / 1000.00 SF	= 116 Trees Required
Heritage Tree Requirements		Sec. 10-416(a)(4)	
12 Heritage Trees to be removed and replaced at 1:1 ratio (see tree removal chart)		12 Trees Removed	= 12 Trees Required
12 Canopy replacement trees specified 20"ht provided per Sec. 10-416(a)(4) for 1:1 Replacement			= 12 Trees Provided
6 Existing Heritage trees to be preserved per Sec. 10-416(a)(4) at 1.5 credit ratio			= 30 Trees Provided
General Tree Requirements		Sec. 10-420(c)(2)	
Subtract 42 Heritage Tree Credits from 116 Required General Trees (116 Trees - 42 Tree Credits)			= 74 Trees Required
50% Reduction per Sec.10-420(c)(2) through use of Canopy Trees 4" Dia 6" above grade, 16' Ht			= 37 Trees Required
			= 37 Trees Provided
Buffer Requirements		Sec. 10-425(f)(1)	
5' North ROW Buffer - 5 Trees per 100 LF (Type C Buffer)		@ 1068 LF	= 54 Trees Required
			= 54 Trees Provided
5' South ROW Buffer - 5 Trees per 100 LF (Type C Buffer)		@ 796 LF	= 40 Trees Required
			= 40 Trees Provided
5' West ROW Buffer - 5 Trees per 100 LF (Type C Buffer)		@ 307 LF	= 16 Trees Required
			= 16 Trees Provided
5' Interior ROW Buffers - 5 Trees per 100 LF (Type C Buffer)		@ 1623 LF	= 82 Trees Required
			= 82 Trees Provided

Vehicle Use Area Requirements		Sec. 10-416.(c)	
10% of the Proposed Gross Vehicular Use Area:		150,920 SF x 10%	= 15,092 SF Required
			= 15,092 SF Provided
1 Tree per 250 SF of Required Area		@ 15,092 SF	= 61 Trees Required
			= 61 Trees Provided
Building Perimeter Planting Area Requirements*		Sec. 10-416.(b)	
10% of the Gross 1st Floor Area, 5' Wide Minimum		99,873 SF x 10%	= 9,987 SF Required
			= 9,987 SF Provided
Native Variety Requirement		Sec. 10-420.(b)	
75% of Trees Must be Florida Native Species		272 Trees of 290 Trees	= 94% Native
50 % of Shrubs Must be Florida Native Species		865 Shrubs of 987 Shrubs	= 88% Native

Notes:
All plant material sizes specified are considered minimum. All parts of the plant material specifications must be met for the material to be considered acceptable.
The heights of all trees and shrubs shall be measured from the final grade of the project site.
Where necessary, contractor shall install root barrier to protect sidewalks, utilities, etc. from root damage. See details on sheet L05 for specific requirements for root barrier installation.
Heritage tree credits are calculated per Sec. 10-416(a)(4).
All plant materials shall meet the minimum requirements for size & quality per sec. 10-416 & 10-420 of the Lee County Code of Ordinances to be considered acceptable.
Minimum plant specifications are as follows:
Trees: 10' Ht.; 2" cal. (dbh); 4' spd. AND (General Trees) 16' Ht.; 4" in diameter at 6" Ht. above the ground at time of planting.
Palms: 10' ct. (maintained with 8' ct. over walks & sidewalks)
Shrubs: 24" Ht.; 3 gal.; 18'-36" o.c. (36" Ht. after 1 year for shrubs used as a screen)
Street Trees: 10'-12' Ht; 3"-4" cal. (12" above grade)
Heritage Tree Replacements: 20' Ht. within an appropriate open space area.



PROPOSED LANDSCAPE LEGEND

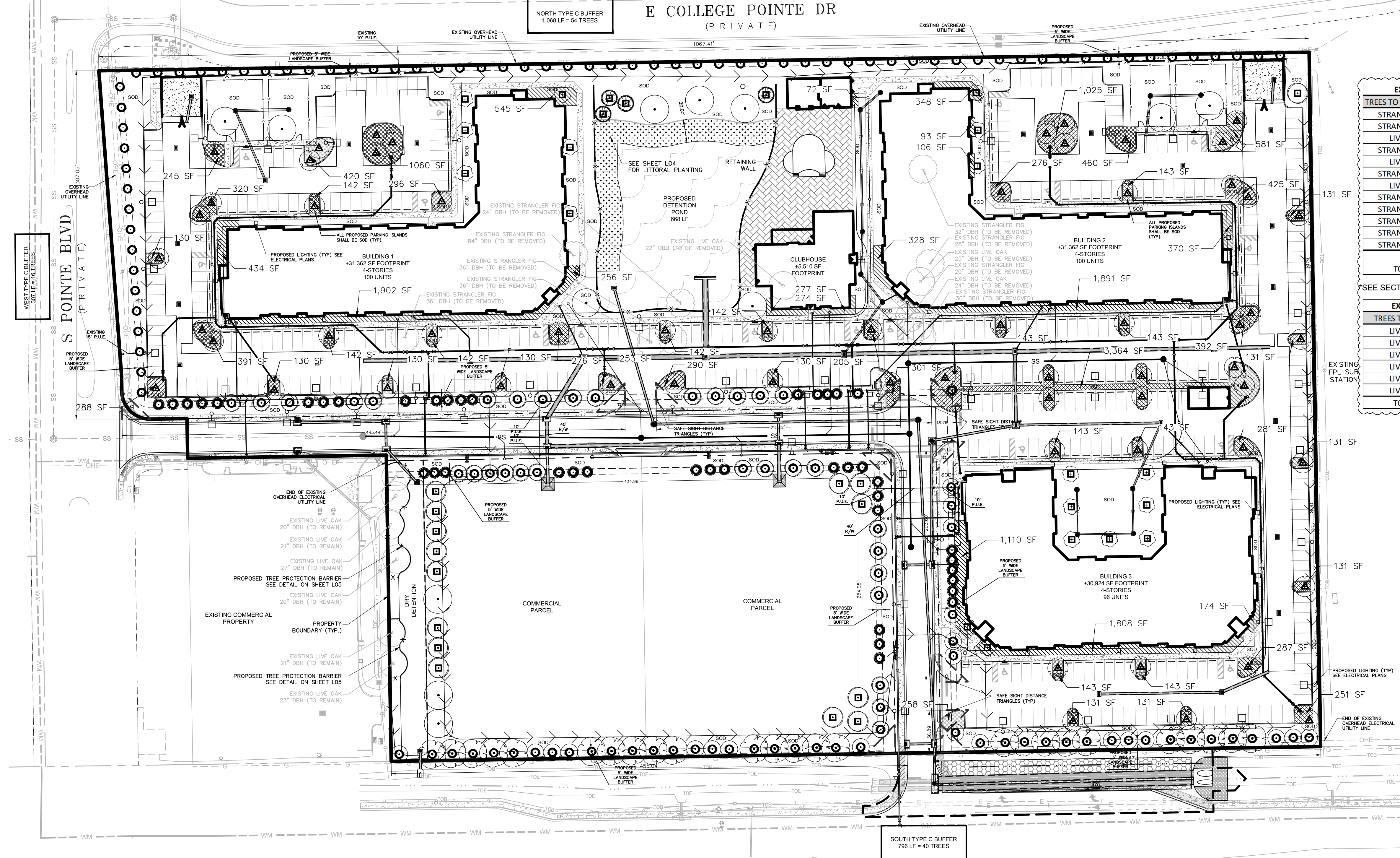
- ▲ VEHICULAR USE AREA CODE REQUIRED TREES
- BUFFER AREA CODE REQUIRED TREES
- GENERAL CODE REQUIRED TREES

LANDSCAPE CODE AREAS	
	VEHICLE USE PLANTING AREA
	BUILDING PERIMETER PLANTING AREA

EXISTING HERITAGE TREE REMOVAL CALCULATIONS		
TREES TO BE REMOVED	CALIPER (INCHES)	1:1 REPLACEMENT RATIO
STRANGLER FIG	32	1 Trees
STRANGLER FIG	28	1 Trees
LIVE OAK	25	1 Trees
STRANGLER FIG	20	1 Trees
LIVE OAK	24	1 Trees
STRANGLER FIG	30	1 Trees
LIVE OAK	22	1 Trees
STRANGLER FIG	24	1 Trees
STRANGLER FIG	36	1 Trees
STRANGLER FIG	36	1 Trees
STRANGLER FIG	84	1 Trees
STRANGLER FIG	36	1 Trees
TOTAL:	397	12 HERITAGE TREES TO BE REPLACED

EXISTING HERITAGE TREE TO REMAIN CALCULATIONS		
TREES TO REMAIN	CALIPER (INCHES)	1:5 GENERAL TREE RATIO
LIVE OAK	20	5 Trees
LIVE OAK	21	5 Trees
LIVE OAK	27	5 Trees
LIVE OAK	20	5 Trees
LIVE OAK	21	5 Trees
LIVE OAK	23	5 Trees
TOTAL:	132	30 Trees

SEE SECTION 10-416(a)(4) FOR HERITAGE TREE REQUIREMENTS.

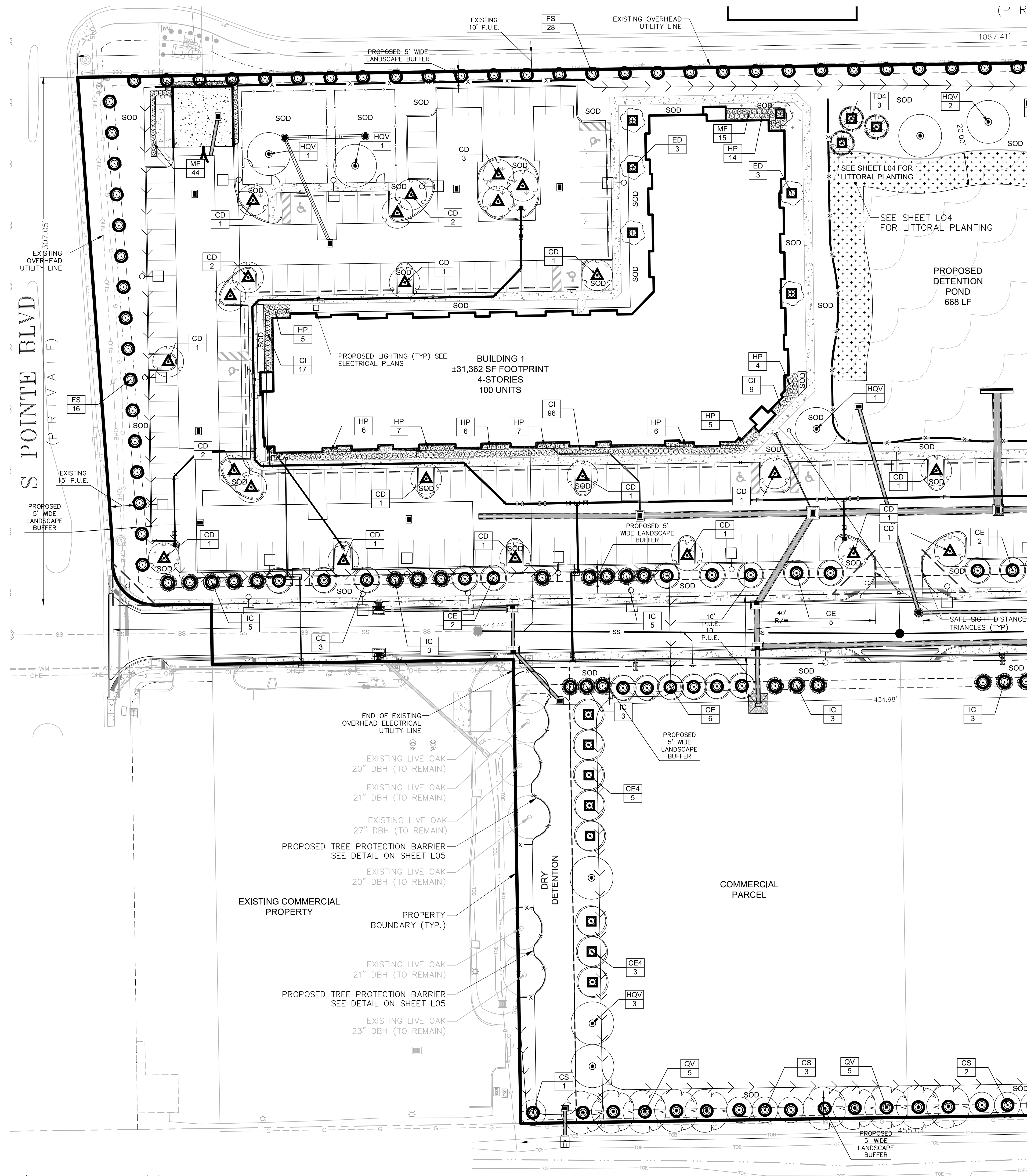



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REVISIONS		DATE	DESCRIPTION
NO.	DATE	DESCRIPTION	
1	07/28/21	LEE COUNTY RAI #1	
2	11/05/21	LEE COUNTY RAI #2	


DATE:	JUNE 2021
PROJECT NO.	2019125-000
FILE NO.	15-45-24
SCALE:	As Shown



 VEHICULAR USE AREA CODE REQUIRED TREES

 BUFFER AREA CODE REQUIRED TREES

 GENERAL CODE REQUIRED TREES

 3

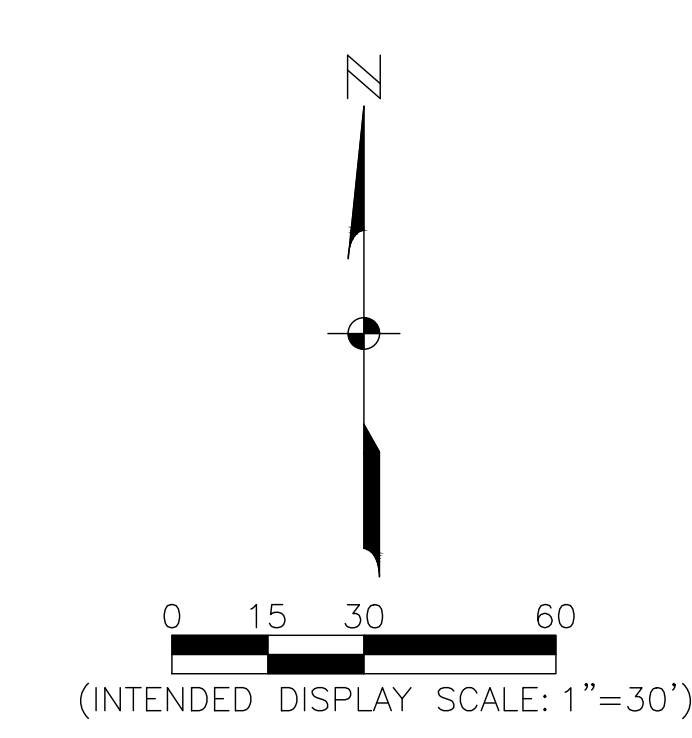
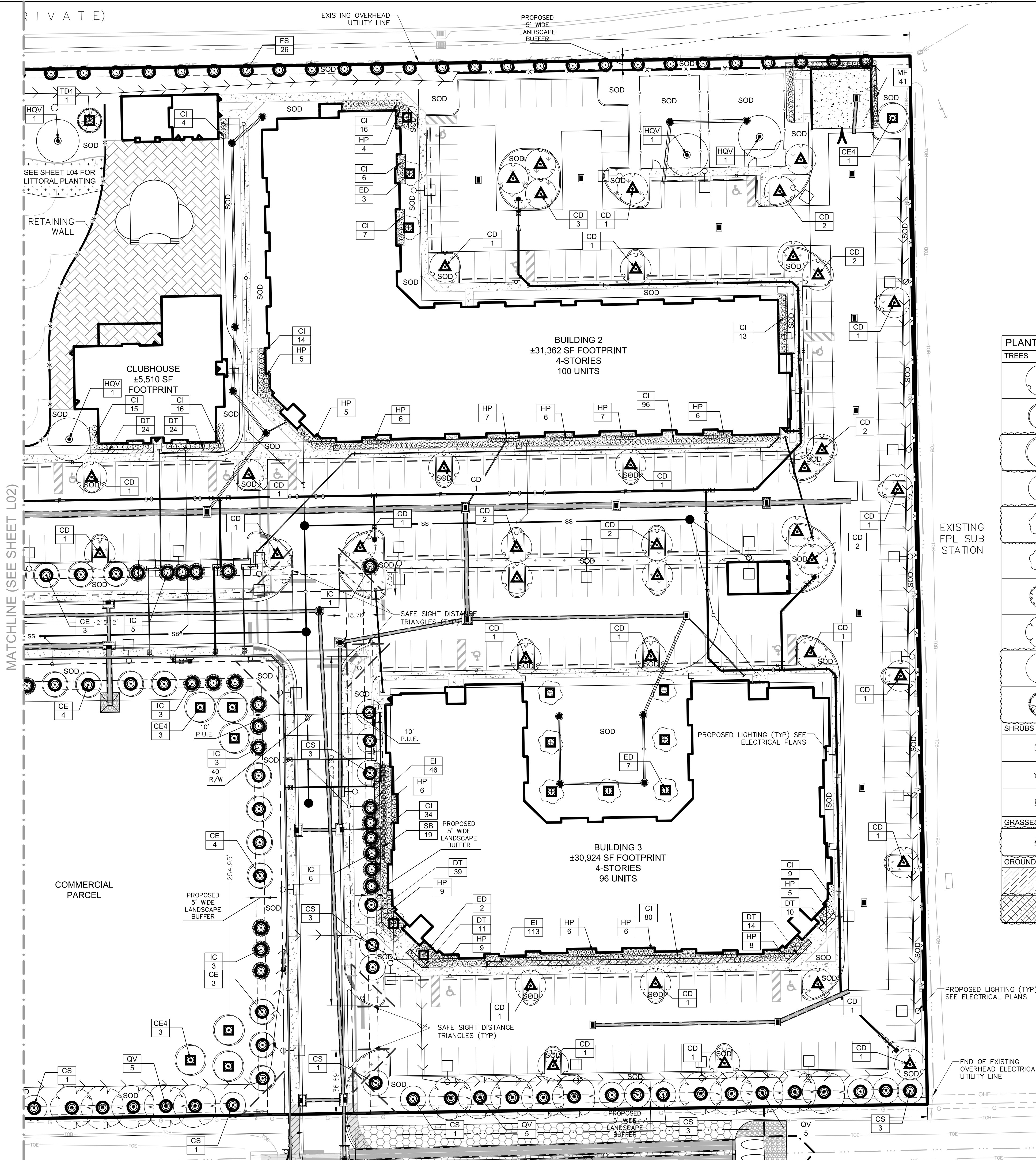
PLANT KEY		*SEE SHEET L04 FOR COMPLETE SCHEDULE.	
TREES	CODE	BOTANICAL NAME	COMMON NAME
	CD	Coccoloba diversifolia	Pigeon Plum
	CE	Conocarpus erectus	Green Buttonwood
	CE4	Conocarpus erectus	Green Buttonwood
	CS	Conocarpus erectus 'Sericeus'	Silver Buttonwood
	ED	Elaeocarpus decipiens	Japanese Blueberry Tree
	FS	Forestiera segregata	Florida Privet
	IC	Ilex cassine	Dahoon Holly
	QV	Quercus virginiana	Live Oak
	HQV	Quercus virginiana	Live Oak Heritage Tree Replacement
	TD4	Taxodium distichum	Bald Cypress
SHRUBS	CODE	BOTANICAL NAME	COMMON NAME
	CI	Chrysobalanus icaco 'Red Tip'	Red Tip Cocoplum
	HP	Hamelia patens 'Compacta'	Dwarf Firebush
	MF	Myrcianthes fragrans	Simpson's Stopper
GRASSES	CODE	BOTANICAL NAME	COMMON NAME
	SB	Spartina bakeri	Sand Cord Grass
GROUND COVERS	CODE	BOTANICAL NAME	COMMON NAME
	DT	Dianella tasmanica 'Blueberry'	Blueberry Flax Lily
	EI	Ernodea littoralis	Golden Creeper

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PROPOSED LANDSCAPE LEGEND

△ VEHICULAR USE AREA CODE REQUIRED TREES

○ BUFFER AREA CODE REQUIRED TREES

□ GENERAL CODE REQUIRED TREES

*SEE SHEET L04 FOR COMPLETE SCHEDULE.			
TREES	CODE	BOTANICAL NAME	COMMON NAME
	CD	Coccoloba diversifolia	Pigeon Plum
	CE	Conocarpus erectus	Green Buttonwood
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	FS	Forestiera segregata	Florida Privet
	IC	Ilex cassine	Dahoon Holly
	QV	Quercus virginiana	Live Oak
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	SB	Spartina bakeri	Sand Cord Grass
GROUND COVERS	CODE	BOTANICAL NAME	COMMON NAME
	DT	Dianella tasmanica 'Blueberry'	Blueberry Flax Lily
	EI	Ernodea littoralis	Golden Creeper

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JEFFREY NAGLE, R.L.A.
FL License No. LA-6667059

ZIMMER DEVELOPMENT
COMPANY

INSPIRATION AT SOUTH POINTE
LEE COUNTY, FLORIDA

DATE	07/28/21
DESCRIPTION	LEE COUNTY RAI #1
NO.	11/05/21
DESCRIPTION	LEE COUNTY RAI #2

DATE:	JUNE 2021
PROJECT NO.	2019125-000
FILE NO.	15-45-24
SCALE:	As Shown

LANDSCAPE CODE
PLAN
ENLARGEMENT

SHEET NUMBER

L03

REVISIONS

NO.	DATE	DESCRIPTION
1	07/28/21	LEE COUNTY RAI #1
2	11/05/21	LEE COUNTY RAI #2

DATE: JUNE 2021
PROJECT NO. 20191215-000
FILE NO. 15-45-24
SCALE: As Shown

LANDSCAPE PLANT
SCHEDULE &
LITTORAL DETAILS

SHEET NUMBER

L04

PLANT SCHEDULE CODE PLAN

3	TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	HT		REMARKS
		CD	61	Coccoloba diversifolia	Pigeon Plum	10' Ht, 4' Sprd., 2" Cal. Std.		Native
		CE	32	Conocarpus erectus	Green Buttonwood	10' Ht, 4' Sprd., 2" Cal. Std.		Native
		CE4	15	Conocarpus erectus	Green Buttonwood	16' Ht., 4" Cal		Native
		CS	22	Conocarpus erectus `Sericeus`	Silver Buttonwood	10' Ht, 4' Sprd., 2" Cal. Std.		Native
		ED	18	Elaeocarpus decipiens	Japanese Blueberry Tree	16' Ht., 4" Cal		Non-Native
		FS	70	Forestiera segregata	Florida Privet	10' Ht, 4' Sprd		Native
		IC	43	Ilex cassine	Dahoon Holly	10' Ht, 4' Sprd., 2" Cal. Std.		Native
		QV	25	Quercus virginiana	Live Oak	10' Ht, 4' Sprd., 2" Cal. Std.		Native
3		HQV	12	Quercus virginiana	Live Oak Heritage Tree Replacement	20' Ht, Min		Native
		TD4	4	Taxodium distichum	Bald Cypress	16' Ht., 4" Cal		Native
3 1	SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	HT	SPACING	REMARKS
		CI	432	Chrysobalanus icaco `Red Tip`	Red Tip Cocoplum	24" Ht	36" o.c.	Native
		HP	155	Hamelia patens `Compacta`	Dwarf Firebush	24" Ht	36" o.c.	Native
		MF	100	Myrcianthes fragrans	Simpson's Stopper	24" Ht	36" o.c.	Native
3 1	GRASSES	CODE	QTY	BOTANICAL NAME	COMMON NAME	HT	SPACING	REMARKS
		SB	19	Spartina bakeri	Sand Cord Grass	24" Ht	36" o.c.	Native
	GROUND COVERS	CODE	QTY	BOTANICAL NAME	COMMON NAME	HT	SPACING	REMARKS
3 1		DT	122	Dianella tasmanica `Blueberry`	Blueberry Flax Lily	10" Ht.	24" o.c.	Non-Native
		EI	159	Ernodea littoralis	Golden Creeper	10" Ht.	24" o.c.	Native

Note:

- All plant material sizes are considered minimum and shall meet the minimum requirements for size & quality per sec. 10-420 of the Lee County Code of Ordinances to be considered acceptable.
- Where necessary contractor shall install root barrier to protect sidewalks, utilities, etc. from root damage. See details for specific requirements for root barrier installation.
- All pervious areas without landscape shall be sodded with St. Augustine 'Floritam' unless otherwise directed by owner or owners representative.

DESCRIPTION	QTY
SOD, Floritam St. Augustine in All Areas Specified on Plan	220,487 SF
Shredded Hardwood Mulch, 2" Depth in Proposed Plant Beds	85 CY

LITTORAL PLANTING REQUIREMENT

SURFACE WATER MANAGEMENT SYSTEMS PER LDC SEC10-418:

Littoral shelf calculations per LC LDC Sec10-418(2)
25% of lake perimeter shall be littoral shelf at 20' width from control elevation outward extending to no less than 2' below control elevation. Littoral shelf area shall be divided by 4 to obtain require littoral plant quantities.

PROPOSED LAKE PERIMETER = 636'
 $636' \times 25\% = 159'$
 $159' \times 20' = 3,180$ SF LITTORAL SHELF REQUIRED
 $3,180 / 4 = 795$ LITTORAL PLANTS REQUIRED

PROPOSED LAKE PERIMETER = 636'
PROPOSED BULKHEAD LENGTH = 465' (73% OF LAKE PERIMETER)
COMPENSATORY LITTORAL ZONE = $465' \times 5' = 2,325$ SF OF ADDITIONAL LITTORAL SHELF NEEDED
 $2,325$ SF / $2 = 1,163$ ADDITIONAL LITTORAL PLANTS NEEDED
REQUIRED LITTORAL SHELF + COMPENSATORY LITTORAL SHELF = $3,180$ SF + $2,325$ SF = $5,505$ SF TOTAL
REQUIRED PLANT QUANTITIES + COMPENSATORY PLANT QUANTITIES = $795 + 1,163 = 1,958$ TOTAL

NOTES:

- THE MINIMUM REQUIRED NUMBER OF NATIVE WETLAND HERBACEOUS PLANTS IS BASED ON THE PLANT PER SQUARE FOOT SPACING PER SPACING SHOWN ABOVE. (LEE COUNTY ORDINANCE 10-418).
- CLUSTERS MUST CONTAIN A MINIMUM OF 25 PLANTS WITHIN A 50-SQUARE-FOOT AREA.
- AT LEAST FOUR SPECIES FROM TYPICAL LITTORAL PLAN SAMPLE PROVIDED MUST BE PLACED.
- MINIMUM REQUIRED HERBACEOUS PLANT SIZE IS A TWO-INCH CONTAINER, REFERRED TO AS A LINER.
- TYPICALS ARE TO ENSURE DESIGN INTENT ONLY
- FINAL PLANTING LOCATIONS TO BE DELINEATED BY LANDSCAPE ARCHITECT.

NOTICE TO ALL
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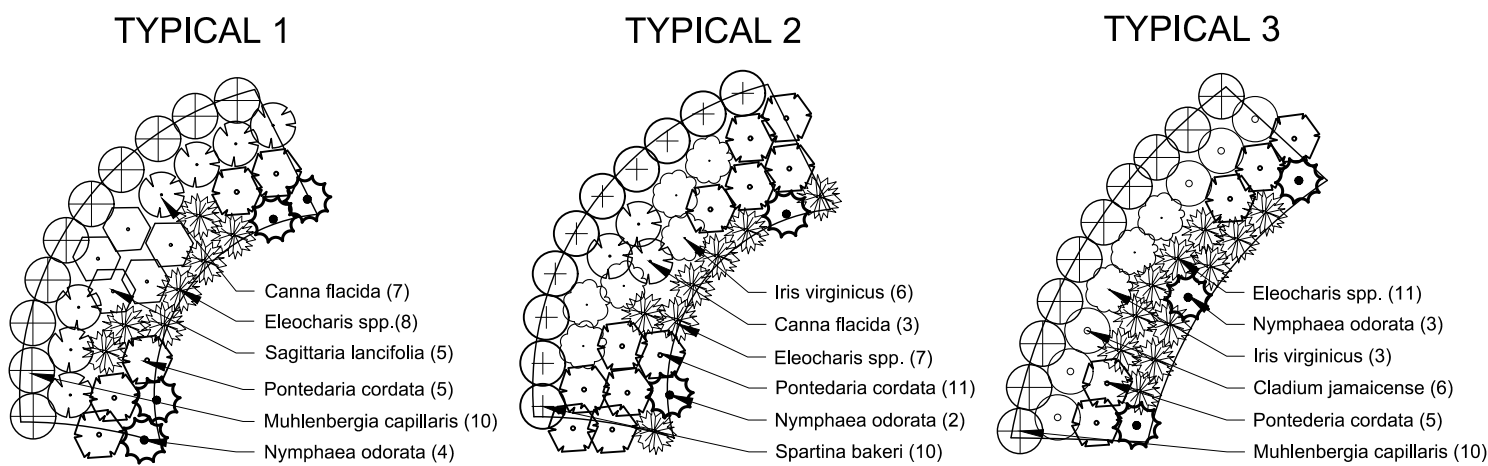
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LITTORAL ZONE PLANTS

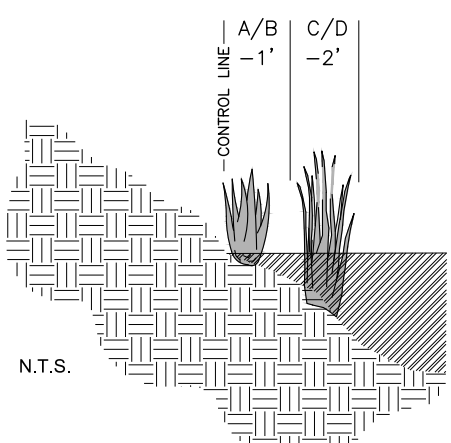
CONTRACTOR TO PLANT LITTORAL SHELF WITH SPECIES AND QUANTITIES CONSISTENT WITH PROVIDED 100 SQ.FT. LITTORAL PLANTING SAMPLE. TYP. 1, OR TYP. 2, OR TYPE 3 AND TO USE PLANTING ELEVATION DETAIL TO DETERMINE WHICH PLANT TO USE AT WHICH ELEVATION ON SLOPE OF BANK.
PLANT TYPE "A" SHALL NOT BE USED FOR THIS PROJECT.



TYPICAL 100 S.F LITTORAL ZONE PLANTINGS
N.T.S.

ACCEPTABLE LITTORAL ZONE PLANT LIST
COMMON NAME | SCIENTIFIC NAME | SIZE/HEIGHT | ZONE

SOFT RUSH	Juncus effusus	2" LINERS / 12"	A,B
BLUE FLAG IRIS	Iris virginicus	2" LINERS / 12"	A,B
GOLDEN CANNIA	Canna flacida	2" LINERS / 12"	A,B
SAW GRASS	Cladium jamaicense	2" LINERS / 12"	B
ARROWHEAD	Sagittaria lancifolia	2" LINERS / 12"	B
PICKEREL WEED	Pontederia cordata	2" LINERS / 12"	B,C
SPIKE RUSH	Eleocharis spp.	2" LINERS / 12"	C
FRAGRANT WATER LILY	Nymphaea odorata	1 GALLON POT	C,D



ZONE A/B: CONTROL LINE OF LAKE TO 1' = 979 PLANTS
ZONE C/D: -1' to -2' BELOW CONTROL LINE OF LAKE = 979 PLANTS

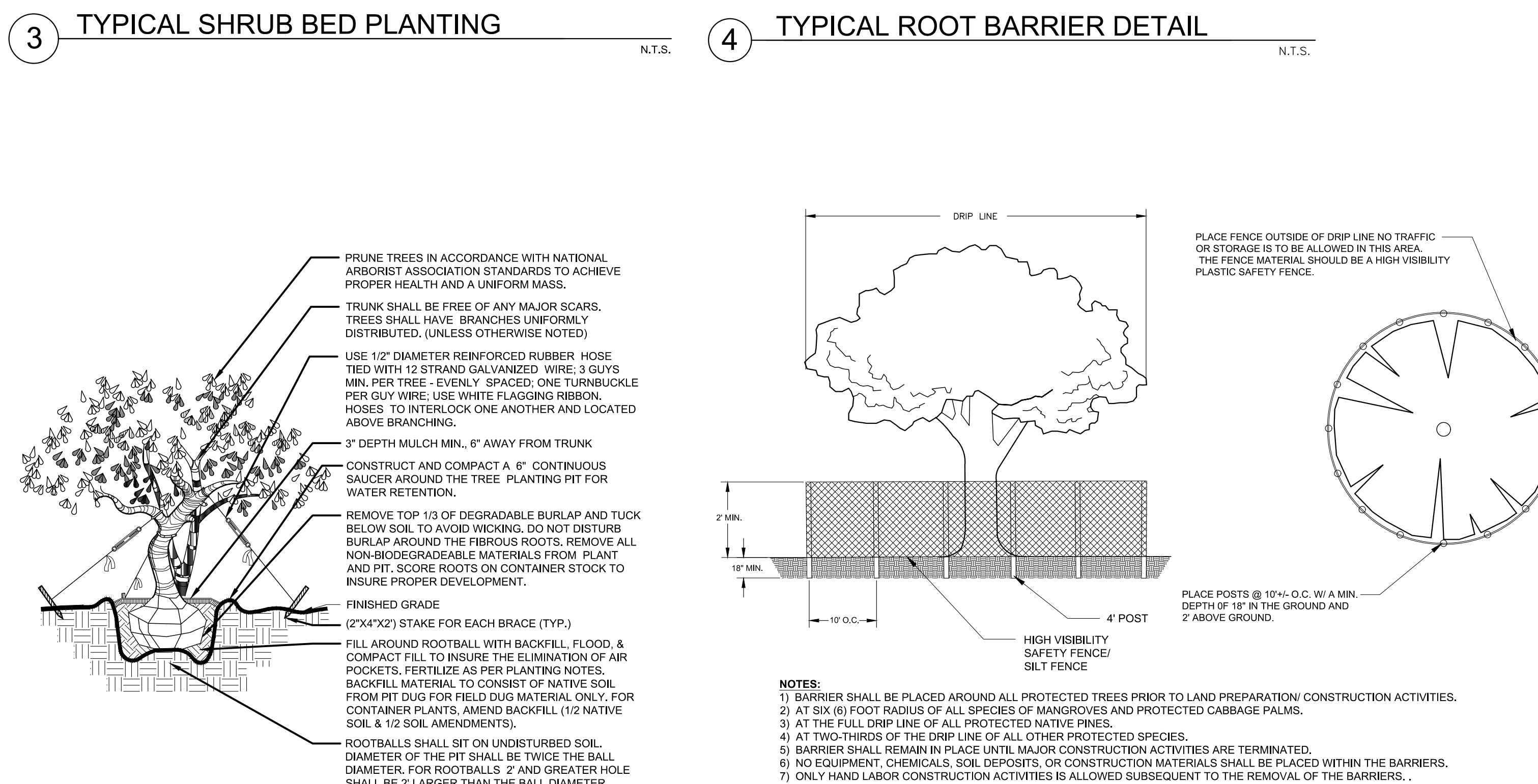
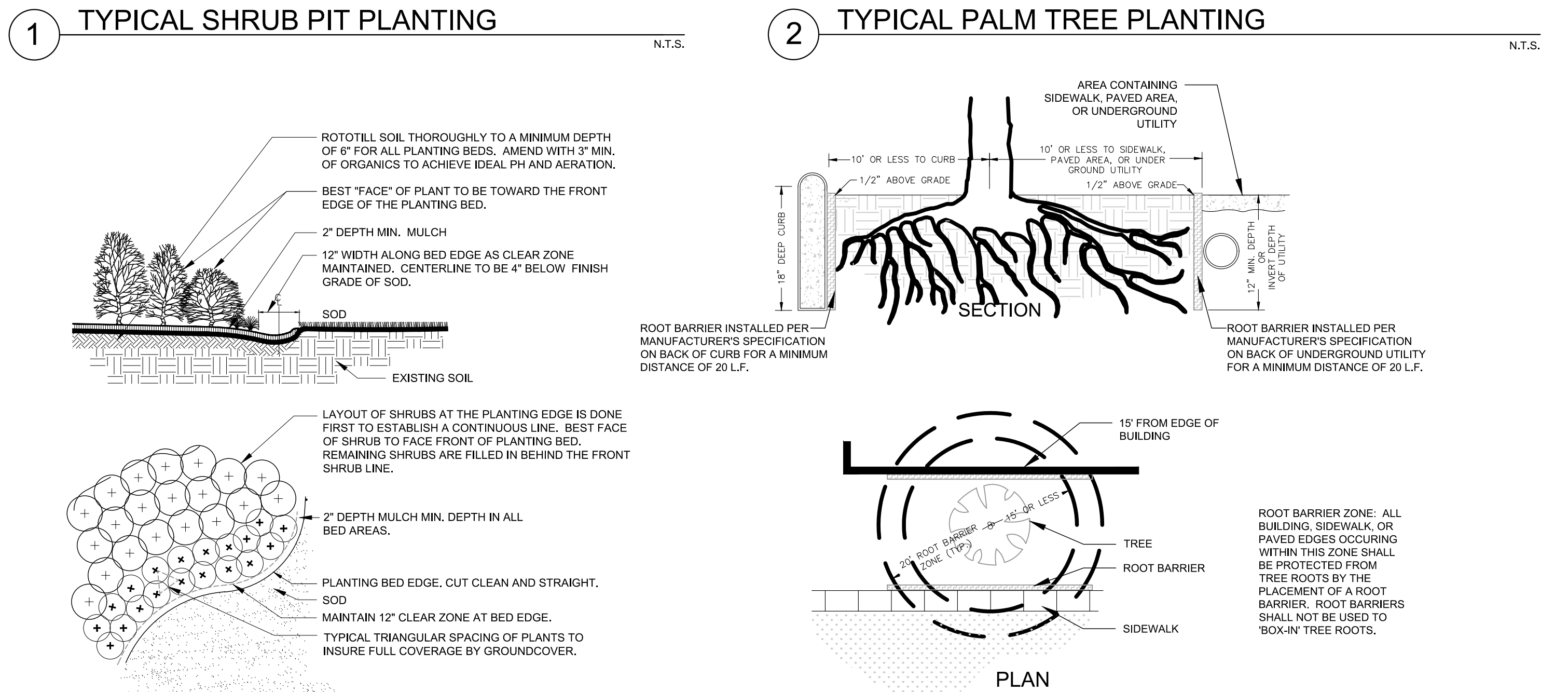
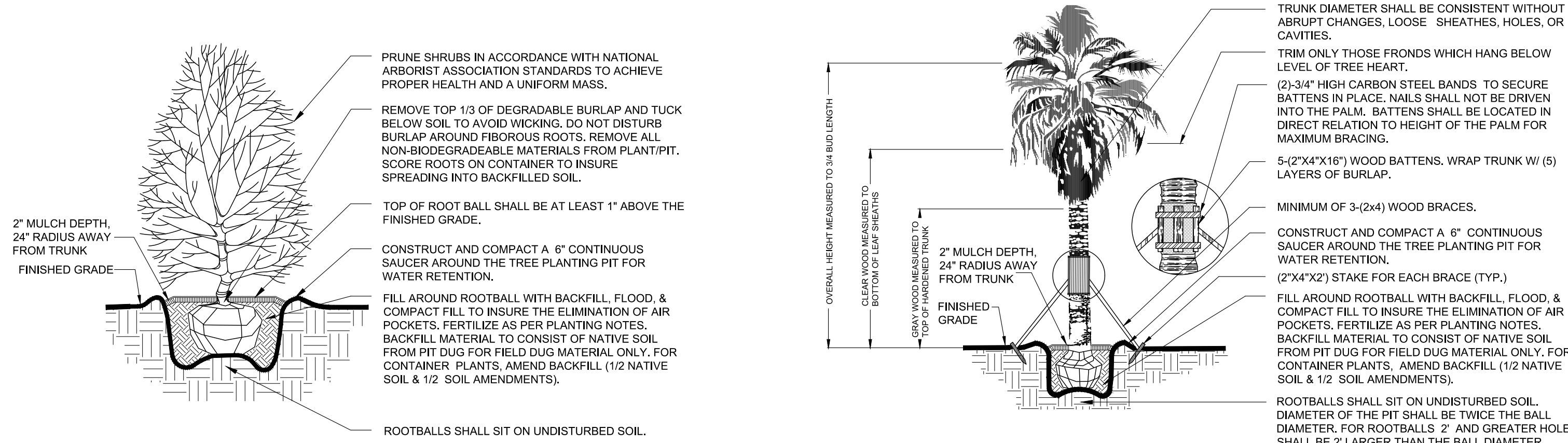
PLANTING ELEVATION DETAIL
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1 TYPICAL LITTORAL ZONE PLANTINGS

NOTES:

- THE MINIMUM REQUIRED NUMBER OF NATIVE WETLAND HERBACEOUS PLANTS IS BASED ON A TWO FOOT SPACING OR 4 SQ.FT. PER PLANT IN A 20 FOOT WIDE LITTORAL SHELF WHICH LENGTH IN TOTAL IS EQUAL TO 25% OF THE LENGTH OF LAKE PERIMETER, LEE COUNTY ORDINANCE 10-418).
- CLUSTERS MUST CONTAIN A MINIMUM OF 25 PLANTS WITHIN A 50-SQUARE-FOOT AREA.
- AT LEAST FOUR SPECIES FROM TYPICAL LITTORAL PLAN SAMPLE PROVIDED MUST BE PLACED.
- MINIMUM REQUIRED HERBACEOUS PLANT SIZE IS A TWO-INCH CONTAINER, REFERRED TO AS A LINER.
- TYPICALS ARE TO ENSURE DESIGN INTENT ONLY
- FINAL PLANTING LOCATIONS TO BE DELINEATED BY LANDSCAPE ARCHITECT.
- USE A MINIMUM OF 3 PLANTING CONFIGURATIONS PER LAKE TO ENSURE PLANT DIVERSITY (SEE ABOVE TYPICALS FOR LITTORAL PLANTING EXAMPLES)



SPECIFICATIONS

PLANT MATERIALS: ALL TREES, PALMS, SHRUBS, GROUNDCOVERS, LITTORALS, WATER PLANTS, SOD AND VINES SHALL CONFORM TO THOSE SPECIES AND SIZES INDICATED ON THE DRAWINGS. ALL NURSERY STOCK SHALL BE IN ACCORDANCE WITH GRADES AND STANDARDS FOR NURSERY PLANTS AS DETERMINED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES. UNLESS SPECIFIED OTHERWISE, ALL PLANTS SHALL BE FLORIDA GRADE NUMBER 1 OR BETTER AS DETERMINED BY THE FLORIDA DIVISION OF PLANT INDUSTRY. SPECIMEN MEANS A PLANT THAT IS TRAINED IN ITS DEVELOPMENT TO POSSESS UNQUESTIONABLE AND OUTSTANDINGLY SUPERIOR IN FORM, BRANCHING, COMPACTNESS AND SYMMETRY. TREES FOR PLANTING ROWS SHALL BE UNIFORM IN SIZE AND SHAPE. SINGLE TRUNK TREES SHALL HAVE A STRAIGHT, CENTRAL LEADER. MULTI-TRUNK TREES ARE TO HAVE 3-5 EQUAL SIZED TRUNKS UNLESS OTHERWISE SPECIFIED. PLANTS WITH MARRED OR BURNED TRUNKS WILL NOT BE ACCEPTED. PLANTS SHALL BE PRUNED PRIOR TO DELIVERY ONLY IN ACCORDANCE WITH INTERNATIONAL SOCIETY OF ARBORIST GUIDELINES TO INSURE PROPER HEALTH AND VIGOROUS GROWTH. ALL MATERIALS SHALL BE SUBJECT TO OWNER OR OWNERS REPRESENTATIVE APPROVAL.

BALLED & BURLAPPED: ALL BALLED & BURLAPPED STOCK SHALL BE FRESHLY DUG, SOUND, HEALTHY, VIGOROUS, WELL-BRANCHED, FREE FROM DISEASE AND INSECTS. SECURE IN THE ROOTBALL, AND POSSESS ADEQUATE ROOT SYSTEMS. ALL BURLAP SHALL BE REMOVED FROM THE TOP ONE-THIRD OF THE BALL TO PREVENT WICKING. ANY BURLAP THAT IS NOT BIODEGRADABLE SHALL BE CAREFULLY REMOVED TO PROTECT DAMAGE TO FEEDER ROOTS. GROW BAGS SHALL BE REMOVED IN THEIR ENTIRETY. ALL BALLED & BURLAPPED STOCK THAT IS NOT IMMEDIATELY PLANTED, SHALL BE HEALED IN AND THOROUGHLY WATERED UNTIL PLANTING. LIFTING, MOVING, OR ADJUSTING THE PLANT MATERIAL BY THE TRUNK IS PROHIBITED.

CONTAINER GROWN STOCK: ALL CONTAINER GROWN STOCK SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED (NOT ROOT BOUND), AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS OF GOOD QUALITY AND BE IN A HEALTHY GROWING CONDITION. ALL CONTAINER GROWN STOCK THAT IS NOT IMMEDIATELY PLANTED, SHALL BE STORED IN A MANNER TO SHADE THE CONTAINERS FROM DIRECT SUNLIGHT TO MINIMIZE ROOT DAMAGE. ALL CONTAINER STOCK SHALL BE THOROUGHLY WATERED PRIOR TO PLANTING AND DURING STORAGE UNTIL PLANTING. LIFTING AND MOVING OF THE PLANT MATERIAL SHALL BE BY THE CONTAINER ONLY.

MEASUREMENTS: TREES SHALL BE MEASURED IN ACCORDANCE WITH MOST CURRENT AMERICAN NURSERYMAN STANDARDS FLORIDA GRADES AND STANDARDS UNLESS OTHERWISE NOTED BY JURISDICTIONAL AGENCIES.

PLANTING SOIL AND BACKFILL: PLANTING SOIL FOR USE IN PREPARING BACKFILL FOR PLANT PITS SHALL BE A FERTILE, FRIABLE, NATIVE SOIL WITHOUT MIXTURE OF SUBSOIL MATERIALS. IT SHALL BE FREE FROM HEAVY CLAY, STONES, LIME, LUMPS, PLANTS, ROOTS OR OTHER FOREIGN MATERIALS. NOXIOUS GRASSES OR WEEDS. IT SHALL NOT CONTAIN TOXIC SUBSTANCES WHICH MAY BE HARMFUL TO PLANT GROWTH. AMEND BEDS WITH 3" MINIMUM OF ORGANICS TO ACHIEVE OPTIMAL PH LEVELS AND SOIL AERATION. ROTOTILL TO A DEPTH OF 6" AND INCORPORATE A COMPLETE SLOW RELEASE FERTILIZER AT A 3-1-2 RATIO. THE RESULTS OF POST SOIL MODIFICATION TESTING, BASED ON LIKE PLANTING CONDITIONS AND AREA PROXIMITY, SHALL BE SUBMITTED TO OWNER OR OWNERS REPRESENTATIVE FOR APPROVAL PRIOR TO PLANTING.

COMMERCIAL FERTILIZER: FERTILIZERS SHALL BE UNIFORM IN COMPOSITION, DRY, AND FREE FLOWING AND DELIVERED TO THE SITE IN ORIGINAL UNOPENED BAGS BEARING ALL THE MANUFACTURER'S LABELS. ALL FERTILIZER IS TO BE SLOW RELEASE AND COMPLETE WITH NECESSARY MICRONUTRIENTS. AFTER INSTALLATION, FERTILIZER SHALL BE CLEANED FROM ALL HARDSCAPE SURFACES AND WATERED IN THOROUGHLY PER MANUFACTURER'S SPECIFICATIONS. TREES AND SHRUBS MIXTURE SHALL CONSIST OF A SLOW RELEASE THE FORMULATION OF 3 PARTS NITROGEN TO 1 PART PHOSPHORUS TO 2 PARTS POTASSIUM (3-1-2 RATIO). ALL TREES AND SHRUBS SHALL BE FERTILIZED BI MONTHLY DURING THE GROWING SEASON AT A RATE OF 4-6 LBS. OF A PER 100 SQ. FT. OF BEDS / TREE CANOPY (3' FORM BASE TO DRIPLENE) OR PER MANUFACTURE'S RECOMMENDATION. SOD FERTILIZER SHALL BE TURF SPECIFIC FOR ESTABLISHING NEW LAWNS AND APPLIED PER MANUFACTURE'S RECOMMENDATION. UPON ESTABLISHMENT, THE TURF SHALL BE FERTILIZED AT A RATE OF 1 LB OF ACTUAL NITROGEN PER 1000 FT. SQ. OR PER MANUFACTURE'S RECOMMENDATION. (NOTE: BAHIA TURF SHALL RECEIVE FERTILIZATION AT A HALF RATE OF THE ABOVE TURF RECOMMENDATIONS.) APPLY A 1/2 LBS. OF A PALM SPECIFIC (1 PART NITROGEN TO 1 PART POTASSIUM WITH 0.3 PARTS MAGNESIUM) FERTILIZER QUARTERLY FOR ALL ESTABLISHED PALMS PER 2' OF HEIGHT OR PER MANUFACTURE'S RECOMMENDATION.

MULCH: MULCH MATERIAL SHALL BE GRADE 'A' SHREDDED HARDWOOD MULCH, FREE FROM WEED SEEDS, AND APPLIED TO A MINIMUM 2" DEPTH UNLESS NOTED ON PLAN. CYPRESS MULCH IS NOT ACCEPTABLE.

SOD: ALL SOD SHALL MEET FLORIDA STATE PLANT BOARD SPECIFICATIONS, ABSOLUTELY TRUE TO VARIETY TYPE, AND FREE FROM WEEDS, INSECTS, AND DISEASES OF ANY KIND. JOINTS SHALL BE STAGGERED AND BUTT JOINTS MINIMIZED. THE GRASS TO BE SMOOTH, FREE OF DEBRIS, POSITIVELY DRAINED, AND MOIST TO SOD INSTALLATION. THE SOD SHALL BE ROLLED IN TWO DIRECTIONS PERPENDICULAR FROM ONE ANOTHER AFTER INSTALLATION TO ENSURE PROPER GROUND CONTACT. IN AREAS WHERE A ROLLER CANNOT BE USED, HAND TAMPING SHALL BE REQUIRED. SOD SHALL BE INSTALLED AND WATERED WITHIN 24 HOURS AFTER HARVESTING.

SUBSTITUTIONS: NO SUBSTITUTION OF ANY MATERIALS' VARIETIES, GRADES, OR SIZES SHALL BE ALLOWED WITHOUT WRITTEN AUTHORIZATION FROM OWNER OR OWNERS REPRESENTATIVE. ANY / ALL UNAUTHORIZED SUBSTITUTIONS MAY REQUIRE REPAIRING / REPLACING AT THE CONTRACTOR'S EXPENSE AT OWNER OR OWNERS REPRESENTATIVES DISCRETION.

WARRANTY: THE CONTRACTOR SHALL WARRANTY ALL WORKMANSHIP FOR THE PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE FROM THE OWNER OR OWNERS REPRESENTATIVE. ANY DEAD, UNHEALTHY, NON-CONFORMING PLANT MATERIAL SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE WITHIN 7 DAYS OF NOTICE FROM THE OWNER OR OWNERS REPRESENTATIVE. THE CONTRACTOR SHALL NOT BE LIABLE FOR 'ACTS OF GOD' AND VANDALISM, NEGLIGENCE AND THEFT BY OTHERS.

QUALITY ASSURANCE: THE CONTRACTOR SHALL PROVIDE SUBSTANTIAL PROOF TO OWNER OR OWNERS REPRESENTATIVE, THAT HE / SHE HAS A MINIMUM OF 5 YEARS EXPERIENCE IN THE FIELD OF LANDSCAPE CONTRACTING WITH PROJECTS OF SIMILAR SCOPE. THE CONTRACTOR MUST SUPPLY AT ALL TIMES ON SITE WHEN WORK IS BEING PERFORMED A QUALIFIED SUPERVISOR WITH A MINIMUM OF 18 MONTHS FIELD EXPERIENCE. ALCA LANDSCAPE CERTIFICATIONS CAN SUBSTITUTE IN LIEU OF THE EXPERIENCE REQUIREMENT AT OWNER OR OWNERS REPRESENTATIVES DISCRETION.

PRUNE TREES IN ACCORDANCE WITH NATIONAL ARBORIST ASSOCIATION STANDARDS TO ACHIEVE PROPER HEALTH AND A UNIFORM MASS.

REMOVE TOP 1/3 OF DEGRADABLE BURLAP AND TUCK BELOW SOIL TO AVOID WICKING. DO NOT DISTURB BURLAP AROUND THE FIBROUS ROOTS. REMOVE ALL NON-BIODEGRADABLE MATERIALS FROM PLANT AND PIT. SCORE ROOTS ON CONTAINER STOCK TO INSURE PROPER DEVELOPMENT.

2" MULCH DEPTH, 24" RADIUS AWAY FROM TRUNK

FINISHED GRADE

LANDSCAPE CONSTRUCTION NOTES:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES AND SERVICES BOTH UNDERGROUND AND OVERHEAD PRIOR TO THE COMMENCEMENT OF WORK. PROTECTION OF ALL UTILITIES AND SERVICES THROUGHOUT THE COURSE OF WORK IS EXPECTED.
- ALL LANDSCAPE AREAS (EXCEPT FOR PLANTING BEDS) SHALL BE SODDED UNLESS OTHERWISE INDICATED ON THE DRAWINGS. CONTRACTOR SHALL GET APPROVAL OF FINE GRADING FROM OWNER OR OWNERS REPRESENTATIVE PRIOR TO THE INSTALLATION OF TURF. GRADING FOR LANDSCAPE BERMING SHOWN ON PLANS AND DETAILS IS APPROXIMATE ONLY. CONTRACTOR SHALL CONFER WITH OWNER OR OWNERS REPRESENTATIVE PRIOR TO COMMENCING THIS WORK TO CONFIRM ACTUAL SHAPES AND ELEVATIONS OF THE LANDSCAPE BERMING. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FINISH GRADE ALL LANDSCAPE AREAS ELIMINATING ALL BUMPS, DEPRESSIONS, ROCKS, STICK, OR OTHER DEBRIS PRIOR TO THE INSTALLATION OF PLANT MATERIAL. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR MAINTAINING POSITIVE SHEET FLOW DRAINAGE AWAY FROM ALL STRUCTURES AND TO ALL DRAINAGEWAYS SHOWN OR IMPLIED ON THE DRAWINGS.
- THE OWNER OR OWNERS REPRESENTATIVE RESERVES THE RIGHT TO RELOCATE/ REPOSITION ANY PLANTS AS SITE CONDITIONS MAY DICTATE DURING CONSTRUCTION.
- THE CONTRACTOR SHALL COORDINATE ALL WORK WITH ALL TRADES SO AS TO AVOID ANY CONFLICT WITH THE EXECUTION OF WORK BY OTHERS. OWNER SHALL NOT BE RESPONSIBLE FOR THE DAMAGE TO PLANT MATERIALS CAUSED BY OTHER TRADES OR SUBCONTRACTORS. THE CONDITION OF REPAIRED OR REPLACED PLANT MATERIAL DUE TO DAMAGE SHALL BE APPROVED BY OWNER OR OWNERS REPRESENTATIVE PRIOR TO FINAL ACCEPTANCE.
- ALL LANDSCAPE AREAS SHALL BE PROTECTED FROM VEHICULAR ENCROACHMENT BY WHEELSTOPS AND/OR CURBING WHERE IMMEDIATELY ADJACENT TO PAVEMENT.
- THE CONTRACTOR SHALL VERIFY ALL QUANTITIES ON THE DRAWINGS PRIOR TO BIDDING. ALL QUANTITIES ON THE DRAWINGS ARE PROVIDED FOR CONVENIENCE ONLY.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL APPLICABLE PERMITS
- SEE ENGINEERING PLANS FOR ALL OTHER REQUIRED CALCULATIONS. THIS VEGETATION PLAN MEETS AND/OR EXCEEDS THE MINIMUM REQUIREMENTS OF THE VEGETATION SECTION OF THE LEE COUNTY LANDSCAPING CODE.
- ALL TREES INSTALLED IN RESPONSE TO THE REQUIRED INTERNAL LANDSCAPE AREAS, ALSO KNOWN AS INTERNAL CANOPY TREES SHALL BE LOCATED WHERE AND AS SHOWN ON THE DRAWINGS.
- PLANTINGS IN EASEMENTS: UTILITY, POWER, OR DRAINAGE EASEMENTS MAY OVERLAP REQUIRED BUFFERS; HOWEVER NO REQUIRED TREES OR SHRUBS MAY BE LOCATED IN ANY UTILITY, POWER, OR STREET EASEMENT OR RIGHT-OF-WAY.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN THROUGH FINAL ACCEPTANCE (CERTIFICATE OF COMPLETION) A TREE PROTECTION BARRIER FOR ALL INDIVIDUAL OR MASSES OF INDIGENOUS PLANT MATERIALS BEING CREDITED AND/OR PRESERVED.
- AN AUTOMATIC IRRIGATION SYSTEM COMBINING DRIP, SPRAY HEADS AND ROTORS AS APPROPRIATE WILL BE INSTALLED TO PROVIDE 100% COVERAGE TO ALL LANDSCAPED AREAS. A MOISTURE RAIN SENSOR WILL BE INCLUDED IN THE IRRIGATION SYSTEM AND LOCATED ON THE SITE SO THAT IT WILL RECEIVE DIRECT RAINFALL, NOT IMPEDED BY OTHER OBJECTS. THE IRRIGATION SYSTEM WILL BE DESIGNED TO ELIMINATE THE APPLICATION OF WATER TO IMPERVIOUS AREAS, INCLUDING ROADS, DRIVES, AND OTHER VEHICLE USE AREAS. THE IRRIGATION SYSTEM WILL BE DESIGNED TO AVOID IMPACTS ON EXISTING NATIVE VEGETATION THAT WILL BE RETAINED ON THE DEVELOPMENT. SITE AND NEW VERTICAL ARCHITECTURAL FEATURES.
- VEGETATION REMOVAL PERMIT MUST BE OBTAINED FROM LEE COUNTY ENVIRONMENTAL SCIENCES DIVISION PRIOR TO THE COMMENCEMENT OF SITE WORK.
- ALL HEALTHY SABAL PALMS WITH MINIMUM EIGHT-FOOT CLEAR TRUNK MUST BE SALVAGED AND REUSED ON SITE.

LANDSCAPE IRRIGATION NOTES :

- ANY AND ALL REQUIRED LANDSCAPING, CULTIVATED LANDSCAPE AREAS MUST BE PROVIDED WITH AN AUTOMATIC IRRIGATION SYSTEM WITH CONTROLLER SET TO CONSERVE WATER.
- SPECIFY THE TYPE OF AUTOMATIC IRRIGATION SYSTEM TO BE PROPOSED.
- ALL LANDSCAPE AREAS, INCLUDING PARKING LOT ISLANDS WILL BE ADEQUATELY SLEEVED FOR IRRIGATION. THIS REQUIREMENT MUST BE INCLUDED ON THE GRADING/PAVING PLAN SHEET.
- ALL REQUIRED IRRIGATION SYSTEMS MUST BE DESIGNED TO ELIMINATE THE APPLICATION OF WATER TO IMPERVIOUS AREAS, INCLUDING ROADS, DRIVES AND OTHER VEHICLE AREAS.
- REQUIRED IRRIGATION MUST ALSO BE DESIGNED TO AVOID IMPACTS ON EXISTING NATIVE VEGETATION.
- MOISTURE DETECTION DEVICES MUST BE INSTALLED IN ALL AUTOMATIC SPRINKLER SYSTEMS TO OVERIDE THE SPRINKLER ACTIVATION MECHANISM DURING PERIODS OF INCREASED RAINFALL.
- A MOISTURE (RAIN) SENSOR WILL BE INCLUDED IN THE IRRIGATION SYSTEM AND LOCATED ON THE SITE SO THAT IT WILL RECEIVE DIRECT RAINFALL, NOT IMPEDED BY OTHER OBJECTS.
- GROUP (WHEN PRACTICAL) AND LOCATE VALVES BOXES AND CONTROLLERS IN AN UNOBTUSIVE / ACCESSIBLE LOCATIONS APPROVED BY JOHNSON ENGINEERING, INC.
- GROUP PLANT MATERIALS ACCORDING TO SFVMD XERISCAPE PRINCIPLES WHEN PRACTICAL.
- TURFGRASS AREAS AND PLANTING BEDS SHALL HAVE SEPARATE ZONES AND RUN INDIVIDUALLY FROM ONE ANOTHER WHEN PRACTICAL.

NOTICE TO ALL CONTRACTORS

IT'S THE LAW IN FLORIDA 2 BUSINESS DAYS BEFORE YOU DIG CALL SUNSHINE 1-800-432-4770

STATE, COUNTIES & CITIES ARE "NOT" PART OF THE ONE CALL SYSTEM THEY MUST BE CALLED INDIVIDUALLY.



REVISIONS	DATE			
DESCRIPTION				
NO.				
DATE:	JUNE 2021			
PROJECT NO.	20192125-000			
FILE NO.	15-45-24			
SCALE:	As Shown			

CITED CODE REQUIREMENTS AND SPECIFICATIONS PER LEE COUNTY, L.D.C.

SEC. 10-415. OPEN SPACE.

- (a) OPEN SPACE CALCULATIONS. REFER TO OPEN SPACE REQUIREMENT TABLE AS OUTLINED FOR MINIMUM PERCENTAGES OF OPEN SPACE FOR ALL DEVELOPMENTS.
- (b) INDIGENOUS NATIVE VEGETATION AND TREES.

(1) PRESERVATION.

- a. LARGE DEVELOPMENTS, WITH EXISTING INDIGENOUS NATIVE VEGETATION COMMUNITIES MUST PROVIDE 50 PERCENT OF THEIR OPEN SPACE PERCENTAGE REQUIREMENT THROUGH THE ONSITE PRESERVATION OF EXISTING NATIVE VEGETATION COMMUNITIES. REFER TO SECTION 10-701.
- b. IF THE DEVELOPMENT AREA DOES NOT CONTAIN EXISTING INDIGENOUS NATIVE VEGETATION COMMUNITIES, BUT DOES CONTAIN EXISTING NATIVE TREES, THEN 50 PERCENT OF THEIR OPEN SPACE PERCENTAGE REQUIREMENT MUST BE MET THROUGH THE ONSITE PRESERVATION OF EXISTING NATIVE TREES CONSISTENT WITH SUBSECTION 1 THROUGH 4 BELOW. REFER TO APPENDIX E AND SECTION 34-373(6)(g).

1. PRESERVATION OF INDIGENOUS TREE CLUSTERS IS PREFERRED OVER INDIVIDUAL TREE PROTECTION. REASONABLE EFFORTS TO RETAIN INDIVIDUAL TREES MUST BE MADE. IT IS RECOGNIZED THAT SITE DESIGN REQUIREMENTS (E.G. FILL) MAY LIMIT THE ABILITY TO RETAIN SOME INDIVIDUAL TREES, AND IN THAT CASE THE COUNTY WILL ALLOW THE REMOVAL OF THOSE TREES.
2. SABAL PALMS MAY BE RELOCATED IN A HORTICULTURALLY CORRECT MANNER AND CLUSTERED WITHIN OPEN SPACE AREAS.
3. NATIVE TREES (FOUR TO 15-INCH CALIPER DBH) MAY BE RELOCATED TO OPEN SPACE AREAS WHEN PROPER HORTICULTURAL METHODS (E.G. ROOT PRUNING; USE OF ANTITRANSPIRANTS) ARE UTILIZED TO INSURE THE SURVIVABILITY OF THE TREES, AND A VEGETATION REMOVAL PERMIT IS OBTAINED.

4. DEVELOPMENTS GREATER THAN FIVE ACRES IN SIZE THAT ABUT AN ARTERIAL OR COLLECTOR ROAD AND HAVE EXISTING NATIVE TREES WITHIN 50-FEET OF THE RIGHT-OF-WAY MUST BE DESIGNED TO PROVIDE A 50-FOOT RIGHT-OF-WAY BUFFER FOR TREE PRESERVATION. DRAINAGE OR UTILITY EASEMENTS LOCATED WITHIN OR ADJACENT TO THE 50-FOOT RIGHT-OF-WAY BUFFER AREA MUST BE ESTABLISHED IN THE LOCATION WITH THE LEAST AMOUNT OF TREES AS DETERMINED BY ONSITE INSPECTION BY LEE COUNTY. THE PRESERVATION OF THE EXISTING TREES WILL NOT REQUIRE A DOUBLE HEDGE ROW TO BE INSTALLED AS PART OF THE RIGHT-OF-WAY BUFFER. THE PRESERVE AREA MAY NOT BE UTILIZED FOR DRAINAGE OR OTHER SIMILAR USES THAT MAY ADVERSELY AFFECT THE EXISTING NATIVE TREES. TO INCREASE LONG-TERM SURVIVAL OF THE EXISTING TREES TO BE RETAINED, APPROPRIATE ARBORICULTURAL TECHNIQUES TO REDUCE IMPACTS TO THE EXISTING TREES MUST BE USED. THOSE TECHNIQUES MUST INCLUDE WAYS TO REDUCE IMPACTS TO THE TREES' ROOT SYSTEMS AND CROWNS DURING CONSTRUCTION AND MUST BE CLEARLY PROVIDED ON THE LANDSCAPE PLANS OF THE DEVELOPMENT ORDER. THE NATIVE TREE PRESERVATION RIGHT-OF-WAY BUFFER MAY BE USED TOWARD MEETING THE INDIGENOUS PRESERVATION REQUIREMENT.

APPLICATIONS SUBMITTED PURSUANT TO THIS SECTION ENCOMPASSING DIFFICULT SITES, SUCH AS IRREGULARLY SHAPED PARCELS OR INDIGENOUS AREAS, MAY DEMONSTRATE THAT THE INTENT OF THIS SECTION CAN BE MORE EFFECTIVELY ACCOMPLISHED THROUGH AN ALTERNATIVE RIGHT-OF-WAY BUFFER DESIGN. APPROVAL OF AN ALTERNATIVE DESIGN IS AT THE DISCRETION OF THE DIRECTOR OR DESIGNER.

- c. A MINIMUM SETBACK OF 20 FEET FROM BUILDINGS IS REQUIRED. FOR INDIGENOUS PLANT COMMUNITIES SUBJECT TO FIRE, SUCH AS PINE FLATWOODS, PALMETO PRAIRIE AND XERIC SCRUB, A 30-FOOT SETBACK IS REQUIRED FOR FIRE PROTECTION.

- (2) SALVAGING EXISTING NATIVE PLANTS. SALVAGING EXISTING NATIVE PLANTS. OPEN SPACE AREAS MUST BE DESIGNED TO INCORPORATE AS MANY OF THE EXISTING LARGE NATIVE TREES AND SABAL PALMS AS POSSIBLE. SALVAGED NATIVE PLANTS RELOCATED TO AN INDIGENOUS PRESERVE MUST BE PROVIDED WITH A TEMPORARY ABOVE GROUND IRRIGATION SYSTEM OR OTHER MEANS OF IRRIGATION TO ENSURE SURVIVABILITY.

HEALTHY NATIVE TREES WITH A MINIMUM CALIPER OF FOUR INCHES AT FOUR AND ONE-HALF FEET ABOVE THE GROUND (DBH) MAY BE RELOCATED ONSITE FOR FIVE TREE CREDITS TOWARD GENERAL TREE REQUIREMENTS. THE TREES MUST BE PROPERLY PREPARED FOR RELOCATION THROUGH ROOT PRUNING OR OTHER HORTICULTURALLY CORRECT METHODS.

(3) CREDITS.

- a. FOR ALL DEVELOPMENTS WITH REQUIRED OPEN SPACE, EXCEPT SINGLE-FAMILY SUBDIVISIONS WITH INDIVIDUAL LOT AREA OF 6,500 SQUARE FEET OR GREATER AND A MAXIMUM LOT COVERAGE OF 45 PERCENT, AN INCENTIVE TO PRESERVE INDIGENOUS NATIVE UPLAND PLANT COMMUNITIES OR INDIGENOUS NATIVE TREES IN LARGE TRACTS, A SCALED OPEN SPACE CREDIT FOR SINGLE CONTIGUOUS PRESERVE AREAS WILL BE GRANTED AS FOLLOWS:

INDIGENOUS PLANT COMMUNITY & NATIVE TREE PRESERVATION AREA CREDITS		
CREDIT PROVIDED	MINIMUM SIZE	MINIMUM WIDTH
110%	1/2 ACRE	50 FEET
125%	1 ACRE	75 FEET
150%	3 ACRE	100 FEET

- b. AN ADDITIONAL, MAXIMUM TEN PERCENT CREDIT WILL BE GRANTED IF ANY OF THE FOLLOWING ARE INCLUDED:

1. RARE AND UNIQUE UPLANDS AS DEFINED BY THE LEE PLAN.
2. CONNECTION TO OFFSITE PUBLIC OR PRIVATE ENVIRONMENTAL CONSERVATION OR PRESERVE AREAS
3. UPLAND BUFFERS TO NATURAL WATERBODIES.
4. PRESERVATION ADJACENT TO A ROADWAY.
5. RESTORATION OF NATIVE SHRUBS, GRASSES, AND/OR GROUNDCOVER PLANTS WITH THE NATIVE TREE PRESERVATION AREA. A MINIMUM PLANTING SIZE OF ONE GALLON PLANT, INSTALLED ON THREE FOOT CENTERS (THREE-FOOT O.C.).
- (4) MAINTENANCE. A PLAN MUST BE SUBMITTED FOR THE LONG TERM MAINTENANCE OF VEGETATION IN INDIGENOUS OPEN SPACE AREAS. THIS INDIGENOUS VEGETATION MANAGEMENT PLAN MUST INCLUDE THE FOLLOWING CRITERIA:
- a. METHOD AND FREQUENCY OF PRUNING AND TRIMMING.
- b. METHODS TO REMOVE AND CONTROL ALL EXOTIC AND NUISANCE PLANTS IN PERPETUITY.
- c. DEBRIS REMOVAL.
- d. PROTECTED SPECIES MANAGEMENT PLAN CONDITIONS.
- e. DRAFTS OF EDUCATIONAL MATERIALS (SIGNAGE AND BROCHURES) TO BE PROVIDED TO THE RESIDENTS ABOUT THE PURPOSE AND FUNCTION OF THESE AREAS.
- f. MONITORING REPORTS, INCLUDING PHOTOS, THAT NARRATIVELY DOCUMENT PRESERVE AREA CONDITIONS MUST BE SUBMITTED TO OBTAIN DEVELOPMENT ORDER APPROVAL, AND, AGAIN AFTER PROJECT CONSTRUCTION IN ORDER TO OBTAIN A CERTIFICATE OF COMPLIANCE (CC). THE CC MONITORING REPORT MUST DESCRIBE AND DOCUMENT ECOLOGICAL RESTORATION ACTIVITY THAT HAS OCCURRED IN THE PRESERVE AREAS. IF REVIEW OF THE MONITORING REPORTS REVEALS DEATH OR SIGNIFICANT DECLINE TO PRESERVE VEGETATION, THEN REVISION OF THE MANAGEMENT PLAN AND RESTORATION IN ACCORD WITH SECTION 10-423 WILL BE REQUIRED.

- (5) ADMINISTRATIVE DEVIATION. CONSISTENT WITH THE PROVISIONS OF SECTION 10-104, THE DIRECTOR MAY PERMIT ADMINISTRATIVE DEVIATIONS TO REDUCE THE MINIMUM 50 PERCENT INDIGENOUS NATIVE VEGETATION REQUIREMENT WITHIN THIS SUBSECTION TO A LOWER PERCENTAGE. EXISTING, APPROVED INDIGENOUS PRESERVE AREAS WITHIN PLANNED DEVELOPMENTS ARE NOT ELIGIBLE FOR ADMINISTRATIVE DEVIATIONS, UNLESS THE PRESERVE AREAS ARE INTERIOR TO THE PROJECT (100 FEET OR MORE FROM THE PROPERTY LINE). THE ADMINISTRATIVE DEVIATION REQUEST MUST INCLUDE THE UNIQUE CONDITIONS OR CIRCUMSTANCES THAT MAKE THE PROPERTY UNUSABLE AND UNREASONABLY BURDENSOME, AND DEMONSTRATE WHY GRANTING THE DEVIATION IS IN THE PUBLIC INTEREST. THE APPLICANT MUST PROVIDE DETAILS OF OTHER ACTIONS THAT WILL BE TAKEN TO OFFSET THE REDUCTION (MITIGATION). MITIGATION THAT WILL BE CONSIDERED INCLUDES, BUT IS NOT LIMITED TO:

- a. ONSITE ECOLOGICAL CREATION/RESTORATION, WITH LONG-TERM MANAGEMENT, A MINIMUM TWO TO ONE RATIO OF CREATION/RESTORATION AREA TO INDIGENOUS AREA TO BE MITIGATED.
- b. OFFSITE LAND ACQUISITION WITH PERPETUAL CONSERVATION PROTECTION, A MINIMUM THREE TO ONE RATIO OF ACQUIRED LAND TO INDIGENOUS AREA TO BE MITIGATED.
- c. OFFSITE ECOLOGICAL RESTORATION ON PUBLIC LANDS OR PROTECTED PRIVATE LANDS. A MINIMUM THREE TO ONE RATIO OF ACQUIRED LAND TO INDIGENOUS AREA TO BE MITIGATED.
- d. PURCHASE OF APPROPRIATE CREDITS FROM A PERMITTED MITIGATION BANK.
- e. A MINIMUM THREE TO ONE RATIO OF ACQUIRED LAND TO INDIGENOUS AREA TO BE MITIGATED. INDIGENOUS PRESERVATION AREA CREDITS LISTED IN SECTION 10-415(b)(3)a. DO NOT APPLY TO ONSITE ECOLOGICAL CREATION/RESTORATION AREAS OR OFFSITE AREAS.

(c) MINIMUM DIMENSIONS.

- (1) THE MINIMUM AVERAGE WIDTH OF OPEN SPACE AREAS MUST BE TEN FEET.
- (2) THE MINIMUM AREA OF OPEN SPACE MUST BE 180 SQUARE FEET.
- (3) FOR PROJECTS UNDER TEN ACRES IN SIZE, INDIGENOUS OPEN SPACE AREAS MUST HAVE A MINIMUM AVERAGE WIDTH OF 20 FEET AND MINIMUM AREA OF 400 SQUARE FEET.
- FOR PROJECTS OVER TEN ACRES IN SIZE, INDIGENOUS OPEN SPACE AREAS MUST HAVE A MINIMUM AVERAGE WIDTH OF 40 FEET AND MINIMUM AREA OF 1,500 SQUARE FEET.
- (4) OPEN SPACE PRESERVATION AREAS MUST BE DESIGNED WITH ADEQUATE WIDTHS TO PRESERVE AND ALLOW THE CONTINUED GROWTH AND VIABILITY OF EXISTING NATIVE TREES.
- (5) NATIVE TREE PRESERVATION AREAS MUST EXTEND TO THE FULL DRIP LINE OF SLASH PINE, THREE QUARTER DRIP LINE FOR ALL CANOPY TYPE TREES, AND SIX FEET FROM THE TRUNK OF ANY NATIVE PALM, OR OTHER PROTECTIVE MEANS, SUCH AS RETAINING WALLS, MUST BE PROVIDED. EXCEPT FOR WORK RELATED TO APPROVED ECOLOGICAL RESTORATION ACTIVITIES, NO FILLING, GRADING OR EXCAVATING IS ALLOWED IN OPEN SPACE PRESERVATION AREAS.
- (6) SURFACE WATER MANAGEMENT SYSTEMS MAY OVERLAP WITH NATIVE TREE PRESERVATION AREAS ONLY WHERE IT CAN BE CLEARLY DEMONSTRATED THAT THE EFFECTS OF WATER MANAGEMENT SYSTEM CONSTRUCTION OR OPERATION WILL NOT CAUSE DEATH OR HARM TO THE PRESERVE TREE AND INDIGENOUS PLANT COMMUNITY OF PROTECTED SPECIES.

SEC. 10-415. CONTINUED

(d) USE OF OPEN SPACE.

- (1) OPEN SPACE AREAS MUST BE LANDSCAPED IN ACCORDANCE WITH THIS DIVISION.
- (2) THE FOLLOWING USES MAY CONTRIBUTE TO THE OPEN SPACE REQUIREMENTS PROVIDED THE MINIMUM DIMENSIONS ARE MET:
- a. BUFFERS AND LANDSCAPED AREAS IN OFF-STREET PARKING AREAS, EXCEPT FOR AREAS RESERVED FOR FUTURE PARKING SPACES PURSUANT TO SECTION 34-2017(D);
- b. DRY DETENTION AREAS.
- c. EXISTING OR PROPOSED BODIES OF WATER, INCLUDING STORMWATER MANAGEMENT AREAS AND AREAS SUBJECT TO SALTWATER INUNDATION, WHICH MAY BE USED TO OFFSET UP TO A MAXIMUM OF 25 PERCENT OF THE REQUIRED OPEN SPACE AREA.
- d. ACTIVE AND PASSIVE RECREATION AREAS SUCH AS PLAYGROUNDS, GOLF COURSES, BEACH FRONTAGE, NATURE TRAILS, BIKWAYS, PEDESTRIAN PATHS, TENNIS COURTS, SWIMMING POOLS AND OTHER SIMILAR OPEN SPACES, AS LONG AS NOT MORE THAN 20 PERCENT OF THE RECREATIONAL AREA CREDITED AS OPEN SPACE CONSISTS OF IMPERVIOUS SURFACE.
- e. OUTDOOR ACTIVE AND PASSIVE PUBLIC USE AREAS SUCH AS PLAZAS, ATRIUMS, COURTYARDS AND OTHER SIMILAR PUBLIC SPACES, WHICH MAY BE USED TO OFFSET UP TO A MAXIMUM OF 20 PERCENT OF THE REQUIRED OPEN SPACE.
- f. ARCHAEOLOGICAL SITES OR ZONES THAT ARE DESIGNATED AS SIGNIFICANT HISTORIC RESOURCES PURSUANT TO CHAPTER 22.
- g. REMOVAL OF NATIVE VEGETATION FROM INDIGENOUS OPEN SPACE AREAS BY MECHANICAL OR CHEMICAL MEANS IS PROHIBITED UNLESS SPECIFIED BY THE INDIGENOUS VEGETATION MANAGEMENT PLAN.

SEC. 10-416. LANDSCAPE STANDARDS.

- (a) GENERAL. LANDSCAPING FOR ALL NEW DEVELOPMENTS, EXCEPT COMMUNITY AND REGIONAL PARKS AS DEFINED IN SECTION 10-415(c), MUST INCLUDE AT THE TIME OF LAYOUT, THE FOLLOWING: (1) THE ADDITION TO THE LANDSCAPING REQUIRED FOR PARKING AND VEHICLE USE AREAS AND BUFFERS, GENERAL TREE REQUIREMENTS MAY BE REDUCED THROUGH THE UTILIZATION OF LARGER TREES AS SPECIFIED IN SECTION 10-420(C)(2) OR THROUGH USE OF PLANTED DETENTION AREAS AS SPECIFIED IN SECTION 10-416(A)(5). EXISTING WATER BODIES WITHIN THE DEVELOPMENT AREA WILL NOT BE INCLUDED IN THE CALCULATION FOR GENERAL TREE REQUIREMENTS.

- (1) RESIDENTIAL DEVELOPMENTS INCLUDING RECREATIONAL VEHICLE DEVELOPMENTS. ONE TREE MUST BE PROVIDED PER 3,000 SQUARE FEET OF DEVELOPMENT AREA. THE PREFERRED LOCATION TO INSTALL THESE TREES IS ON COMMON PROPERTY (CLUBHOUSE, LAKES, DRY DETENTION OR OTHER SIMILAR PROPERTY) PRIOR TO THE ACQUISITION OF A CERTIFICATE OF COMPLETION. TREE CREDITS SHOULD BE UTILIZED PER SECTION 10-420(i) FOR INDIGENOUS PRESERVES, WHERE APPLICABLE FOLLOWING THE GUIDELINES SET FORTH IN LDC SECTION 10-414(C).

- (2) SINGLE-FAMILY DEVELOPMENTS WITH A CONVENTIONAL ZONING DISTRICT LOT AND LOT COVERAGE WITH MINIMUM LOT SIZES OF 6,500 SQUARE FEET OR GREATER. SINGLE-FAMILY DEVELOPMENTS WITH A CONVENTIONAL ZONING DISTRICT LOT AND LOT COVERAGE WITH MINIMUM LOT SIZES OF 6,500 SQUARE FEET OR GREATER WILL BE REQUIRED TO PROVIDE A MINIMUM OF TWO TREES PER LOT.

- (3) ALL OTHER RESIDENTIAL DEVELOPMENTS. ALL OTHER RESIDENTIAL DEVELOPMENTS MUST PROVIDE ONE TREE PER 3,500 SQUARE FEET OF DEVELOPMENT AREA.

- (4) HERITAGE TREES. FOR LARGE DEVELOPMENTS, EFFORT MUST BE MADE TO PRESERVE NATIVE HERITAGE TREES WITH AT LEAST A 20-INCH CALIPER DBH. PRESERVED HERITAGE TREES MAY BE COUNTED AT A 5:1 CREDIT RATIO TOWARDS THE GENERAL TREE REQUIREMENT. IF A HERITAGE TREE MUST BE REMOVED FROM A SITE THEN A REPLACEMENT NATIVE CANOPY TREE WITH A MINIMUM 20-FOOT HEIGHT MUST BE PLANTED WITHIN THE REMOVED TREE'S PLANTING AREA. THE REPLACEMENT TREE CAN ONLY BE COUNTED AT A 1:1 RATIO TOWARDS MEETING THE GENERAL TREE REQUIREMENT.

- (5) FOR EACH 400 SQUARE FEET OF DRY DETENTION OR DRAINAGE AREA PLANTED WITH APPROPRIATE NATIVE HERBACEOUS VEGETATION (MINIMUM ONE-GALLON CONTAINER SIZE PLANTED THREE-FOOT ON CENTER) AND MULCHED WITH PINE STRAW, THE GENERAL TREE REQUIREMENT MAY BE REDUCED BY ONE TEN-FEET TREE.

- (b) BUILDING PERIMETER PLANTINGS. ALL NEW DEVELOPMENT IN COMMERCIAL ZONING DISTRICTS AND COMMERCIAL COMPONENTS OF PLANNED DEVELOPMENT DISTRICTS AND DRIS MUST PROVIDE BUILDING PERIMETER PLANTINGS EQUAL TO TEN PERCENT OF THE PROPOSED BUILDING GROSS GROUND LEVEL FLOOR AREA. THESE PLANTING AREAS MUST BE LOCATED ALONG THE THREE SIDES OF THE BUILDING WITH EMPHASIS ON THE SIDES MOST VISIBLE TO THE PUBLIC, NOT INCLUDING THE LOADING AREA. THE PERIMETER PLANTING AREAS MUST CONSIST OF LANDSCAPE AREAS, RAISED PLANTERS OR PLANTER BOXES THAT ARE A MINIMUM OF FIVE FEET WIDE. THESE LANDSCAPE AREAS MUST INCLUDE SHRUBS AND GROUND COVER PLANTS WITH A MINIMUM OF 80 PERCENT COVERAGE OF THE LANDSCAPE AREA AT THE TIME OF PLANTING. TREES AND SHRUBS MUST MEET THE MINIMUM SIZE REQUIREMENTS OF SECTION 10-420(D). GROUND COVER PLANTS MUST BE A MINIMUM ONE-GALLON CONTAINER SIZE. GENERAL TREES MAY BE PLANTED WITHIN THE BUILDING PERIMETER PLANTING AREAS, ESPECIALLY EFFECTIVE ARE CLUSTERS (THREE OR MORE) OF SABAL PALMS. TURFGRASS IS DISCOURAGED AND IS LIMITED TO TEN PERCENT OF THE LANDSCAPE AREA. WATER MANAGEMENT AREAS MAY NOT BE A PART OF THIS FIVE-FOOT PLANTING AREA. PEDESTRIAN ACCESS WAYS MAY CROSS AND LOADING AREAS MAY BE PLACED IN THE PERIMETER PLANTING AREA, BUT MAY NOT BE USED TO MEET MINIMUM PLANTING AREA OR OPEN SPACE REQUIREMENTS.

AN ENLARGED PERIMETER LANDSCAPE AREA IS REQUIRED IN THE FRONT OF SHOPPING CENTERS AND FREESTANDING RETAIL USES THAT CONSTITUTE A LARGE DEVELOPMENT, AN AREA THAT IS AT LEAST FIVE PERCENT OF THE SIZE OF THE VEHICULAR USE AREA MUST BE DEVELOPED AS GREEN SPACE WITHIN THE FRONT OF SHOPPING CENTERS AND RETAIL ESTABLISHMENTS AND BE AN ENLARGEMENT TO THE FRONT BUILDING PERIMETER PLANTING AREA. HOWEVER, IT IS NOT A REQUIREMENT THAT THIS AREA DIRECTLY ABUT THE FRONT OF THE BUILDING. THE ENLARGED PERIMETER PLANTING AREAS MUST CONSIST OF LANDSCAPE AREAS, RAISED PLANTERS OR PLANTER BOXES THAT ARE A MINIMUM OF FIVE FEET WIDE. THESE ENLARGED PERIMETER PLANTING AREAS MUST INCLUDE TREES, SHRUBS AND GROUND COVER PLANTS WITH A MINIMUM OF FOUR TREES PER 100 LINEAR FOOT OF BUILDING AND 50 PERCENT COVERAGE OF THE LANDSCAPE AREA AT THE TIME OF PLANTING. THE TREES PLACED AROUND THE BUILDING WILL BE APPLIED TO THE GENERAL TREE REQUIREMENT. TREES MAY BE INSTALLED IN CLUSTERS AND DO NOT NEED TO BE LOCATED WITHIN A 100 LINEAR FOOT SEGMENT. CLUSTERS OF TREES AT THE CORNERS OF BUILDING FRAMING ENTRANCES ARE ESPECIALLY EFFECTIVE. TREES AND SHRUBS MUST MEET THE SIZE REQUIREMENTS OF SECTION 10-420(D). GROUND COVER PLANTS MUST BE A MINIMUM 1-GALLON CONTAINER SIZE. TALLER PALMS (16- TO 20-FOOT CLEAR TRUNK) MUST BE USED WHEN BUILDING HEIGHT IS GREATER THAN 35 FEET. TURFGRASS IS DISCOURAGED AND IS LIMITED TO TEN PERCENT OF THE LANDSCAPE AREA. WATER MANAGEMENT AREAS MAY NOT BE A PART OF THIS ENLARGED PLANTING AREA.

THIS FIVE PERCENT GREEN SPACE AREA MAY BE USED TO MEET OPEN SPACE REQUIREMENTS IF THEY ARE IN COMPLYING WITH SECTION 10-415(c), BUT MAY NOT BE USED TO REDUCE THE PERIMETER PLANTING AREAS ON THE SIDES AND REAR OF THE BUILDING. THESE AREAS MUST BE DESIGNED FOR SCENIC, NONCOMMERCIAL RECREATION PURPOSES AND BE PEDESTRIAN-FRIENDLY AND AESTHETICALLY APPEALING. THEY MAY INCLUDE THE FOLLOWING: LIMITED TURFGRASS, MULCH, DECORATIVE PLANTINGS, LANDSCAPE, WALKWAYS WITHIN THE INTERIOR OF THE GREEN SPACE AREA NOT USED FOR SHOPPING, FOUNTAINS, MANMADE WATERCOURSES (BUT NOT FOR RETENTION AREAS), PARK BENCHES, SITE LIGHTING, SCULPTURES, GAZEBOES, AND ANY OTHER SIMILAR ITEMS.

BUILDING PERIMETER PLANTING STANDARDS ARE NOT APPLICABLE FOR BUILDINGS IN COMPACT COMMUNITIES THAT ARE CONSTRUCTED ON ANY LOT TYPES SHOWN IN CHAPTER 32, ARTICLE II.

- (c) LANDSCAPING OF PARKING AND VEHICLE USE AREAS. THE PROVISIONS OF THIS SECTION APPLY TO ALL NEW OFF-STREET PARKING OR OTHER VEHICULAR USE AREAS. EXISTING LANDSCAPING THAT DOES NOT COMPLY WITH THE PROVISIONS OF THIS CODE MUST BE BROUGHT INTO CONFORMITY, TO THE MAXIMUM EXTENT POSSIBLE, WHEN: THE VEHICULAR USE AREA IS ALTERED OR EXPANDED EXCEPT FOR RESTRIPPING OF LOTS/DRIVES, THE BUILDING SQUARE FOOTAGE IS CHANGED, OR THE STRUCTURE HAS BEEN VACANT FOR A PERIOD OF ONE YEAR OR MORE AND A REQUEST FOR AN OCCUPATIONAL LICENSE TO RESUME BUSINESS IS MADE. CONSISTENT WITH THE PROVISIONS OF SECTION 10-104, THE DIRECTOR MAY PERMIT ADMINISTRATIVE DEVIATIONS WHERE A CONFLICT EXISTS BETWEEN THE APPLICATION OF THIS DIVISION AND THE REQUIREMENTS FOR THE NUMBER OF OFF-STREET PARKING SPACES OR AREA OF OFF-STREET LOADING FACILITIES.

- (1) VEHICULAR OVERHANG OF LANDSCAPE AREAS. THE FRONT OF A VEHICLE MAY OVERHANG ANY LANDSCAPED AREA A MAXIMUM OF TWO FEET, PROVIDED THE LANDSCAPED AREA IS PROTECTED BY A MINIMUM OF TEN FEET WIDE STRIP OF GRASS, MULCH, OR OTHER COVER. SUCH STRIPS OR WALKWAY MAY BE PART OF THE REQUIRED DEPTH OF EACH ABUTTING PARKING SPACE. WALKWAYS MUST BE DESIGNED WITH A MINIMUM OF FIVE FEET WIDTH THAT IS CLEAR OF ANY VEHICLE OVERHANG.

- (2) INTERNAL LANDSCAPING. ALL PARKING AREAS MUST BE INTERNALLY LANDSCAPED TO PROVIDE VISUAL RELIEF AND COOLING EFFECTS AND TO CHANNELIZE AND DEFINE LOGICAL AREAS FOR PEDESTRIAN AND VEHICULAR CIRCULATION, AS FOLLOWS:

- a. TREES MUST BE PLANTED OR RETAINED IN LANDSCAPED AREAS IN PARKING AREAS, INCLUDING LANDSCAPED AREAS RESERVED FOR FUTURE PARKING SPACES, TO PROVIDE CANOPY COVERAGE WHEN THE TREES MATURE. AT LEAST ONE CANOPY TREE OR A CLUSTER OF THREE SABAL PALMS MUST BE PLANTED OR RETAINED FOR EVERY 250 SQUARE FEET OF REQUIRED INTERNAL PLANTING AREA, AND NO PARKING SPACE MAY BE MORE THAN 200 FEET FROM A TREE PLANTED IN A PERMEABLE ISLAND, PENINSULA OR MEDIAN OF 18-FOOT MINIMUM WIDTH. CANOPY REQUIREMENTS MUST BE MET WITH EXISTING INDIGENOUS NATIVE TREES WHENEVER SUCH TREES ARE LOCATED WITHIN THE PARKING AREA.
- b. LANDSCAPED AREAS ON THE PARKING AREA PERIMETER OR INTERNAL ISLANDS MUST EQUAL OR EXCEED A MINIMUM OF TEN PERCENT OF THE TOTAL PAVED SURFACE AREA. LANDSCAPED AREAS RESERVED FOR FUTURE PARKING SPACES PURSUANT TO SECTION 34-2017(D) MAY NOT BE INCLUDED IN THIS CALCULATION.
- c. THE MINIMUM DIMENSION OF ANY REQUIRED INTERNAL LANDSCAPED AREA MUST BE TEN FEET FOR PROJECTS LESS THAN TEN ACRES AND 18 FEET FOR PROJECTS TEN ACRES OR LARGER.
- d. NO MORE THAN AN AVERAGE OF TEN PARKING SPACES MUST OCCUR IN AN UNINTERRUPTED ROW WITH A MAXIMUM OF 13 PARKING SPACES BETWEEN LANDSCAPE AREAS WHEN TEN-FOOT WIDE LANDSCAPE ISLANDS ARE USED UNLESS OPTIONAL DIVIDER MEDIANS, AS SPECIFIED IN SECTION 10-418(C)(2)F., ARE USED.
- NO MORE THAN 20 PARKING SPACES MUST OCCUR IN AN UNINTERRUPTED ROW WHEN 18 FOOT WIDE LANDSCAPE ISLANDS ARE USED UNLESS OPTIONAL DIVIDER MEDIANS, AS SPECIFIED IN SUBSECTION (C)(2)F. OF THIS SECTION, ARE USED.

SEC. 10-416. CONTINUED

- e. FOR LARGE DEVELOPMENTS ONLY, EACH ROW OF PARKING SPACES MUST BE TERMINATED BY LANDSCAPED ISLANDS THAT MEASURE NOT LESS THAN FIVE FEET IN WIDTH AND NOT LESS THAN 18 FEET IN LENGTH. CURBING IS STRONGLY ENCOURAGED. IF TERMINAL ISLANDS ARE USED FOR REQUIRED CANOPY TREES, THEY MUST BE A MINIMUM OF TEN FEET IN WIDTH.

- f. OPTIONAL DIVIDER MEDIANS MAY BE USED TO MEET INTERIOR LANDSCAPE REQUIREMENTS. IF DIVIDER MEDIANS ARE USED, THEY MUST FORM A LANDSCAPED STRIP BETWEEN ABUTTING ROWS OF PARKING SPACES. THE MINIMUM WIDTH OF A DIVIDER MEDIAN MUST BE 18 FEET. ONE TREE MUST BE PLANTED FOR EACH 40 LINEAR FEET OF DIVIDER OR FRACTION THEREOF. TREES IN A DIVIDER MEDIAN MAY BE PLANTED SINGLY OR IN CLUSTERS. THE MAXIMUM SPACING OF TREES MUST BE 60 FEET.

- g. ALL INTERIOR LANDSCAPED AREAS NOT DEDICATED TO TREES OR TO PRESERVATION OF EXISTING VEGETATION MUST BE LANDSCAPED WITH GRASS, GROUND COVER, SHRUBS OR OTHER APPROVED LANDSCAPING MATERIALS, AND THIS MUST BE SO NOTED ON THE LANDSCAPE PLANS. SAND, GRAVEL, ROCK, SHELL OR PAVEMENT ARE NOT APPROPRIATE LANDSCAPE MATERIALS.

- (i) BUFFERING ADJACENT PROPERTY. BUFFERING AND SCREENING APPLIES TO ALL NEW DEVELOPMENT. EXISTING LANDSCAPES THAT DO NOT COMPLY WITH THE PROVISIONS OF THIS SECTION MUST BE BROUGHT INTO CONFORMITY TO THE MAXIMUM EXTENT POSSIBLE WHEN: THE VEHICULAR USE AREA IS ALTERED OR EXPANDED, EXCEPT FOR RESTRIPPING OF LOTS/DRIVES, THE BUILDING SQUARE FOOTAGE IS INCREASED, OR THERE HAS BEEN A DISCONTINUANCE OF USE FOR A PERIOD OF ONE YEAR OR MORE AND A REQUEST FOR AN OCCUPATIONAL LICENSE TO RESUME BUSINESS IS MADE.

- (1) GENERAL. A BUFFERING AREA IS REQUIRED ALONG THE ENTIRE PERIMETER OF THE PROPOSED DEVELOPMENT WHENEVER THE PROPOSED DEVELOPMENT ABUTS A DIFFERENT USE. THE EXISTING USE OR, WHERE VACANT, THE PERMITTED USE, OF THE ABUTTING PROPERTY WILL DETERMINE THE TYPE OF BUFFERING AREA REQUIRED FOR THE PROPOSED DEVELOPMENT. BUFFER AREAS MAY NOT BE LOCATED ON ANY PORTION OF AN EXISTING RIGHT-OF-WAY OR EASEMENT. BUFFER AREAS MUST BE CONSTRUCTED SO THAT BUFFERS MAY BE LOCATED WITHIN SLOPE EASEMENTS AS LONG AS APPROPRIATE PLANTING SOIL IS PROVIDED IN THE SLOPE.

- (2) USE CATEGORIES. REFER TO BUFFER TYPE USE REQUIREMENT TABLES IN INTERPRETING AND APPLYING THE PROVISIONS OF THIS SECTION.

- (3) BUFFER REQUIREMENTS. REFER TO NOTES FOR BUFFER REQUIREMENTS TABLE.

- (4) BUFFER TYPES. THE FOLLOWING TABLE PROVIDES SIX DIFFERENT BUFFER TYPES. EACH TYPE BUFFER, IDENTIFIED BY A LETTER, PROVIDES THE MINIMUM NUMBER OF TREES AND SHRUBS PER 100 LINEAR FOOT SEGMENT AND INDICATES WHETHER OR NOT A WALL OR HEDGE IS REQUIRED.

BUFFER TYPES (PER 100 LINEAL FEET)						
BUFFER TYPES	A	B	C	D(3)	E	F
MINIMUM WIDTH IN FEET	5	15	15	15	25	30
MINIMUM # OF TREES	4	5	5	5	5	10
MINIMUM # OF SHRUBS	-	HEDGE (2)	18 HEDGE (2)	30 HEDGE (2)	-	(2)
WALL REQUIRED (1)	NO	NO	YES	NO	YES	NO

NOTES FOR BUFFER TYPES TABLE:

1. A SOLID WALL, BERM OR WALL AND BERM COMBINATION, NOT LESS THAN EIGHT FEET IN HEIGHT AS MEASURED FROM THE FINISHED GRADE OF THE PROJECT SITE, ALL TREES AND SHRUBS REQUIRED IN THE BUFFER MUST BE PLACED WITHIN THE BUFFER. SIDE WIND WALLS MUST BE CONSTRUCTED TO ENSURE THAT HISTORIC FLOW PATTERNS ARE ACCOMMODATED AND ALL STORMWATER FROM THE SITE IS DIRECTED TO ON-SITE DETENTION/RETENTION AREAS IN ACCORDANCE WITH THE SFVMD REQUIREMENTS.
2. HEDGES MUST BE PLANTED IN DOUBLE STAGGERED ROWS AND BE MAINTAINED SO AS TO FORM A 36-INCH HIGH (F TYPE BUFFERS MUST BE 48 INCHES AT INSTALLATION AND BE MAINTAINED AT 60 INCHES HIGH) CONTINUOUS VISUAL SCREEN WITHIN ONE YEAR AFTER TIME OF PLANTING.

3. TREES WITHIN THE ROW BUFFER MUST BE APPROPRIATELY SIZED IN MATURE FORM SO THAT CONFLICTS WITH OVERHEAD UTILITIES, LIGHTING AND SIGNS ARE AVOIDED. PALMS ARE LIMITED TO A MAXIMUM OF 50 PERCENT OF THE ROW BUFFER REQUIREMENT. PALMS MUST BE PLANTED AND CANNOT BE PLANTED IN A "SOLDIERING" EFFECT, WHERE THEY ARE EQUAL DISTANCE AND IN A SINGLE ROW. SOUTH FLORIDA SLASH PINE (PINUS ELLIOTTII VAR. DENS) AND LONGLEAF PINE (PINUS PALUSTRIS) TREES ARE ENCOURAGED FOR USE IN THE ROW BUFFERS DUE TO THEIR HIGH CROWN, WHICH PROVIDES TREE CANOPY WHILE MAINTAINING GOOD VISIBILITY TO THE DEVELOPMENT SITE.

4. SHRUBS REQUIRED BY THIS SECTION ARE INTENDED TO PROVIDE VISUAL SCREENING AND MAY NOT BE PRUNED TO REDUCE PUBLIC ACCESS.

- (5) PUBLIC AND QUAS-PUBLIC FACILITIES, INCLUDING, BUT NOT LIMITED TO, PLACES OF WORSHIP, PARKS, UTILITY FACILITIES, GOVERNMENT OFFICES, NEIGHBORHOOD RECREATIONAL FACILITIES AND PRIVATE SCHOOLS MUST PROVIDE A TYPE C BUFFER IF, IN THE OPINION OF THE DIRECTOR, THE PROPOSED DEVELOPMENT WILL HAVE A SIGNIFICANTLY ADVERSE IMPACT ON ADJACENT EXISTING RESIDENTIAL USES.

- (6) IF ROADS, DRIVES, OR PARKING AREAS ARE LOCATED LESS THAN 125 FEET FROM AN EXISTING SINGLE-FAMILY RESIDENTIAL SUBDIVISION OR SINGLE-FAMILY RESIDENTIAL LOTS, A SOLID WALL OR COMBINATION BERM AND SOLID WALL NOT LESS THAN EIGHT FEET IN HEIGHT MUST BE CONSTRUCTED NOT LESS THAN 25 FEET FROM THE PROPERTY LINE AND ON THE EXTERIOR SIDE (BETWEEN THE WALL AND THE ABUTTING PROPERTY) WITH A MINIMUM OF FIVE TREES AND 18 SHRUBS PER 100 LINEAL FEET OR A 30-FOOT WIDE TYPE F BUFFER WITH THE HEDGE PLANTED A MINIMUM OF 20 FEET FROM THE ABUTTING PROPERTY. WHERE RESIDENCES WILL BE CONSTRUCTED BETWEEN THE ROAD, DRIVE OR PARKING AREA AND THE EXISTING RESIDENTIAL SUBDIVISION OR LOTS, THE WALL OR WALL AND BERM COMBINATION ARE NOT REQUIRED.

- (7) USES OR ACTIVITIES THAT GENERATE NOISE, DUST, ODOR, HEAT, GLARE OR OTHER SIMILAR IMPACTS, MUST PROVIDE A TYPE C OR F BUFFER IF, IN THE OPINION OF THE DIRECTOR, THE PROPOSED DEVELOPMENT WILL HAVE A SIGNIFICANTLY ADVERSE IMPACT ON ADJACENT PROPERTY.

- (8) WALLS, BERMS AND BUFFER PLANTINGS MUST NOT BE PLACED SO THEY VIOLATE THE VEHICLE VISIBILITY REQUIREMENTS OF SECTION 34-3131.

- (9) DEVELOPMENT ABUTTING NATURAL WATERWAY, EXCEPT WHERE CHAPTER 33 PROVIDES A STRICTER STANDARD FOR GREATER PINE ISLAND (AS DEFINED IN GOAL 14 OF THE LEE PLAN AND IN SECTION 33-1002), THERE MUST BE A 50-FOOT WIDE VEGETATIVE BUFFER LANDWARD OF NONSEA WALLED NATURAL WATERWAYS AS MEASURED FROM THE MEAN HIGH WATER LINE OR TOP OF BANK, WHICHEVER IS FURTHER LANDWARD.

- a. IN RESIDENTIAL SUBDIVISIONS, THE BUFFER MUST BE LOCATED WITHIN A COMMON AREA OR TRACT, AND OUTSIDE OF ALL PRIVATE PROPERTY BOUNDARIES. LOCATION OF THE BUFFERS IN ACCORD WITH THIS SECTION WILL NOT PREVENT THE ISSUANCE OF RESIDENTIAL DOCK PERMITS MEETING THE REQUIREMENTS OF SECTION 26-71(G) OR PROHIBIT USE OF THE BUFFER AREA FOR PASSIVE RECREATIONAL USES.

- b. EXISTING NATIVE VEGETATION WITHIN THE BUFFER AREA MUST BE RETAINED. THE NATURAL WATERWAY BUFFER MUST INCLUDE AT MINIMUM, SIX NATIVE CANOPY TREES AND 50 NATIVE SHRUBS PER 100 LINEAR FEET, WHICH MAY BE OFFSET THROUGH CREDITS FROM THE EXISTING NATIVE VEGETATION WITHIN THE WATERWAY BUFFER AREA AT A 1:1 CREDIT RATIO. IF EXISTING NATIVE VEGETATION IS NOT PRESENT TO MEET THE BUFFER VEGETATION STANDARDS, A PLANTING PLAN MUST BE SUBMITTED TO ENVIRONMENTAL SCIENCES FOR REVIEW PRIOR TO LOCAL DEVELOPMENT ORDER APPROVAL. ALL PROPOSED PLANTINGS WITHIN THE NATURAL WATERWAY BUFFER AREA MUST BE INSTALLED TO MIMIC A NATURAL SYSTEM, AND ALL PLANTINGS MUST COMPLY WITH THE PLANT STANDARDS SET FORTH IN SECTION 10-420. THE USE OF HEAVY MECHANICAL EQUIPMENT SUCH AS BULLDOZERS, FRONT END LOADERS, HYDRAULIC EXCAVATORS, OR SIMILAR EQUIPMENT IS PROHIBITED, UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM THE COUNTY.

- c. THE NATURAL WATERWAY BUFFER MUST BE DESIGNED TO INCORPORATE THE NATURAL RESOURCES MAINTENANCE EASEMENT REQUIRED UNDER SECTION 10-328(A). VEGETATION REMOVAL WITHIN THE BUFFER IS LIMITED TO:

1. ROUTINE REMOVAL OF EXOTICS AND DOWNED VEGETATIVE DEBRIS;
2. LIMITED REMOVAL TO ALLOW ACCESS OF VEHICLES FOR MAINTENANCE OF THE WATERWAY;
3. REMOVAL PERMITTED AS A CONDITION OF DOCK PERMIT APPROVAL; AND
4. PRIOR TO REMOVAL OF NATIVE VEGETATION, APPROVAL MUST BE OBTAINED FROM ES STAFF.

- (10) ALL FREESTANDING PARKING AREAS, WHETHER COMMERCIAL, PUBLIC OR PRIVATE, NOT ASSOCIATED WITH OTHER DEVELOPMENT MUST PROVIDE A D TYPE BUFFER FOR THE RIGHT-OF-WAY AND A C TYPE BUFFER IF THEY ABUT SINGLE-FAMILY RESIDENTIAL OR MULTIFAMILY RESIDENTIAL USES OR ZONING.

- (11) USE OF BUFFER AREAS. REQUIRED BUFFERS MAY BE USED FOR PASSIVE RECREATION SUCH AS PEDESTRIAN, BIKE, OR EQUESTRIAN TRAILS, PROVIDED THAT:

- a. NO REQUIRED TREES OR SHRUBS ARE ELIMINATED;
- b. NOT MORE THAN 20 PERCENT OF THE WIDTH OF THE BUFFER IS IMPERVIOUS SURFACE;
- c. THE TOTAL WIDTH OF THE BUFFER AREA IS MAINTAINED; AND
- d. ALL OTHER REQUIREMENTS OF THIS CHAPTER ARE MET.

SEC. 10-420. - PLANT MATERIAL STANDARDS.

- (a) QUALITY. PLANT MATERIALS USED TO MEET THE REQUIREMENTS OF THIS DIVISION MUST MEET THE STANDARDS FOR FLORIDA NO. 1 OR BETTER, AS SET OUT IN GRADES AND STANDARDS FOR NURSERY PLANTS, PARTS I AND II, DEPARTMENT OF AGRICULTURE, STATE OF FLORIDA (AS AMENDED), ROOT BALL SIZES ON ALL TRANSPLANTED PLANT MATERIALS MUST ALSO MEET STATE STANDARDS.
- (b) NATIVE VARIETIES. AT LEAST 75 PERCENT OF THE TREES AND 50 PERCENT OF THE SHRUBS USED TO FULFILL THESE REQUIREMENTS MUST BE NATIVE FLORIDA SPECIES.

SEC. 10-420. CONTINUED

(c) TREES AND PALMS.

- (1) CODE-REQUIRED TREES MUST BE A MINIMUM OF TEN FEET IN HEIGHT, HAVE A TWO-INCH CALIPER (AT SIX INCHES ABOVE THE GROUND) AND A FOUR-FOOT SPREAD AT THE TIME OF INSTALLATION. PALMS MUST HAVE A MINIMUM OF TEN FEET OF CLEAR TRUNK AT PLANTING. TREES HAVING AN AVERAGE MATURE SPREAD OR CROWN LESS THAN 20 FEET MAY BE SUBSTITUTED BY GROUPING THE SAME SO AS TO CREATE THE EQUIVALENT OF A 20-FOOT CROWN SPREAD. TREES ADJACENT TO WALKWAYS, BIKE PATHS AND RIGHTS-OF-WAY MUST BE MAINTAINED WITH EIGHT FEET OF CLEAR TRUNK.

- (2) LARGER TREES SUBSTITUTED TO REDUCE THE MINIMUM NUMBER OF GENERAL TREES MUST BE NO LESS THAN FOUR INCHES IN DIAMETER AT 12 INCHES ABOVE THE GROUND AND NO LESS THAN 16 FEET IN HEIGHT AT THE TIME OF PLANTING. THE GENERAL TREE REQUIREMENT CANNOT BE REDUCED IN NUMBER BY MORE THAN 50 PERCENT.

- (d) SHRUBS AND HEDGES. SHRUBS MUST BE A MINIMUM OF 24 INCHES (48 INCHES FOR TYPE F BUFFERS) IN HEIGHT AT TIME OF PLANTING. SAW PALM METOPSES (SERENGA REBENS) AND COONUTS (ZAMIA FLORIDIANA) MAY BE USED AS SHRUBS, PROVIDED THEY ARE 12 INCHES IN HEIGHT AT TIME OF PLANTING. ALL SHRUBS MUST BE A MINIMUM THREE-GALLON CONTAINER SIZE AND BE SPACED 18 TO 36 INCHES ON CENTER. THEY MUST BE AT LEAST 36 INCHES (60 INCHES FOR TYPE F BUFFERS) IN HEIGHT WITHIN 12 MONTHS OF TIME OF PLANTING AND MAINTAINED IN PERPETUITY AT A HEIGHT OF NO LESS THAN 36 INCHES (60 INCHES FOR TYPE F BUFFERS).

- (e) REQUIRED HEDGES MUST BE PLANTED IN DOUBLE STAGGERED ROWS AND MAINTAINED SO AS TO FORM A CONTINUOUS, UNBROKEN, SOLID VISUAL SCREEN WITHIN A MINIMUM OF ONE YEAR AFTER TIME OF PLANTING.

- (f) THE HEIGHT OF ALL TREES AND SHRUBS MUST BE MEASURED FROM THE FINAL GRADE OF THE PROJECT SITE.

- (g) MULCH REQUIREMENTS. A TWO-INCH MINIMUM LAYER, AFTER WATERING-IN, OF MULCH OR OTHER RECYCLED MATERIAL MUST BE APPLIED AND MAINTAINED AROUND ALL NEWLY INSTALLED TREES, SHRUBS, AND GROUND COVER PLANTINGS. EACH TREE MUST HAVE A RING OF MULCH NO LESS THAN 24 INCHES BEYOND ITS TRUNK IN ALL DIRECTIONS. THE USE OF CYPRESS MULCH IS STRONGLY DISCOURAGED. SAND, GRAVEL, ROCK, OR SHELL ARE NOT APPROPRIATE MULCH MATERIALS.

- (h) INVASIVE EXOTICS. THE FOLLOWING HIGHLY INVASIVE EXOTIC PLANTS MAY NOT BE PLANTED, (IE. ARE PROHIBITED) AND MUST BE REMOVED FROM THE DEVELOPMENT AREA. METHODS TO REMOVE AND CONTROL INVASIVE EXOTIC PLANTS MUST BE INCLUDED ON THE DEVELOPMENT ORDER PLANS. A STATEMENT MUST ALSO BE INCLUDED ON THE DEVELOPMENT ORDER THAT THE DEVELOPMENT AREA WILL BE MAINTAINED FREE FROM INVASIVE EXOTIC PLANTS IN PERPETUITY. FOR PURPOSES OF THIS SUBSECTION, INVASIVE EXOTIC PLANTS INCLUDE:

(ACACIA AURICULIFORMIS) EARLEAF ACACIA, (ALBIZIA LEBBECK) WOMENS TONGUE, (BISCHOFIA JAVANICA) BISHOPWOOD, (ALL CASUARINA SPP.) AUSTRALIAN PINES, (CUPANIOPSIS ANACARDIODES) CARROTWOOD, (DALBERGIA SISSOO) ROSEWOOD, (DIOSCOREA ALATA) AIR POTATO, (EUCALYPTUS CAMELODULENSIS) MURRAY RED GUM, (FICUS BENJAMINA) WEEPING FIG, (FICUS MICROCARPA) CUBAN LAUREL FIG, (LYCODYM JAPON