

The Village of Wellington Town Center Phase 2 Landscape Plan

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LANDSCAPE NOTES

- BASE INFORMATION OBTAINED FROM A SURVEY BY ENGENUITY AND DATED 08/24/2021.
- ALL LANDSCAPE MATERIAL SHALL CONFORM TO THE MOST RECENT STANDARDS AS OUTLINED BY THE "GRADES AND STANDARDS FOR NURSERY PLANTS" PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.
- SIGHT TRIANGLES SHALL BE PROVIDED AND MAINTAINED BY OWNER CLEAR OF VEGETATION TO PROVIDE UNOBSTRUCTED VISIBILITY BETWEEN 30 INCHES AND 8 FEET ABOVE GRADE.
- ALL INSTALLATION WORK SHALL BE CARRIED OUT IN A PROFESSIONAL MANNER IN ACCORDANCE WITH STANDARD NURSERY AND INSTALLATION PRACTICES.
- QUANTITIES ON PLANT LIST ARE FOR CONVENIENCE ONLY. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ALL PLANTS SHOWN ON LANDSCAPE PLANS.
- ALL LANDSCAPE AREAS SHALL BE SODDED, MULCHED OR OTHERWISE COVERED WITH GROUND COVER PER THESE PLANS AS LABELED.
- TREES SHOWN ON THIS PLAN ARE GRAPHIC REPRESENTATION ONLY. TREE SPACING IS BASED ON DESIGN REQUIREMENTS AND THE TREES SHOWN ON THESE PLANS ATTEMPT TO ACCOMPLISH THAT SPACING WHILE MAINTAINING THE REQUIRED SETBACKS FROM UTILITIES. TREES MAY BE FIELD ADJUSTED TO AVOID CONFLICTS WITH DRIVEWAYS AND UNDERGROUND UTILITIES.

LANDSCAPE EXCAVATION AND BACKFILL NOTES

- TREE AND SHRUB PLANTING BEDS WHICH FALL WITHIN OR NEAR ROADWAY AREAS SHALL BE COMPLETELY EXCAVATED AND BACK-FILLED WITH TOPSOIL. ALL SHELL-ROCK OR OTHER BASE MATERIALS, AND ALL SUBSOIL AND DEBRIS, SHALL BE COMPLETELY REMOVED FROM BENEATH SUCH PLANTING AREAS, TO A MINIMUM DEPTH OF 36". UPON COMPLETION OF EXCAVATION, LANDSCAPE ARCHITECT OR OWNER SHALL INSPECT THE EXCAVATED AREA PRIOR TO BACKFILLING WITH TOPSOIL.
- ALL TREE AND/OR SHRUB PLANTING AREAS WITHIN 8' OF BUILDING FOUNDATIONS, AND ANY OTHER PLANTING AREAS WHERE SIGNIFICANT BURIED CONSTRUCTION DEBRIS IS ENCOUNTERED, SHALL BE COMPLETELY EXCAVATED TO A MINIMUM DEPTH OF 36". UPON COMPLETION OF EXCAVATION, LANDSCAPE ARCHITECT OR OWNER SHALL INSPECT THE EXCAVATED AREA PRIOR TO BACKFILLING WITH TOPSOIL.
- ALL SHELLROCK OR LIMEROCK PAVING BASE EXISTING WITHIN PROPOSED PLANTING AND SOD AREAS SHALL BE REMOVED IN ITS ENTIRETY PRIOR TO PLACING PLANTER AREA TOPSOIL.

UTILITY SETBACK NOTES

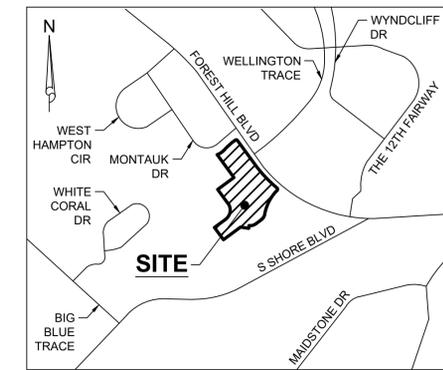
- ALL SETBACK DIMENSIONS SHOWN ON THE PLANS ARE TO BE MET AT THE TIME OF INSTALLATION.
- TREES ARE TO BE INSTALLED WITH A TEN FOOT (10') SEPARATION FROM ANY WATER OR SEWER MAIN AND/OR SERVICE, HYDRANTS, AND LIFT STATIONS, OR WITH A MINIMUM SEVEN FOOT (7') SETBACK IF INSTALLED WITH A ROOT BARRIER SYSTEM. REFER TO THE "ROOT BARRIER" DETAIL ON SHEET LP-7 FOR INSTALLATION REQUIREMENTS. HOWEVER IN NO CASE SHALL A TREE ENCR OACH INTO A PBCUE WITHOUT PRIOR PBCWUD APPROVAL AND ONLY SOD CAN BE INSTALLED WITHIN 5' OF A FIRE HYDRANT UNLESS OTHERWISE APPROVED BY THE FIRE MARSHAL AND PBCWUD.
- TREES ARE TO BE INSTALLED WITH A TEN FOOT (10') SEPARATION FROM ANY DRAINAGE OR STORM SEWER INFRASTRUCTURE, OR WITH A MINIMUM SEVEN FOOT (7') SETBACK IF INSTALLED WITH A ROOT BARRIER SYSTEM. REFER TO THE "ROOT BARRIER" DETAIL ON SHEET LP-7 FOR INSTALLATION REQUIREMENTS.
- WHERE REQUIRED, ROOT BARRIER TO BE INSTALLED WITH A MINIMUM 5' SEPARATION TO THE EDGE OF ALL UNDERGROUND UTILITIES AND INFRASTRUCTURE.
- TREES SHALL BE PLANTED WITH A MIN. 2' SEPARATION BETWEEN ANY ROOT BARRIER (MEASURED FROM THE CENTER OF THE TREE).

PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL / COMMON NAME
	CB	19	Calophyllum brasiliense / Brazilian Beautyleaf 16' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	CF	3	Cassia fistula / Golden Shower 16' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	CE	69	Conocarpus erectus / Green Buttonwood 16' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	CE2	3	Conocarpus erectus / Green Buttonwood 18' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	DR	3	Delonix regia / Royal Poinciana 16' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	IE	21	Ilex x attenuata 'Eagleston' / Eagleston Holly 16' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	QV	20	Quercus virginiana / Live Oak 16' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	TH	13	Tabebuia heterophylla / Pink Tabebuia 16' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
PALM TREES	CODE	QTY	BOTANICAL / COMMON NAME
	AA	24	Archontophoenix alexandrae / Alexandra Palm Min. 10' Ct. 14'-18' O.A. Ht. Single Trunk, Full Head, No Scarred Trunk, Height noted on Plan
	PD	1	Phoenix dactylifera 'Medjool' / Date Palm 8' Ct. 18' O.A. Ht. Single Trunk, Full Head, No Scarred Trunk
RELOCATED PALMS	CODE	QTY	BOTANICAL / COMMON NAME
	VM-R4	9	Relocated Montgomery Palm Existing Palm in Area 4 To Be Relocated
	VM-R5	6	Relocated Montgomery Palm Existing Palm in Area 5 To Be Relocated
	SP-R1	1	Relocated Sabal Palm Existing Palm in Area 1 To Be Relocated
	SP-R2	1	Relocated Sabal Palm Existing Palm in Area 2 To Be Relocated
	SP-R6	5	Relocated Sabal Palm Existing Palm in Area 6 To Be Relocated
	RE-R1	17	Royal Palm Existing Palm in Area 1 To Be Relocated
	RE-R6	5	Royal Palm Existing Palm in Area 6 To Be Relocated
	RE-R2	3	Royal Palm Existing Palm in Area 2 To Be Relocated
RELOCATED TREES	CODE	QTY	BOTANICAL / COMMON NAME
	FD-R4	3	Japanese Fern Tree Existing Tree in Area 4 To Be Relocated
	QV-R1	20	Live Oak Existing Tree in Area 1 To Be Relocated
	QV-R2	3	Live Oak Existing Tree in Area 2 To Be Relocated
	QV-R3	9	Live Oak Existing Tree in Area 3 To Be Relocated
ACCENT SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME
	COR	24	Cordyline fruticosa 'Hawaiian' / Hawaiian Ti Plant Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	CRI	1	Crinum augustum / Crinum Lily Min. 7 Gal. 30" Ht. x 30" Spr. 36" O.C. Full and Dense Shrub, Full to Base

LARGE SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME
	CHR	226	Chrysobalanus icaco 'Red Tip' / Red Tip Cocoplum Min. 7 Gal. 36" Ht. x 36" Spr. 36" O.C. Full and Dense Shrub, Full to Base
	CLU	133	Clusia guttifera / Small Leaf Clusia Min. 7 Gal. 36" Ht. x 36" Spr. 36" O.C. Full and Dense Shrub, Full to Base
	POD	33	Podocarpus macrophyllus / Podocarpus Min. 7 Gal. 36" Ht. x 30" Spr. 30" O.C. Full and Dense Shrub, Full to Base
MEDIUM SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME
	CHR2	506	Chrysobalanus icaco 'Red Tip' / Red Tip Cocoplum Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	FIC	1,536	Ficus microcarpa 'Green Island' / Green Island Ficus Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	IXO	247	Ixora 'Nora Grant' / Ixora Nora Grant Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	MUH	439	Muhlenbergia capillaris / Pink Muhly Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	SCH	29	Schefflera arboricola 'Variegata' / Variegated Schefflera Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
SMALL SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME
	ANN	62	Annuals / Seasonal Annuals Min. 4" Pots, Full Flowering when Installed, 12" O.C.
	DUR	38	Duranta erecta / Golden Dewdrops Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	EQU	171	Equisetum hyemale / Horsetail Min. 1 Gal. 12" Ht. x 12" Spr. 12" O.C. Full and Dense Shrub, Full to Base
	JAS	304	Jasminum volubile / Wax Jasmine Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	PEN	134	Pentas lanceolata / Red Penta Min. 3 Gal. 18" Ht. x 18" Spr. 18" O.C. Full and Dense Shrub, Full to Base
GROUND COVERS	CODE	QTY	BOTANICAL / COMMON NAME
	NO SYMBOL	SOD2	21,639 sf Cynodon dactylon / Celebration Bermuda Grass Rolled sod only. Machine cut at a uniform soil thickness of 0.75 inch, plus or minus 0.25 inch, at time of cutting, unless otherwise agreed upon. Measurement for thickness shall exclude top growth and thatch. Staggered panels laid tight, backfill & roll.
	NO SYMBOL	MULCH	23,601 sf Mulch / Shredded Maleuca Mulch
	NO SYMBOL	SOD	109,197 sf Stenotaphrum secundatum CitraBlue™ / CitraBlue™ Sl. Augustine Grass Rolled sod only. Machine cut at a uniform soil thickness of 0.75 inch, plus or minus 0.25 inch, at time of cutting, unless otherwise agreed upon. Measurement for thickness shall exclude top growth and thatch. Staggered panels laid tight, backfill & roll.
	NO SYMBOL	TURF	19,171 sf Synthetic Turf
	ROOT BARRIER	XXX LF	48" Depth Min., Install Per Manufacturer's Specifications; Refer to Landscape Details for More Information

PROJECT LOCATION MAP

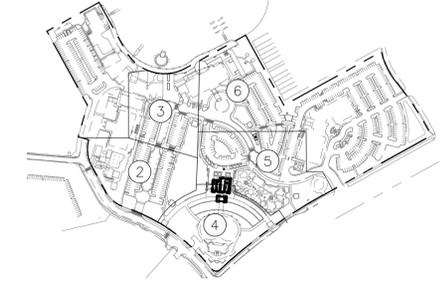


SECTION 10, TOWNSHIP 44S., RANGE 41E.

PROJECT ADDRESSES:

- 12190 FOREST HILL BOULEVARD (SCOTT'S PLACE)
- 12100 FOREST HILL BOULEVARD (AMPHITHEATER)
- WELLINGTON, FLORIDA 33414

SHEET KEY



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The Village of Wellington Town Center Phase 2

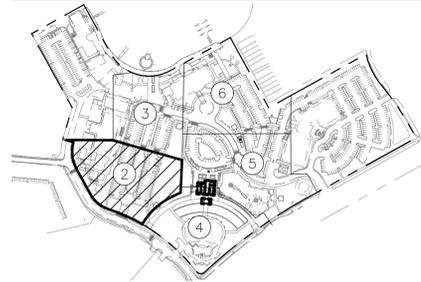
Landscape Plan - Cover Sheet

100% DESIGN DEVELOPMENT

Date: May 2021
Project No.: 18-043.002
Designed By: TSP / JEB
Drawn By: TSP / JEB
Checked By: CWW

Revision Dates:
50% DD SUBMITTAL: 5.28.21
100% DD SUBMITTAL: 6.25.21

LP-1
of 8



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PLANT LEGEND

	CB	Cotyledon brasiliensis / Brazillion Beardleaf 16' H. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	CF	Cassia fistula / Golden Shower 16' H. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	CE	Conocarpus erectus / Green Buttonwood 16' H. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	CE2	Conocarpus erectus / Green Buttonwood 16' H. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	DR	Delonix regia / Royal Poinciana 16' H. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	E	Ilex x attenuata 'Eagleston' / Eagleston Holly 16' H. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	QV	Quercus virginiana / Live Oak 16' H. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	TH	Tabebuia heterophylla / Pink Tabebuia 16' H. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	AA	Archontophoenix alexandriae / Alexandra Palm Min. 10' Cl. 14-18' O.A. Ht. Single Trunk, Full Head, No Scarred Trunk, Height noted on Plan
	PD	Phoenix decussifera 'Madjool' / Date Palm 8' Cl. 18' O.A. Ht. Single Trunk, Full Head, No Scarred Trunk
	RELOCATED PALMS	
	VM-R4	Relocated Montgomery Palm Existing Palm in Area 4 To Be Relocated
	VM-R5	Relocated Montgomery Palm Existing Palm in Area 5 To Be Relocated
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	RE-R6	Royal Palm Existing Palm in Area 6 To Be Relocated
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	QV-R1	Live Oak Existing Tree in Area 1 To Be Relocated
	QV-R2	Live Oak Existing Tree in Area 2 To Be Relocated
	QV-R3	Live Oak Existing Tree in Area 3 To Be Relocated
	ACCENT SHRUBS	
	COR	Cordyline fruticosa 'Hawaiian' / Hawaiian Ti Plant Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	CRI	Citrus aurantium / Citrus Lily 7 Gal. 30" Ht. x 30" Spr. 30" O.C. Full and Dense Shrub, Full to Base
	LARGE SHRUBS	
	CHR	Chrysobalanus icaco 'Red Tip' / Red Tip Coccoloba Min. 7 Gal. 36" Ht. x 36" Spr. 36" O.C. Full and Dense Shrub, Full to Base
	CLU	Citrus gulfensis / Small Leaf Citrus Min. 7 Gal. 36" Ht. x 36" Spr. 36" O.C. Full and Dense Shrub, Full to Base
	POD	Podocarpus macrophyllus / Podocarpus Min. 7 Gal. 36" Ht. x 30" Spr. 30" O.C. Full and Dense Shrub, Full to Base
	MEDIUM SHRUBS	
	CHR2	Chrysobalanus icaco 'Red Tip' / Red Tip Coccoloba Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	FC	Ficus microcarpa 'Green Island' / Green Island Ficus Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	IXO	Ixora 'Nora Grant' / Ixora Nora Grant Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	MUH	Muhlenbergia capillaris / Pink Muhly Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	SCH	Schefflera arboricola 'Variegata' / Variegated Schefflera Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	SMALL SHRUBS	
	ANN	Annuals / Seasonal Annuals Min. 4" Pots, Full Flowering when Installed, 12" O.C.
	DUR	Duranta erecta / Golden Dewdrops Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	EGU	Equisetum hyemale / Horsetail Min. 1 Gal. 12" Ht. x 12" Spr. 12" O.C. Full and Dense Shrub, Full to Base
	JAS	Jasminum volatile / Wax Jasmine Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	PEN	Pentas lanceolata / Red Pentas Min. 3 Gal. 18" Ht. x 18" Spr. 18" O.C. Full and Dense Shrub, Full to Base
	GROUND COVERS	
	SOD2	Cynodon dactylon / Celebration Bermuda Grass Rolled sod only. Machine cut at a uniform soil thickness of 0.75 inch, plus or minus 0.25 inch, at time of cutting, unless otherwise agreed upon. Measurement for thickness shall include top growth and thatch. Staggered panels laid tight, backfill & roll.
	MULCH	Mulch / Shredded Maleuca Mulch
	SOD	Sternotaphrum secundatum CitraBlue™ / CitraBlue™ St. Augustine Grass Rolled sod only. Machine cut at a uniform soil thickness of 0.75 inch, plus or minus 0.25 inch, at time of cutting, unless otherwise agreed upon. Measurement for thickness shall include top growth and thatch. Staggered panels laid tight, backfill & roll.
	TURF	Synthetic Turf
	ROOT BARRIER	48" Depth Min., Install Per Manufacturer's Specifications, Refer to Landscape Details for More Information.

**The Village of Wellington
Town Center Phase 2**

Landscape Plan



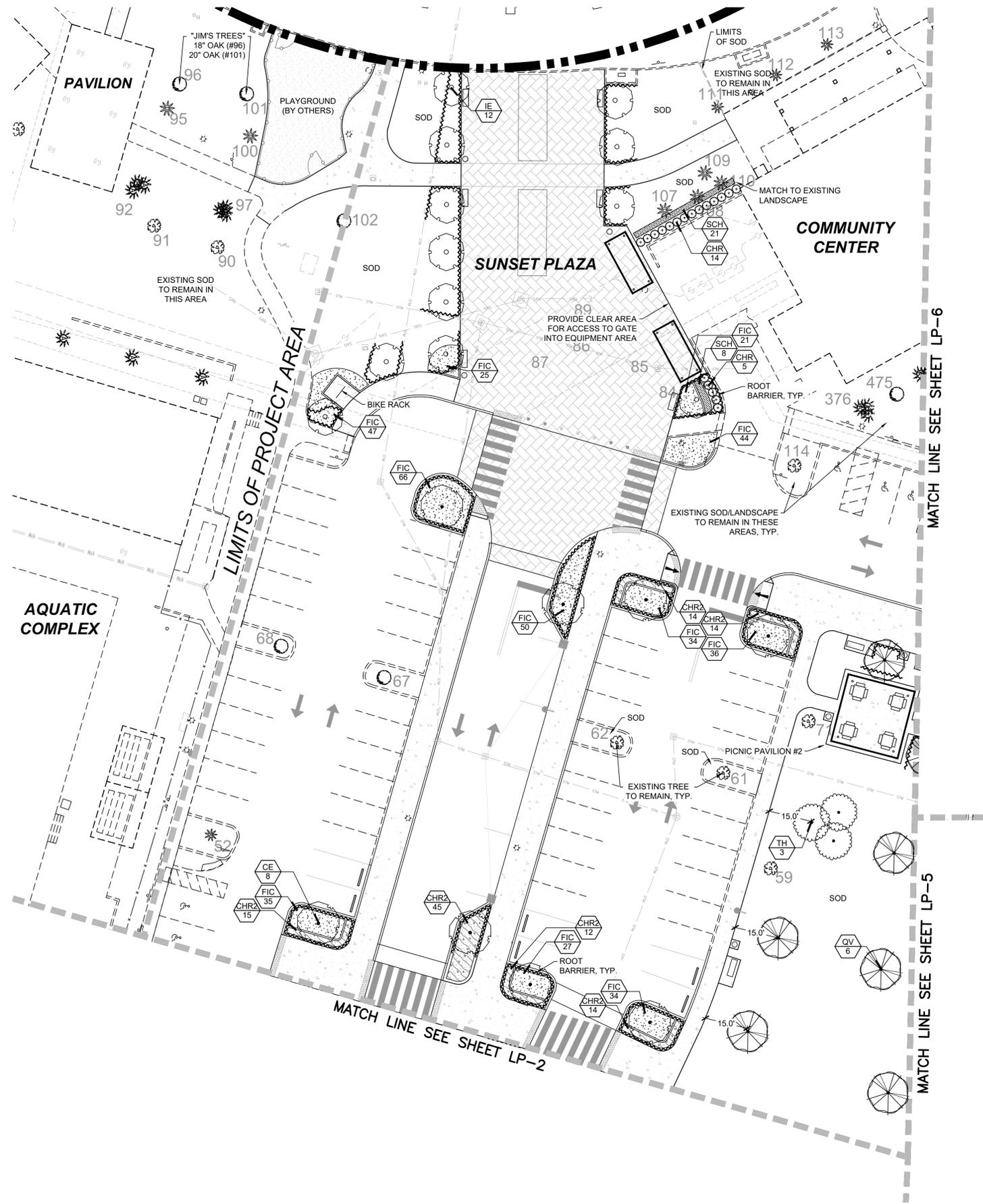
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Scale: 1" = 20'-0"

Date: May 2021
Project No.: 18-043.002
Designed By: TSP / JEB
Drawn By: TSP / JEB
Checked By: CWW

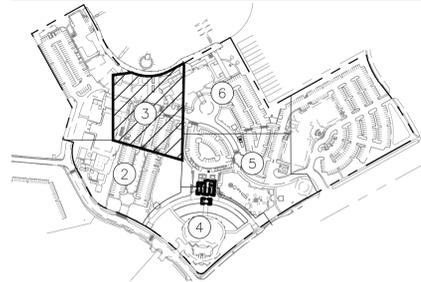
Revision Dates:
50% DD SUBMITTAL: 5.28.21
100% DD SUBMITTAL: 6.25.21



100% DESIGN DEVELOPMENT



SHEET KEY



PLANT LEGEND

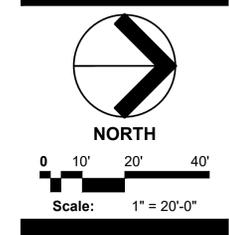
	CB	Calophyllum brasiliense / Brazilian Beautyleaf 16' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	CF	Cassia fastuosa / Golden Shower 16' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	CE	Conocarpus erectus / Green Buttonwood 16' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	CE2	Conocarpus erectus / Green Buttonwood 16' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	DR	Detonix regia / Royal Poinciana 16' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	E	Heliconia stricta / Eagleston / Eagleston Holly 16' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	QV	Quercus virginiana / Live Oak 16' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	TH	Tabebuia heterophylla / Pink Tabebuia 16' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
PALM TREES		
CODE BOTANICAL / COMMON NAME		
	AA	Archontophoenix alexandriae / Alexandra Palm Min. 10' Cl., 14"-18" O.A. Ht. Single Trunk, Full Head, No Scanned Trunk, Height noted on Plan
	PD	Phoenix dactylopera 'Medjool' / Date Palm 8' Cl. 18" O.A. Ht. Single Trunk, Full Head, No Scanned Trunk
RELOCATED PALMS		
CODE BOTANICAL / COMMON NAME		
	VM-R4	Relocated Montgomery Palm Existing Palm in Area 4 To Be Relocated
	VM-R5	Relocated Montgomery Palm Existing Palm in Area 5 To Be Relocated
	SP-R1	Relocated Sabal Palm Existing Palm in Area 1 To Be Relocated
	SP-R2	Relocated Sabal Palm Existing Palm in Area 2 To Be Relocated
	SP-R6	Relocated Sabal Palm Existing Palm in Area 6 To Be Relocated
	RE-R1	Royal Palm Existing Palm in Area 1 To Be Relocated
	RE-R6	Royal Palm Existing Palm in Area 6 To Be Relocated
	RE-R2	Royal Palm Existing Palm in Area 2 To Be Relocated
RELOCATED TREES		
CODE BOTANICAL / COMMON NAME		
	QV-R1	Live Oak Existing Tree in Area 1 To Be Relocated
	QV-R2	Live Oak Existing Tree in Area 2 To Be Relocated
	QV-R3	Live Oak Existing Tree in Area 3 To Be Relocated
ACCENT SHRUBS		
CODE BOTANICAL / COMMON NAME		
	CDR	Cordyline fruticosa 'Hawaiian' / Hawaiian Ti Plant Min. 3 Gal., 24" Ht. x 24" Spr., 24" O.C. Full and Dense Shrub, Full to Base
	CRI	Citrus aurantium / Citrus Lily Min. 7 Gal., 30" Ht. x 30" Spr., 30" O.C. Full and Dense Shrub, Full to Base
LARGE SHRUBS		
CODE BOTANICAL / COMMON NAME		
	CHR	Chrysobalanus icaco 'Red Tip' / Red Tip Coccoloba Min. 3 Gal., 36" Ht. x 36" Spr., 36" O.C. Full and Dense Shrub, Full to Base
	FIC	Ficus microcarpa 'Green Island' / Green Island Ficus Min. 3 Gal., 24" Ht. x 24" Spr., 24" O.C. Full and Dense Shrub, Full to Base
	IXO	Ixora nora 'Nora Grant' / Ixora Nora Grant Min. 3 Gal., 24" Ht. x 24" Spr., 24" O.C. Full and Dense Shrub, Full to Base
	MUH	Muhlenbergia capillaris / Pink Muhly Min. 3 Gal., 24" Ht. x 24" Spr., 24" O.C. Full and Dense Shrub, Full to Base
	SCH	Schefflera arborescens 'Variegata' / Variegated Schefflera Min. 3 Gal., 24" Ht. x 24" Spr., 24" O.C. Full and Dense Shrub, Full to Base
MEDIUM SHRUBS		
CODE BOTANICAL / COMMON NAME		
	CHR2	Chrysobalanus icaco 'Red Tip' / Red Tip Coccoloba Min. 3 Gal., 24" Ht. x 24" Spr., 24" O.C. Full and Dense Shrub, Full to Base
	FIC	Ficus microcarpa 'Green Island' / Green Island Ficus Min. 3 Gal., 24" Ht. x 24" Spr., 24" O.C. Full and Dense Shrub, Full to Base
	IXO	Ixora nora 'Nora Grant' / Ixora Nora Grant Min. 3 Gal., 24" Ht. x 24" Spr., 24" O.C. Full and Dense Shrub, Full to Base
	MUH	Muhlenbergia capillaris / Pink Muhly Min. 3 Gal., 24" Ht. x 24" Spr., 24" O.C. Full and Dense Shrub, Full to Base
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SMALL SHRUBS		
CODE BOTANICAL / COMMON NAME		
	ANN	Anemone / Seasonal Annuals Min. 4" Pots, Full Flowering when Installed, 12" O.C.
	DUR	Duranta erecta / Golden Dewdrops Min. 3 Gal., 24" Ht. x 24" Spr., 24" O.C. Full and Dense Shrub, Full to Base
	EQU	Equisetum hyemale / Horsetail Min. 1 Gal., 12" Ht. x 12" Spr., 12" O.C. Full and Dense Shrub, Full to Base
	JAS	Jasminum volubile / Wax Jasmine Min. 3 Gal., 24" Ht. x 24" Spr., 24" O.C. Full and Dense Shrub, Full to Base
	PEN	Pentas lanceolata / Red Pentas Min. 3 Gal., 18" Ht. x 18" Spr., 18" O.C. Full and Dense Shrub, Full to Base
GROUND COVERS		
CODE BOTANICAL / COMMON NAME		
NO SYMBOL	SOD2	Cynodon dactylon / Celebration Bermuda Grass Rolled sod only. Machine cut at a uniform soil thickness of 0.75 inch, plus or minus 0.25 inch, at time of cutting, unless otherwise agreed upon. Measurement for thickness shall include top growth and thatch. Staggered panels laid tight, backfill & roll.
NO SYMBOL	MULCH	Mulch / Shredded Maleuca Mulch
NO SYMBOL	SOD	Stenotaphrum secundatum CitraBlue™ / CitraBlue™ St. Augustine Grass Rolled sod only. Machine cut at a uniform soil thickness of 0.75 inch, plus or minus 0.25 inch, at time of cutting, unless otherwise agreed upon. Measurement for thickness shall include top growth and thatch. Staggered panels laid tight, backfill & roll.
NO SYMBOL	TURF	Synthetic Turf
	ROOT BARRIER	48" Depth Min., Install Per Manufacturer's Specifications. Refer to Landscape Details for More Information

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**The Village of Wellington
Town Center Phase 2
Landscape Plan**

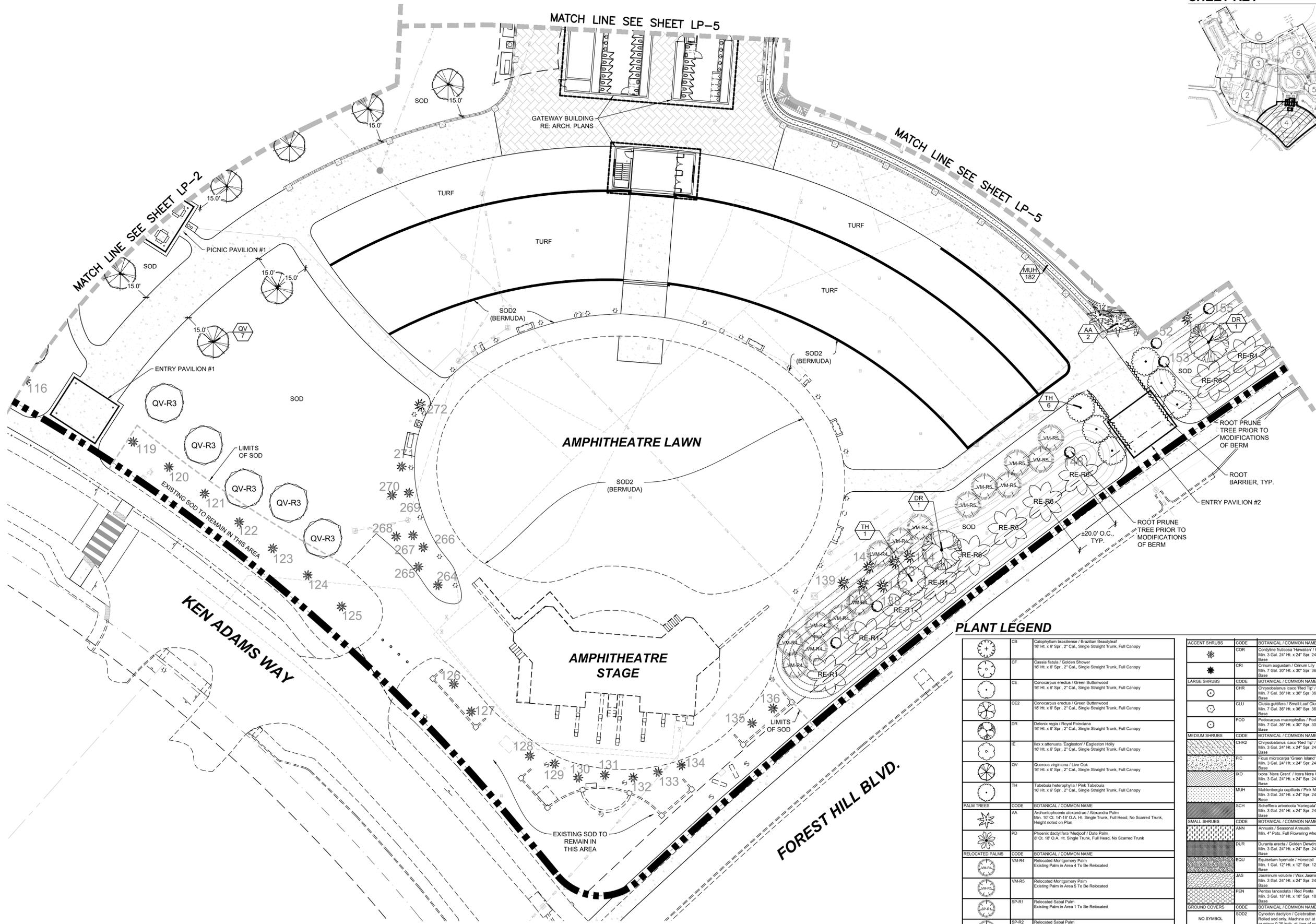
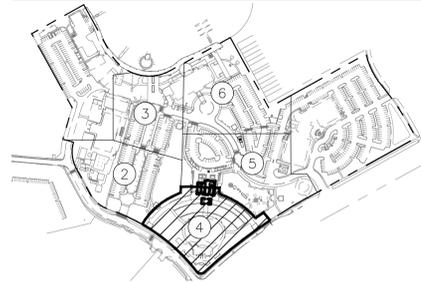


Date: May 2021
Project No.: 18-043.002
Designed By: TSP / JEB
Drawn By: TSP / JEB
Checked By: CWW

Revision Dates:
50% DD SUBMITTAL: 5.28.21
100% DD SUBMITTAL: 6.25.21

LP-3
of 8

100% DESIGN DEVELOPMENT



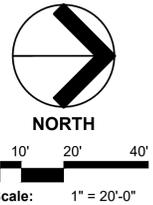
PLANT LEGEND

	CB	Calceolarym brasiliense / Brazilian Beautyleaf 16' Ht. x 6' Spr., 2' Cal., Single Straight Trunk, Full Canopy
	CF	Cassia fistula / Golden Shower 16' Ht. x 6' Spr., 2' Cal., Single Straight Trunk, Full Canopy
	CE	Conocarpus erectus / Green Buttonwood 16' Ht. x 6' Spr., 2' Cal., Single Straight Trunk, Full Canopy
	CE2	Conocarpus erectus / Green Buttonwood 16' Ht. x 6' Spr., 2' Cal., Single Straight Trunk, Full Canopy
	DR	Delonix regia / Royal Poinciana 16' Ht. x 6' Spr., 2' Cal., Single Straight Trunk, Full Canopy
	IE	Ilex x attenuata / Eagleston / Eagleston Holly 16' Ht. x 6' Spr., 2' Cal., Single Straight Trunk, Full Canopy
	QV	Quercus virginiana / Live Oak 16' Ht. x 6' Spr., 2' Cal., Single Straight Trunk, Full Canopy
	TH	Tabebuia heterophylla / Pink Tabebuia 16' Ht. x 6' Spr., 2' Cal., Single Straight Trunk, Full Canopy
	AA	Anchothophoenix alexandrinae / Alexandra Palm Min. 10' Cl. 14"-18" O.A. Ht. Single Trunk, Full Head, No Scared Trunk, Height noted on Plan
	PD	Phoenix dactylochea / Date Palm 6' Cl. 18" O.A. Ht. Single Trunk, Full Head, No Scared Trunk
	VM-R4	Relocated Montgomery Palm Existing Palm in Area 4 To Be Relocated
	VM-R5	Relocated Montgomery Palm Existing Palm in Area 5 To Be Relocated
	SP-R1	Relocated Sabal Palm Existing Palm in Area 1 To Be Relocated
	SP-R2	Relocated Sabal Palm Existing Palm in Area 2 To Be Relocated
	SP-R6	Relocated Sabal Palm Existing Palm in Area 6 To Be Relocated
	RE-R1	Royal Palm Existing Palm in Area 1 To Be Relocated
	RE-R6	Royal Palm Existing Palm in Area 6 To Be Relocated
	RE-R2	Royal Palm Existing Palm in Area 2 To Be Relocated

	ACCENT SHRUBS	CODE	BOTANICAL / COMMON NAME
	COR	CORYNOPSIS TILLODIA / Hawaiian Ti Plant Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base	
	CR1	CRINUM AUGUSTINUM / Crinum Lily Min. 7 Gal. 30" Ht. x 30" Spr. 30" O.C. Full and Dense Shrub, Full to Base	
	LARGE SHRUBS	CODE	BOTANICAL / COMMON NAME
	GHR	CHRYSOBALANUS ISACO / Red Tip / Red Tip Coccolam Min. 7 Gal. 36" Ht. x 36" Spr. 36" O.C. Full and Dense Shrub, Full to Base	
	CLU	CLUSIA GUTTIFERA / Small Leaf Clusia Min. 7 Gal. 36" Ht. x 36" Spr. 36" O.C. Full and Dense Shrub, Full to Base	
	POD	PODOCARPUS MACROPHYLLUS / Podocarpus Min. 7 Gal. 36" Ht. x 36" Spr. 36" O.C. Full and Dense Shrub, Full to Base	
	MEDIUM SHRUBS	CODE	BOTANICAL / COMMON NAME
	CHR2	CHRYSOBALANUS ISACO / Red Tip / Red Tip Coccolam Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base	
	FR1	FRAXINUS MICROCARPA / Green Island / Green Island Frax Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base	
	IE2	ILEX X ATTENUATA / Eagleston / Eagleston Holly Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base	
	IE3	ILEX X ATTENUATA / Eagleston / Eagleston Holly Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base	
	MUH	MUEHLENBERGIA CAPILLARIS / Pink Muhly Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base	
	SCH	Scheffera arboricola / Variegata / Variegated Scheffera Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base	
	SMALL SHRUBS	CODE	BOTANICAL / COMMON NAME
	ANN	ANNALS / Seasonal Annuals Min. 4" Pots, Full Flowering when installed, 12" O.C.	
	DUR	DURANTA ERECTA / Golden Dendrobia Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base	
	EQU	Equisetum hyemale / Horsetail Min. 1 Gal. 12" Ht. x 12" Spr. 2" O.C. Full and Dense Shrub, Full to Base	
	JAS	JASMINUM VILLOSA / Wax Jasmine Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base	
	PEN	PENTAS LANCEOLATA / Red Pentas Min. 3 Gal. 18" Ht. x 18" Spr. 18" O.C. Full and Dense Shrub, Full to Base	
	GROUND COVERS	CODE	BOTANICAL / COMMON NAME
	NO SYMBOL	SOD2	Cynodon dactylon / Celebration Bermuda Grass Rolled sod only. Machine cut at a uniform soil thickness of 0.75 inch, plus or minus 0.25 inch, at time of cutting, unless otherwise agreed upon. Measurement for thickness shall exclude top growth and thatch. Staggered panels laid light, backfill & roll.
	NO SYMBOL	MULCH1	Match / Shredded Manure Mulch
	NO SYMBOL	SOD	Stenotaphrum secundatum CitraBlue™ / CitraBlue™ St. Augustine Grass Rolled sod only. Machine cut at a uniform soil thickness of 0.75 inch, plus or minus 0.25 inch, at time of cutting, unless otherwise agreed upon. Measurement for thickness shall exclude top growth and thatch. Staggered panels laid light, backfill & roll.
	NO SYMBOL	TURF	Synthetic Turf
	ROOT BARRIER	48" Depth Min., Install Per Manufacturer's Specifications, Refer to Landscape Details for More Information	

The Village of Wellington Town Center Phase 2

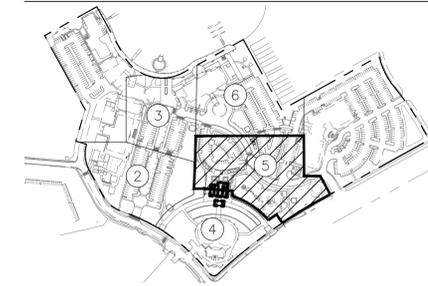
Landscape Plan



Date: May 2021
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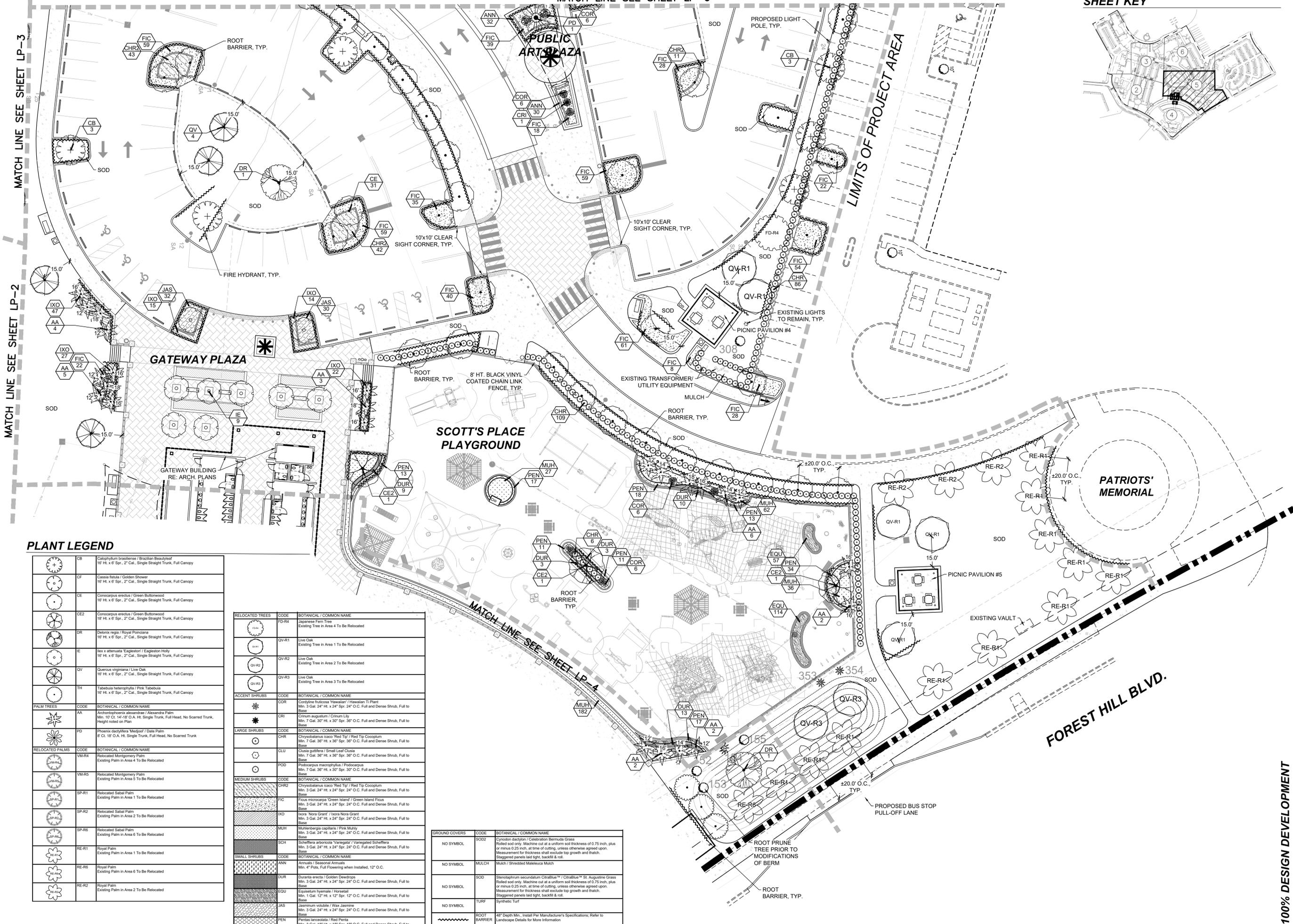
100% DESIGN DEVELOPMENT



MATCH LINE SEE SHEET LP-3

MATCH LINE SEE SHEET LP-2

LIMITS OF PROJECT AREA



PLANT LEGEND

	CB	Calophyllum brasiliense / Brazilian Beautyleaf 18' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	CF	Cassia fistula / Golden Shower 18' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	CE	Conocarpus erectus / Green Buttonwood 18' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	CE2	Conocarpus erectus / Green Buttonwood 18' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	DR	Delonix regia / Royal Poinciana 18' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	IE	Eucalyptus tereticornis / Eucalyptus 18' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	QV	Quercus virginiana / Live Oak 18' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	TH	Tabebuia heterophylla / Pink Tabebuia 18' Ht. x 6' Spr., 2" Cal., Single Straight Trunk, Full Canopy
	PALM TREES	
	AA	Botanical / Common Name Anchored Phoenix palm / Alexandra Palm Min. 12' Cl. 14-18' O.A. Ht. Single Trunk, Full Head, No Scarred Trunk, Height noted on Plan
	PD	Phoenix dactylopera / Date Palm 8' Cl. 18' O.A. Ht. Single Trunk, Full Head, No Scarred Trunk
	RELOCATED PALMS	
	VM-R4	Relocated Montgomery Palm Existing Palm in Area 4 To Be Relocated
	VM-R5	Relocated Montgomery Palm Existing Palm in Area 5 To Be Relocated
	SP-R1	Relocated Sabal Palm Existing Palm in Area 1 To Be Relocated
	SP-R2	Relocated Sabal Palm Existing Palm in Area 2 To Be Relocated
	SP-R6	Relocated Sabal Palm Existing Palm in Area 6 To Be Relocated
	RE-R1	Royal Palm Existing Palm in Area 1 To Be Relocated
	RE-R6	Royal Palm Existing Palm in Area 6 To Be Relocated
	RE-R2	Royal Palm Existing Palm in Area 2 To Be Relocated

	RELOCATED TREES	
	FD-R4	Botanical / Common Name Japanese Fern Tree Existing Tree in Area 4 To Be Relocated
	QV-R1	Live Oak Existing Tree in Area 1 To Be Relocated
	QV-R2	Live Oak Existing Tree in Area 2 To Be Relocated
	QV-R3	Live Oak Existing Tree in Area 3 To Be Relocated
	ACCENT SHRUBS	
	DOR	Botanical / Common Name Cordyline frutescens 'Hawaiian Ti Plant' Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	CRI	Citrus augustum / Citrus Lily Min. 7 Gal. 30" Ht. x 30" Spr. 36" O.C. Full and Dense Shrub, Full to Base
	LARGE SHRUBS	
	CHR	Chrysobalanus cacao / Red Tip / Red Tip Coccoloba Min. 7 Gal. 36" Ht. x 36" Spr. 36" O.C. Full and Dense Shrub, Full to Base
	CLU	Clusia guifera / Small Leaf Clusia Min. 7 Gal. 36" Ht. x 36" Spr. 36" O.C. Full and Dense Shrub, Full to Base
	POD	Podocarpus macrophyllus / Podocarpus Min. 7 Gal. 36" Ht. x 30" Spr. 30" O.C. Full and Dense Shrub, Full to Base
	MEDIUM SHRUBS	
	CHR2	Chrysobalanus cacao / Red Tip / Red Tip Coccoloba Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	FC	Ficus microcarpa 'Green Island' / Green Island Ficus Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	NO	Norea 'Norea Gren' / Norea Norea Gren Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	MUH	Muhlenbergia capillaris / Pink Muhly Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	SCH	Schefflera arboricola 'Variegata' / Variegated Schefflera Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	SMALL SHRUBS	
	ANN	Botanical / Common Name Annuals / Seasonal Annuals Min. 4" Pots, Full Flowering when Installed, 12" O.C.
	DUR	Duranta erecta / Golden Dweadows Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	EQU	Equisetum hyemale / Horsetail Min. 1 Gal. 12" Ht. x 12" Spr. 12" O.C. Full and Dense Shrub, Full to Base
	JAS	Jasminum volatile / Wax Jasmine Min. 3 Gal. 24" Ht. x 24" Spr. 24" O.C. Full and Dense Shrub, Full to Base
	PEN	Persea lanceolata / Red Panta Min. 3 Gal. 18" Ht. x 18" Spr. 18" O.C. Full and Dense Shrub, Full to Base

	GROUND COVERS	
	SO2Z	Cynodon dactylon / Celebration Bermuda Grass Rolled sod only. Machine cut at a uniform soil thickness of 0.75 inch, plus or minus 0.25 inch, at time of cutting, unless otherwise agreed upon. Measurement for thickness shall exclude top growth and mat. Staggered panels laid tight, backfill & roll.
	MULCH	Mulch / Shredded Mulch
	SOD	Stenotaphrum secundatum / Citrillina™ / Citrillina™ St. Augustine Grass Rolled sod only. Machine cut at a uniform soil thickness of 0.75 inch, plus or minus 0.25 inch, at time of cutting, unless otherwise agreed upon. Measurement for thickness shall exclude top growth and mat. Staggered panels laid tight, backfill & roll.
	TURF	Synthetic Turf
	ROOT BARRIER	48" Depth Min., Install Per Manufacturer's Specifications; Refer to Landscape Details for More Information

**The Village of Wellington
 Town Center Phase 2**

Landscape Plan



Scale: 1" = 20'-0"

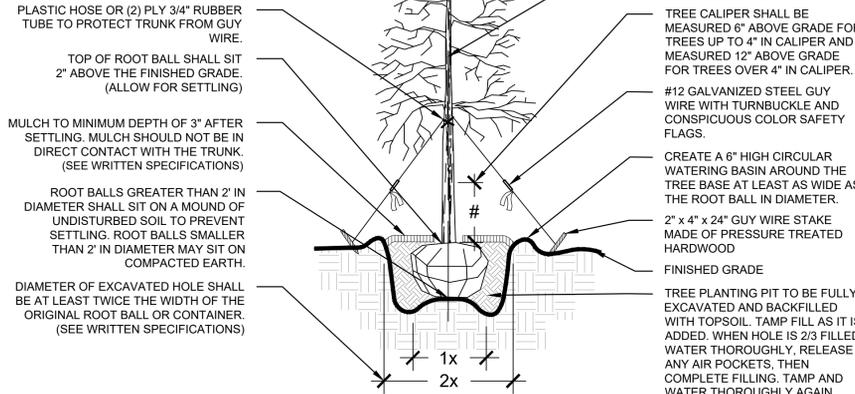
Date: May 2021
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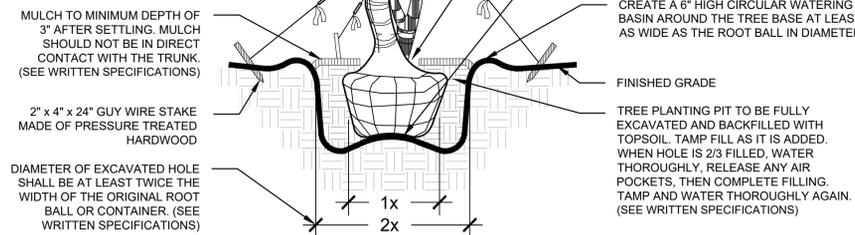


- NOTES:
1. ALL TREES SHALL MEET FLORIDA #1 OR BETTER STANDARDS.
 2. REMOVE ALL NON-ORGANIC BINDING AND SHIPPING MATERIAL FROM THE TREE AND ROOT BALL.
 3. ANY PRUNING SHALL BE COMPLETED AT THE DIRECTION OF THE OWNER OR LANDSCAPE ARCHITECT.
 4. NO NAILS SHALL BE DRIVEN INTO TREE AND TRUNK SHALL BE FREE OF ANY MAJOR SCARS.
 5. ADD FERTILIZER AS DIRECTED IN WRITTEN SPECIFICATIONS.



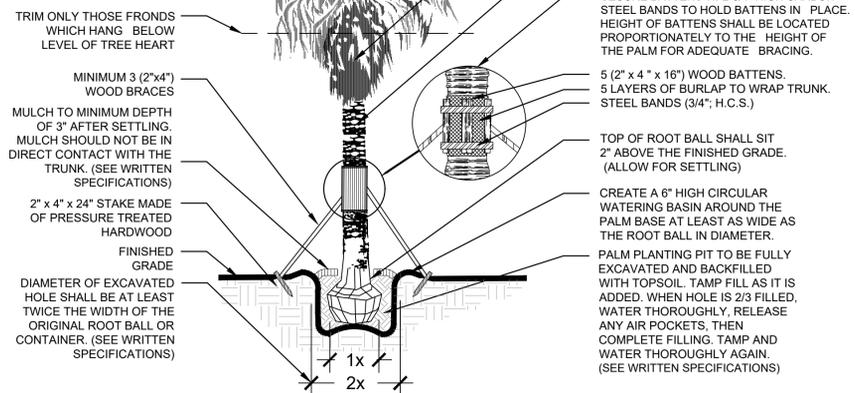
TREE PLANTING DETAIL
NOT TO SCALE

- NOTES:
1. ALL TREES SHALL MEET FLORIDA #1 OR BETTER STANDARDS.
 2. REMOVE ALL NON-ORGANIC BINDING AND SHIPPING MATERIAL FROM THE TREE AND ROOT BALL.
 3. ANY PRUNING SHALL BE COMPLETED AT THE DIRECTION OF THE OWNER OR LANDSCAPE ARCHITECT.
 4. NO NAILS SHALL BE DRIVEN INTO TREE AND TRUNK SHALL BE FREE OF ANY MAJOR SCARS.
 5. ADD FERTILIZER AS DIRECTED IN WRITTEN SPECIFICATIONS.



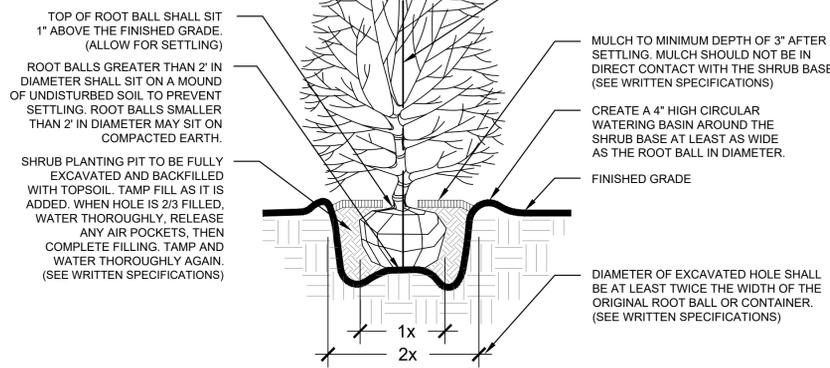
IRREGULAR & MULTI-STEM TREE PLANTING DETAIL
NOT TO SCALE

- NOTES:
1. ALL PALMS SHALL MEET FLORIDA #1 GRADE STANDARDS OR BETTER
 2. REMOVE ALL NON-ORGANIC BINDING AND SHIPPING MATERIAL FROM THE PALM AND ROOT BALL.
 3. NO NAILS SHALL BE DRIVEN INTO PALM AND TRUNK SHALL BE FREE OF ANY MAJOR SCARS.
 4. ADD FERTILIZER AS DIRECTED IN WRITTEN SPECIFICATIONS.

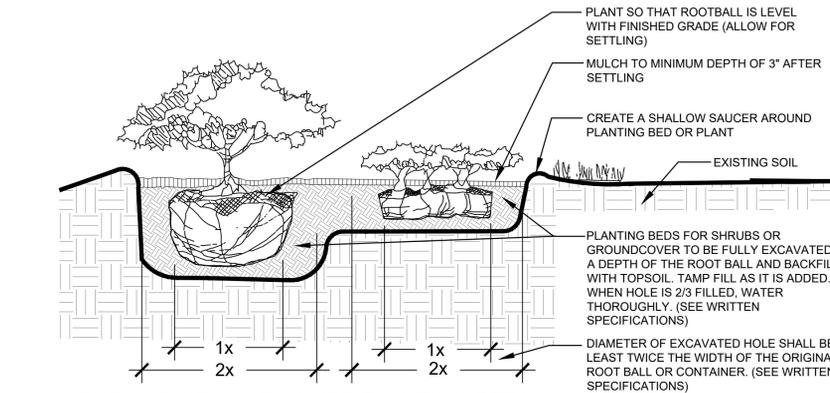


PALM PLANTING DETAIL
NOT TO SCALE

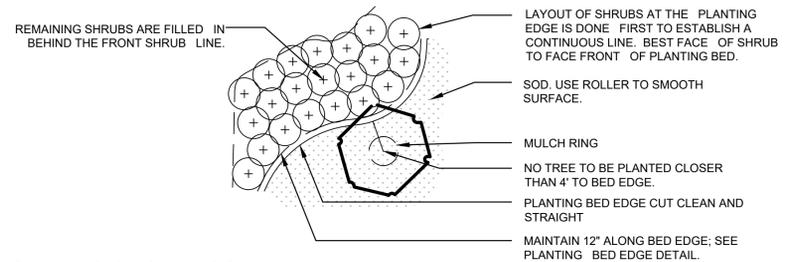
- NOTES:
1. ALL SHRUBS SHALL MEET FLORIDA #1 GRADE OR BETTER STANDARDS.
 2. REMOVE ALL NON-ORGANIC BINDING AND SHIPPING MATERIAL FROM THE SHRUB AND ROOT BALL.
 3. ANY PRUNING SHALL BE COMPLETED AT THE DIRECTION OF THE OWNER OR LANDSCAPE ARCHITECT.
 4. ADD FERTILIZER AS DIRECTED IN WRITTEN SPECIFICATIONS.



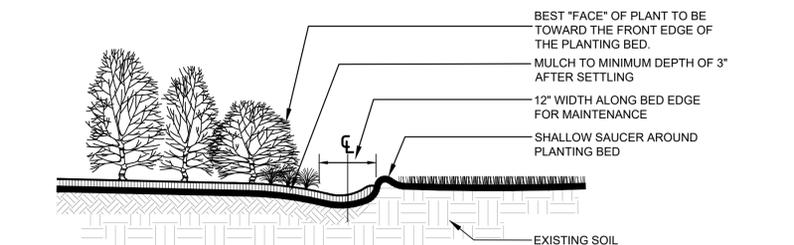
LARGE SHRUB PLANTING DETAIL
NOT TO SCALE



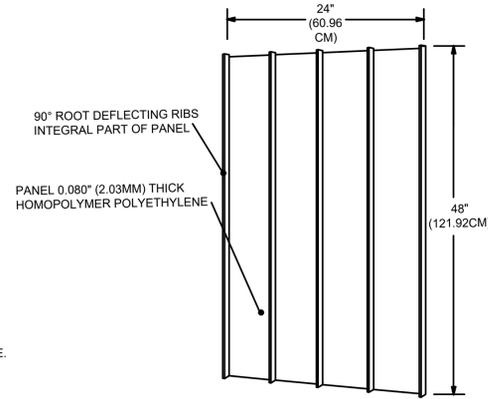
SHRUB AND GROUND COVER PLANTING DETAIL
NOT TO SCALE



SHRUB & GROUND COVER LAYOUT DETAIL
NOT TO SCALE



PLANTING BED EDGE DETAIL
NOT TO SCALE



UB 48-2 SPECIFICATIONS
48" DEEPROOT TREE ROOT BARRIER

SPECIFIED TREE ROOT BARRIERS ARE A MECHANICAL BARRIER AND ROOT DEFLECTOR TO PREVENT TREE ROOTS FROM DAMAGING HARDSCAPES, AND LANDSCAPES. ASSEMBLED IN 2 FOOT (61 CM) LONG MODULES TO CREATE VARYING LENGTHS FOR LINEAR APPLICATION DIRECTLY BESIDE A HARDSCAPE ELEMENT, ADJACENT TO ONE SIDE OF A TREE, OR FOR LARGE PERIMETER SURROUND APPLICATIONS WITH A MINIMUM 8 FOOT (2.43 M) DIAMETER USING 12 PANELS.

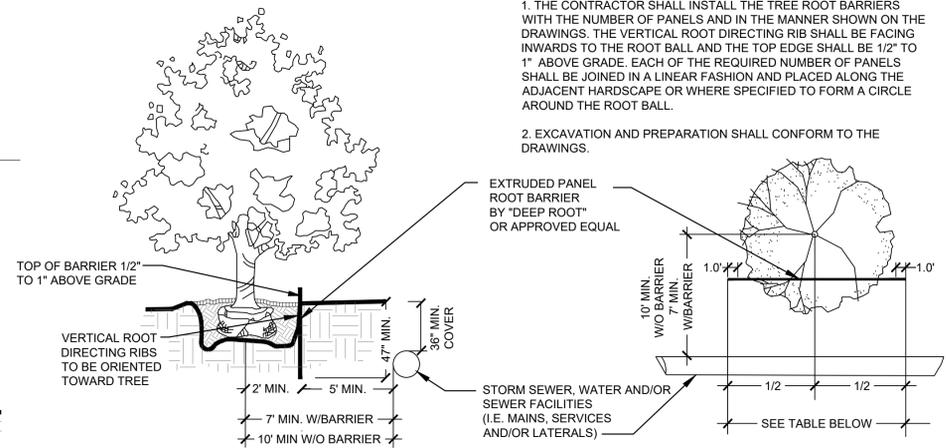
A. MATERIALS
1. THE CONTRACTOR SHALL FURNISH AND INSTALL TREE ROOT BARRIERS AS SPECIFIED. THE TREE ROOT BARRIERS SHALL BE EITHER PRODUCT UB 48-2 AS MANUFACTURED BY DEEPROOT PARTNERS, L.P., 81 LANGTON STREET, SUITE 4, SAN FRANCISCO, CA 94103 (800.458.7668), OR APPROVED EQUAL. THE BARRIER SHALL BE BLACK, EXTRUDED PANELS, OF 0.80" (2.03MM) WALL THICKNESS IN MODULES 24" (61CM) LONG 48" (122 CM) DEEP. MANUFACTURED WITH HOMOPOLYMER POLYETHYLENE WITH ADDED ULTRAVIOLET INHIBITORS; RECYCLABLE. EACH 2 FOOT (61CM) SECTION SHALL HAVE:

NOT LESS THAN 4 MOLDED INTEGRAL VERTICAL ROOT DIRECTING RIBS OF A MINIMUM 0.080" (2.03MM) THICKNESS PROTRUDING 1/2" (12.7MM) AT 90° FROM INTERIOR OF THE BARRIER PANEL, SPACED 6" (154 MM) APART. SEE PANEL DRAWING.

AN INTEGRATED JOINING SYSTEM PROVIDING FOR INSTANT ASSEMBLY BY SLIDING ONE PANEL INTO ANOTHER.

B. CONSTRUCTION AND INSTALLATION
1. THE CONTRACTOR SHALL INSTALL THE TREE ROOT BARRIERS WITH THE NUMBER OF PANELS AND IN THE MANNER SHOWN ON THE DRAWINGS. THE VERTICAL ROOT DIRECTING RIB SHALL BE FACING INWARDS TO THE ROOT BALL AND THE TOP EDGE SHALL BE 1/2" TO 1" ABOVE GRADE. EACH OF THE REQUIRED NUMBER OF PANELS SHALL BE JOINED IN A LINEAR FASHION AND PLACED ALONG THE ADJACENT HARDSCAPE OR WHERE SPECIFIED TO FORM A CIRCLE AROUND THE ROOT BALL.

2. EXCAVATION AND PREPARATION SHALL CONFORM TO THE DRAWINGS.



LANDSCAPE AND ROOT BARRIER NOTE:

TREES SHOWN ON THIS PLAN ARE FOR GRAPHIC REPRESENTATION ONLY. TREE SPACING IS BASED ON DESIGN REQUIREMENTS AND THE TREES SHOWN ON THESE PLANS ATTEMPT TO ACCOMPLISH THAT SPACING WHILE MAINTAINING THE REQUIRED SETBACKS FROM UTILITIES AND OTHER INFRASTRUCTURE. TREES MAY BE FIELD ADJUSTED TO AVOID CONFLICTS WITH DRIVEWAYS AND UNDERGROUND UTILITIES. IN ANY CASE THE TREES SHALL BE LOCATED IN THE FIELD IN ACCORDANCE WITH THE PLANTING DETAILS SHOWN HEREON.

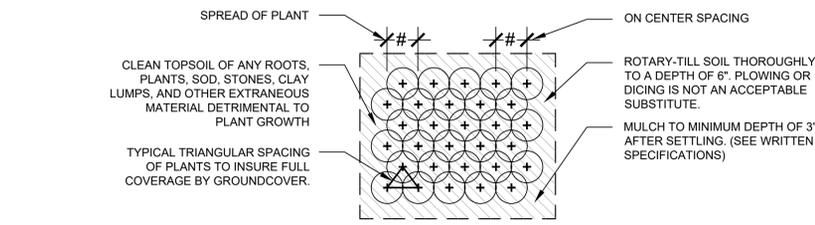
ADDITIONALLY, TREES ARE TO BE INSTALLED WITH A TEN FOOT (10') SEPARATION FROM ANY STORM SEWER, WATER AND/OR SEWER MAIN AND/OR SERVICE, HYDRANTS, AND LIFT STATIONS. IF A TEN FOOT (10') SEPARATION CANNOT BE ACHIEVED, THE TREE CAN BE INSTALLED WITH A ROOT BARRIER SYSTEM. REFER TO THE "ROOT BARRIER" DETAIL FOR INSTALLATION REQUIREMENTS. HOWEVER, IN NO CASE SHALL A TREE ENCROACH INTO A UTILITY EASEMENT WITHOUT PRIOR APPROVAL FROM THE UTILITY PROVIDER AND ONLY SOD CAN BE INSTALLED WITHIN 7.5' OF A FIRE HYDRANT UNLESS PRIOR APPROVAL BY THE FIRE MARSHAL AND UTILITY PROVIDER.

ROOT BARRIER DETAIL
NOT TO SCALE

- NOTES:
1. MULCH RINGS SHALL BE PROVIDED FOR ALL TREES AND PALMS PLANTED IN SODDED AREAS OR AS OTHERWISE NOTED ON LANDSCAPE PLAN.



MULCH RING IN SOD DETAIL
NOT TO SCALE



GROUND COVERS & ROOTED CUTTING PLANTING DETAIL
NOT TO SCALE

Urban design studio

Urban Planning & Design
Landscape Architecture
Communication Graphics

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561.366.1100 FAX 561.366.1111
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**The Village of Wellington
Town Center Phase 2**

Landscape Details

Date: May 2021
Project No.: 18-043.002
Designed By: TSP / JEB
Drawn By: TSP / JEB
Checked By: CWW

Revision Dates:
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LP-7
of 8

100% DESIGN DEVELOPMENT

SECTION 0290
TREES, SHRUBS AND GROUND COVER

PART I - GENERAL

By bidding on this project and/or signing a contract for landscape work, the Contractor acknowledges that he/she has read and understood these specifications in their entirety, that he/she has inspected the site, and that he/she will abide by all plans, specifications, and conditions found herein. Any perceived conflicts or concerns within the specifications or on the plant list, including availability of materials, are to be brought to the attention of the Landscape Architect prior to bid submission.

1.01 WORK INCLUDED

- A. Contractor shall obtain or ensure that all necessary permits have been granted to the Owner for work on the Owner's properties or in any adjacent easements prior to commencement of work.
- B. All planting and construction work shall be executed as shown on the provided drawings, schedules, and specifications.
- C. Any additional work or materials required to install landscape elements as called for on the plans, specifications or plant list shall be provided and installed by the Contractor.
- D. Finish Grade Elevations: 2 inch below top of pathway edging.
- E. The Contractor shall be entirely responsible for all work until final acceptance by the Owner. The Contractor shall protect all materials and work against injury and shall provide and maintain all necessary guards for the protection of the public. He shall be held responsible for any negligence during the execution of the work.

1.02 QUALITY ASSURANCE

- A. All work specified herein shall be performed by a single firm specializing in landscape work. The Landscape Architect and the Owner retain the right to approve any proposed subcontractors prior to awarding the contract.
- B. All landscape materials with certificates of inspection required by governing authorities. Comply with all regulations applicable to landscape materials.
- C. Package standard products with manufacturers certified analysis. For other materials, provide analysis by recognized laboratory made in accordance with methods established by the Association of Official Agricultural Chemists, wherever applicable.
- D. Provide trees, palms, shrubs and groundcover grown in a recognized nursery in accordance with good horticultural practice. Materials must be healthy and vigorous, free of disease, insects, eggs, larvae, and defects such as decay, rot, knots, sun scald, injuries, abrasions, and poor or unusual form. No collected material will be permitted unless specific written approval is granted.
- E. Plants and specimens. If specified landscape material is not available at time of planting, submit proof of non-availability and provide a list of proposed equivalent material. Once authorized, adjustments to the contract will be made. Owner is not financially responsible for unauthorized substitutions.
- F. Plant materials of larger size than specified may be used if acceptable to Landscape Architect and if sizes of root balls are increased proportionately. Installation of larger sizes will not increase contract amount unless specifically authorized by Owner.
- G. Owner and Landscape Architect reserve the right to inspect, approve or reject at any time plant materials or work either at the nursery or at the site which does not meet the condition in the plans, plant list or specifications.
- H. The Contractor shall be responsible for planting the landscape in complete accordance with all applicable codes, ordinances, and laws. Any modification made to conform with said codes, laws and ordinances, after the bid is awarded, shall be completed at the Contractor's expense at no additional cost to the Owner.

1.03 SUBMITTALS

- A. Certification: Submit certificates of inspections as required by governmental authorities, and manufacturers or vendor's certified analysis for soil amendments and fertilizer materials. Submit other data substantiating that materials comply with specified requirements.
- B. Submit seed vendor's certified statement for each grass seed mixture required, stating botanical and common name, percentage by weight, and percentage of purity, germination, and seed count for each seed species.
- C. Planting Schedule: Submit planting schedule showing schedule dates for each type of planting in each area of site.
- D. Maintenance Instructions: Submit typewritten procedures for maintenance of landscape work, through final acceptance.

1.04 DELIVERY, STORAGE AND HANDLING

- A. Packaged Materials: Deliver packaged materials in original containers showing manufacturer's guaranteed weight analysis and name of manufacturer. Protect materials from damage and deterioration during delivery and storage.
- B. Trees, shrubs, and groundcover: Provide freshly dug trees, palms, and shrubs. Do not prune prior to delivery. All plants shall be handled and stored so that they are adequately protected from drying out, from sun or wind burn, and from any other injury at all times. Any plant determined to be wilted or burned may be rejected at any time, whether in the ground or not. Plants shall be handled only by their containers or root balls, not by stems or trunks. Trees and shrubs shall be adequately protected from sun and wind. The on-site storage area shall be approved prior to the delivery of any plant materials. Do not bend or bind plants in such a manner as to damage bark, break branches, or destroy natural shape. Provide protective covering during delivery.
- C. Deliver plant materials after preparations for planting are complete, and plant immediately. Root balls shall be adequately protected at all times from sun and wind. Balled and burlapped (BBB) plants that cannot be planted immediately upon delivery shall be set on the ground and protected by having soil, wet peat, or other acceptable material covering the roots or balls keeping them moist.
- D. Do not remove container grown stock from containers until planting time.
- E. Label at least one tree, one palm and one shrub of each variety with a securely attached waterproof tag bearing legible designation of botanical and common name, if requested by Owner.
- F. Sod: Time delivery so that sod will be placed within 24 hours after stripping. Protect sod against drying and breaking of rolled strips.

1.05 JOB CONDITIONS

- A. Proceed with and complete landscape work as rapidly as portions of site become available.
- B. Utilities: Determine location of overhead and underground utilities and perform work in a manner which will avoid possible damage. Hand excavate, as required. Forty eight (48) hours prior to digging, call the appropriate Utility Authority to have all utilities identified and marked in order to avoid conflicts.
- C. Protection of Existing Structures: All existing buildings, walks, walls, paving, piping, and other items of construction and planting already completed or established shall be protected from damage. All damage resulting from negligence shall be repaired or replaced, including but not limited to marks on pavers and cracks within existing walkways caused by the Contractor. The Owner may, at his discretion have any damage repaired by others and subsequently costs back-charged to the Contractor.
- D. Protection of Existing Plant Material: The Contractor shall be responsible for all unauthorized cutting or damage to existing trees or shrubs caused by careless operation of equipment, stockpiling of materials, etc. This shall include compaction by driving or parking inside the drip-line of any tree, or spilling of oil, gasoline, or other deleterious materials within the drip-line of any tree. No materials shall be burned.
- E. Excavation: When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, or obstructions, notify Landscape Architect before planting.

PART II - PRODUCTS

2.01 TOPSOIL

- A. The Contractor is required to obtain a soil sample and perform a soil analysis test to determine the existing soil composition and conclude whether it complies with the composition criteria below.
- B. Where topsoil does not meet the specified limits within the project site, it shall be furnished. Throughout all parts of site where finish grades and contour lines differ from existing contour lines, bring to finish grade contours shown on "Grading Plan."
- C. Topsoil shall be friable, fertile soil with representative characteristics of local soils. It shall be free of heavy clay, marl, stone, extraneous lime, plant roots, refuse and/or solid waste, sticks, brush, construction demolition debris, and any other deleterious materials. There shall be no noxious weeds or weed seeds (i.e., nut grass, Bermuda grass and the like). In no case shall there be more than five percent (5%) by dry weight of clay lumps or stones larger than 1". It shall test in the pH range of 6.0 to 7.2 and shall contain no substance that will impede plant growth. The Contractor shall have topsoil laboratory-tested at his expense and approved by Landscape Architect or Owner prior to material delivery.

Topsoil shall conform to the following specifications:

COMPONENTS	DRY WEIGHT MEASURE	PARTICLE SIZE
Organic Matter	2% - 7%	< 0.074 mm
Silt/Clay	2% - 10%	
Sand	85% - 98%	0.075 - 3.00 mm
Gravel	0% - 5%	4.75 mm - 1 inch

The analysis shall also show the following ranges:

Soluble salt	2 - 10 mgms/cm
Nitrogen	25-150 PPM
Phosphorus	26 - 39 PPM
Potassium	50 - 250 PPM
Calcium	500 - 2500 PPM
Magnesium	50 - 500 PPM
Iron	2.5 - 25 PPM
Manganese	2.5 - 25 PPM
Zinc	2.5 - 25 PPM
Copper	1.3 - 5 PPM
Boron	0.5 - 1.5 PPM
Sulphur	15 - 200 PPM
Chlorine	less than 100 PPM
Sodium	less than 10
Nematodes	none

2.02 SOIL AMENDMENTS AND FERTILIZERS

- A. Peat Moss: Peat moss shall be a commercial, baled sphagnum material, free of woody material, minerals, or foreign matter, with a pH range of 3.0 - 5.5.
- B. Sand: Sand shall be clean, sharp, and free of all deleterious material.
- C. Lime: Natural limestone (Dolomite) containing not less than 85% of total carbonates, ground so that not less than 90% passes a 10-mesh sieve and not less than 50% passes a 100-mesh sieve.
- D. Humus Soil Conditioner: Consisting of yard trimmings and biosolids co-product.
- E. Fertilizer: Fertilizer shall be a commercial grade, granular, slow release "pre-plant" type fertilizer.
 - 1. Fertilizer shall be delivered to the site in the original unopened container, bearing the manufacturer's guaranteed analysis. Any opened, caked, or damaged fertilizer will be rejected.
 - 2. Tree, palm, shrub and grass fertilizer shall be "UF (University of Florida) Formulated" product 8-2-12 R or 8-2-13 with minor elements as an all-purpose fertilizer, or equal, and applied according to the manufacturer's direction.
 - 3. Application of fertilizer shall be consistent with the current recommendations of the Green Industries - Best Management Practices.
 - 4. Fertilizer shall be applied by an individual who has successfully completed the GI-BMP program and holds a current Urban Fertilizer License or as required by the State and Local Ordinances.

2.03 WATER

- A. All water necessary for planting and maintenance shall be of satisfactory quality to sustain adequate growth of plants and shall not contain harmful, natural or man-made elements detrimental to plants.

2.04 OTHER LANDSCAPE PRODUCTS

- A. Mulch: Mulch shall be shredded Melaleuca, Eucalyptus, Grade "A" Pine Bark Nuggets, or approved equal, free of foreign materials and weed seeds. Minimum depth after settling shall be 3".
- B. Guying and Bracing: Tree guying and bracing shall be the responsibility of the Contractor in accordance with the planting details to insure stability and maintain plants in an upright position.
- C. Anti-desiccant: Anti-desiccant shall be "Wilpro" or equal, if specified on plans.
- D. Tree Wound Paint: Tree wound paint shall be an asphaltic base paint containing an antibacterial agent, specially prepared for tree surgery work.
- E. Super Absorbent Polymer: "Terra Sorb" or approved equal as packaged in 3 oz. Handy Pac containers. For trees and palms use 36" diameter root ball use two 3 oz. For trees and palms over 36" diameter root ball use two 3 oz.
- F. 3 Handy Pacs. Broadcast throughout planting hole and backfill as per manufacturers specifications.

Apply dry, using the following amounts:

- 1. For trees and palms up to 36" diameter root ball, use one 3 oz. Handy Pac.
- 2. For trees and palms over 36" diameter root ball use two 3 oz.
- 3. Handy Pacs. Broadcast throughout planting hole and backfill as per manufacturers specifications.

For container grown plants:

Container Size	Application Rate
1 Gallon	1 Handy Pac / 9 Containers
3 Gallons	1 Handy Pac / 4 Containers
7-10 Gallons	1 Handy Pac / 2 Containers
20 Gallons	1 Handy Pac / 1 Container

2.05 PLANT MATERIAL

- A. Plant list is part of this specification section. The Contractor shall be responsible for furnishing and installing all plant materials shown on the drawings and plant list. In case of conflict between the two documents, the drawings shall rule.
- B. Quality: Trees, palms, shrubs and groundcover shall be Florida #1 or better as defined in the latest edition of the Grades and Standards for Nursery Plants, Florida Department of Agriculture and Consumer Services. Multi-trunked trees will not be accepted unless they are specifically specified in the planting plans. All plants shall have a normal habit of growth and shall be sound, healthy, and vigorous. Trees shall have normal well-developed branching structures and vigorous root systems that are not root or container bound.
 - 1. Balled and burlapped plants (BB or b&b) shall be dug with firm, natural balls of earth, of sufficient depth and diameter to include the fibrous and feeding roots. Plants with cracked, dry, or broken balls will not be accepted, nor will plants with root balls of insufficient size.
 - 2. All plants, other than those collected on site, shall be nursery grown in accordance with good horticultural practices and under climatic conditions similar to the site for at least two years. Transplanting or root pruning shall have taken place during growth.
- C. Size: Plant sizes shown in the plant list are minimums. When a plant size is given by height and spread, the minimums shall be maintained. All trees and shrubs shall be measured when their branches are in a normal position. Spread dimensions specified refer to the main body of the plant and not from extreme branch tip to tip. Height is measured from the soil line to the average height of the canopy. Measurement does not include any terminal growth; the container or root ball is also not included.

- Unless otherwise specified, the determining measurement for trees shall be caliper, which shall be measured 6" above the ground for trees up to 4" in caliper, and 12" above the ground for trees over 4" caliper.

2.06 GRASS MATERIALS

- A. Types: Sod type shall be as specified on the provided landscape plan and associated plant schedule.
- B. Dimensions: The sod shall be taken up in commercial size rectangles, preferably 12-inch x 24-inch.
- C. Measurement: Sod shall be measured on the basis of square footage. Contractor shall be responsible for complete coverage based on the square footage shown on plans; therefore, Contractor shall factor in cutting and shrinkage of materials.
- D. The sod shall be sufficiently thick to provide a dense stand of live grass. The sod shall be live, fresh and uninjured, at the time of planting. It shall be a soil mat of sufficient thickness, at least 2" thick, adhering firmly to the roots to withstand all necessary handling. It shall be free of weeds and other grasses. It shall be planted as soon as possible after being dug, and shall be shaded and kept moist from the time it is dug until it is planted. After approval, the area from which the sod is to be harvested shall be closely mowed and raked as necessary to remove excessive top growth and debris.

2.07 REJECTION, SUBSTITUTION, AND RELOCATION

- A. All plants not conforming to the requirements herein specified shall be considered defective and such plants shall be marked as rejected and removed from the site whether in the ground or not, at the Contractor's expense. Such removal shall take place immediately and new plants shall be brought in as replacements. The plant materials must meet all applicable inspections required by law.
- B. The Owner or Landscape Architect also reserves the right to require that plants be relocated after installation if their initial installation does not conform to the plans or the intent of the plans, or if the original location poses an unforeseen threat to other facilities, human life, health, or safety to life utilities. Such relocation shall be at the Contractor's expense.

PART III - EXECUTION

3.01 GENERAL

- A. Proceed with and complete landscape work as rapidly as portions of the site become available.
- B. No planting shall be done until all operations in conjunction with the installation of the sprinkler system have been completed, final grades have been established, planting areas have been properly graded and prepared.
- C. Adverse Conditions: When conditions potentially detrimental to plant growth are encountered during work, such as rubble or refuse fill, adverse drainage conditions, or obstructions, notify Owner or Landscape Architect before planting.
- D. Work Scheduling: Work is to be scheduled to establish a logical sequence of steps for completion of each type and phase of landscape work, in such a way as to correspond with, and avoid damage and conflict with, other disciplines on site.
- E. Coordination with Sod/Lawn: Plant trees, palms, and shrubs only after final grades are established, and prior to sodding or lawn establishment. If such planting must be done after lawn work, protect lawn/sod areas during planting and promptly repair any resulting damage.
- F. Timing:
 - 1. Planting work shall not be started until the final subgrade has been established, berms have been constructed and fine finished grading completed.
 - 2. Under no conditions shall work be done if weather or soil conditions are not satisfactory.
- G. Clean-up:
 - 1. At all times during the construction and installation, the site shall be maintained in a clean, orderly and safe condition. Streets and pavements shall be kept clean. Materials and equipment for planting work shall be limited to the quantity required for the particular phase of work currently underway on the job site.
 - 2. Protect landscape work and materials from damage due to landscape installation and maintenance operations, operations by other contractors and trades, and trespassers. Maintain protection during installation, Maintenance and Establishment periods. Treat, repair or replace damaged landscape work as directed.

3.02 SOIL PREPARATION

- A. Grading and soil preparation work shall be performed only during periods when best results can be obtained. If the moisture content of the soil is high enough that work would damage soil structure, grading and tilling operations shall be suspended.
- B. Before mixing in soil amendments, clean topsoil of roots, plants, sods, stones, clay lumps, and other extraneous materials harmful or toxic to plant growth. Apply Herbicide for weed control as needed.
- C. Mix specified soil amendments and fertilizers with topsoil at rates specified. Delay mixing of fertilizer if planting will not follow pacing of planting soil within a few days.

- D. For planting beds, mix planting soil either prior to planting or apply on surface of topsoil and mix thoroughly before planting.

- 1. Mix lime with dry soil prior to mixing of fertilizer.
- 2. Prevent lime from contacting roots of acid-loving plants.

- E. Unless drawings indicate otherwise, berms shall not exceed a 3:1 slope. Berms near buildings or in potentially troublesome drainage situations shall be checked for correct drainage by the project Engineer or Owner prior to planting.
- F. Free and shrub planting beds which fall within or near parking lot areas shall be completely excavated and back-filled with topsoil. All shell-rock or other base materials, and all subsoil and debris, shall be completely removed from beneath such planting areas, to a minimum depth of 24".
- G. All tree and/or shrub planting areas within 36" of building foundations, and any other planting areas where significant buried construction debris is encountered, shall be excavated to a minimum depth of 24" and backfilled with topsoil as specified elsewhere in these specifications.

3.03 TILLING

- A. Before mixing, clean soil of roots, plants, clay lumps, stones in excess of 1" in diameter, and other extraneous or potentially harmful materials.
- B. After all soil conditioning (and topsoil if called for on plans) has been spread at specified rates, the areas to be planted should be thoroughly rotary-tilled to a depth of six (6) inches. Plowing or dicing is not an acceptable substitute for rotary-tilling.

- 1. If the sprinkler system is installed after grading and tilling is completed, the backfill shall be retilled in the affected areas.
- 2. When the subsoil, grading, topsoil addition, soil conditioning, and tilling have been completed, all areas so treated shall be compacted and settled by application of heavy irrigation to a minimum depth of twelve (12) inches. Erosion scars shall be repaired.

3.04 FINE FINISH GRADING

- A. When relative grading has been completed and the soil has dried sufficiently to be readily worked, all lawn and planting areas shall be graded to the elevations indicated on the Engineering Plans. The top four (4) inches shall be completely free of stones larger than one (1) inch. Grades not otherwise indicated shall be uniform levels or slopes between points where elevations are given. Positive drainage away from buildings shall always be maintained. Surface drainage shall be directed as indicated on the drawings by remodeling surfaces to facilitate the natural run-off of water. All depressions where water will stand, all voids, erosion, settled trenches and excavations, and all ridges and rises shall be amended and/or removed leaving a smooth, even finish grade. If additional amended topsoil is required to accomplish the intent of this specification, it shall be according to the foregoing specifications for topsoil.

- 1. All area shall be graded so that the final grades are 2" below adjacent paved areas, sidewalks, valve boxes, moving strips, clean-outs, drains, etc., with appropriate adjustments for varying sod thicknesses. The intent is for water always to drain away from paving into lawns/sod areas.
- 2. Amending all erosion scars prior to beginning planting.
- 3. The Owner and/or his representative shall approve all final finish grades prior to planting.

- B. Prior to fine grading or the installation of plant material the Contractor shall obtain certification that the project area is at the grade levels proposed by the Civil Engineer or Landscape Architect from a licensed Surveyor. The Contractor shall fine grade the lawn and planting areas to bring the rough grade up to final finished grade allowing for thickness of sod and/or mulch depth.

3.05 PLANTING TREES AND PALMS

- A. Layout individual tree locations and areas for multiple plantings. Stake all locations and outline quality. Trees, palms, shrubs and groundcover shall be accepted before the start of planting work.
- B. Prior to preparation of tree pits, ascertain the location of all electrical cables, all conduits, all utility lines, oil tanks and supply lines, so that proper precautions may be taken not to disturb or damage any existing conditions. Properly maintain and protect existing utilities. Should such underground or overhead obstructions be encountered that interfere with planting, the Contractor will inform the Landscape Architect or Owner's representative and shall be consulted as to the adjustment of the location of plants to clear such obstruction or the relocation of the obstruction.
- C. Tree pit locations shall be staked by the Contractor and approved by the Owner or Landscape Architect before digging. Pits shall be excavated to the depth and width indicated and all subsoil removed.
- D. Protect all areas from excessive compaction by foot traffic or machinery when bringing trees to the planting area.
- E. All excavated holes shall have vertical sides with roughened surfaces and shall be of a size that is at least twice the width of the original plant container or ball. In all cases the holes shall be large enough to permit the roots to be planted without damage to the roots or root ball.
- F. Excess soil shall be removed or utilized as directed by Owner or the Owner's representative. If the excess soil will not be used, it is the responsibility of the Contractor to remove and dispose of the discarded soil off site in an acceptable manner.
- G. Tree pits shall be backfilled with a topsoil mixture as specified elsewhere in these specifications. Palm tree pits will be backfilled with a mixture of up to 95% sand and 5% organic material.
- H. Add fertilizer to tree pits as specified elsewhere in these specifications.
- I. Set balled and burlapped stock on a layer of 50% native soil and 50% topsoil compacted to a 6" depth. Loosen burlap from top of sides of the ball but no burlap shall be pulled from underneath. Remove non-organic binding material (if any) from tree ball. Immediately cut any damaged roots with clean shears. Use a plumb to assure that the tree is properly upright, begin filling the hole and tamping the fill material. When the hole is 2/3 filled, water thoroughly and probe with a stick to be sure that no air pockets remain. Re-plumb, complete filling the hole, re-tamp, and water again.
- J. Set container-grown stock as above, taking care not to damage roots when removing the container.
- K. During planting, do not cover the top of the root ball with the soil mixture. All rope, wires, burlap mesh etc., shall be removed from the root ball. No synthetic burlap is allowed on any plant material. Synthetic burlap is unacceptable for rootballs. Trees shall be planted so that the top of the root ball is 2" above final grade. Allow for settling. Any trees resting deeper or higher must be either reset or replaced at the discretion of the Owner or Landscape Architect; such work shall be at the Contractor's expense.
- L. Create a watering basin around each tree at least as wide as the root ball in diameter formed by a circular ridge of soil at least 6" high.
- M. Each planting basin shall be mulched to a minimum depth of 3" (after settling). Mulch shall not be applied until the tree has been thoroughly watered and two days have elapsed. Mulch should be placed so that it is not in direct contact with trunks.
- N. All trees are to be staked or guyed per these specifications. All stakes shall be painted a conspicuous color or shall be flagged for visibility and public safety; guy wires shall be flagged.
- O. Palms shall be planted per above specifications.

3.06 PLANTING SHRUBS, VINES, AND GROUND COVERS

- A. The locations of all plants, bed outlines and all other areas to be planted shall be clearly marked with agricultural gypsum or landscape marking paint then approved by the Owner or Landscape Architect before any holes are dug.
- B. No planting shall be done until the area concerned has been satisfactorily prepared in accordance with these specifications.
- C. No more plants shall be distributed in the planting area on any work day than can be planted and watered in that day.
- D. Unless otherwise indicated, all plants shall be planted in pits, centered as called for on the plant list, and set in 24" depth of topsoil as specified elsewhere in these specifications to such depth that the soil line of the plants will match the surrounding grade after settling. Plants shall be planted in a vertical position and oriented to give the best possible appearance or relationship to adjacent structures or features. Remove all inorganic containers or binding. All damaged roots shall be cut away cleanly. Planting soil shall be placed and compacted carefully around and under the plant. Water the hole is 2/3 filled, water thoroughly. The hole shall then be filled to finish grade and a shallow saucer shall be formed around each bed. After settling, soil shall be added as needed to bring the hole to grade level.
- E. Azaleas and other ericaceous and acid-loving plants shall be backfilled with a mixture of 20% topsoil and 80% acid peat. They shall be set so that the bases of the plants are slightly higher than the surrounding grade level. After settling, the Contractor shall re-sod all spots or areas within the where normal turf growth is not evident. Turf must be well established and free of bare spots and weeds to the satisfaction of the OWNER or Landscape Architect prior to final acceptance. All planted areas other than lawn shall be weeded at intervals of not more than ten (10) days.
- F. Application of fertilizer to be done between the fortieth (40) and fiftieth (50) day of the establishment period. Landscape Architect or Owner are to be notified a minimum of forty eight (48) hours in advance.
- G. Inproper maintenance or poor condition of any planting at the time of the termination of the scheduled Establishment Period may cause postponement of the final acceptance of the contract. Any material found to be dead, missing, or in poor condition during the establishment period, shall be replaced immediately. Maintenance shall be continued by the Contractor until the work is acceptable.
- H. Inspection and Final Acceptance:
 - 1. In all cases the Landscape Architect will perform an initial and final inspection at the beginning and end of the Establishment Period, respectively. It is the responsibility of the Contractor to notify the Owner or Landscape Architect of the beginning and ending of this period and to submit a written request for an inspection ten (10) days in advance.
 - 2. Following inspection(s), Landscape Architect will prepare a listing of outstanding items to be addressed prior to final acceptance. Final acceptance will be given once the outstanding items are completed, and the work performed to the satisfaction of the Landscape Architect and the OWNER.
- I. Any material that is 25% or more dying shall be considered dead and must be replaced at no charge. A tree shall be considered dead when the main leader has died or when 25% of the crown is dead. A tree that has suffered significant leaf drop but shows signs

3.07 ANNUAL AND SEASONAL COLOR BEDS

- A. Beds shall be mounded to a height 6" on top of the existing grade and composed of 50% topsoil and 50% compost.
- B. Soil shall be covered with 1/2" - 1" deep layer of Pine Fines Mulch or comparable product.

3.08 PRUNING

- A. All pruning shall be done in the presence of, and with the approval of, the Owner or

Landscape Architect. Only clean, sharp tools designed for the purpose shall be used. The goal of pruning is always to preserve and enhance the natural character of the plant. Pruning shall be done per modern horticultural practice (see National Arborist Standards, latest edition).

- B. Pruning shall be limited to the minimum necessary to remove injured twigs, branches, and fronds, to compensate for root loss suffered during digging and transplanting, and to thin and shape shrubs and trees. In no case shall more than 1/3 of the branching structure be removed. Damaged, cracked, frayed, split or skinned twigs, branches, or limbs shall be pruned back to the next sound outside lateral bud, branch or limb. The terminal bud or leader shall never be removed.
- C. Prune trees and shrubs to retain required height and spread. Remove the minimal amount of wood necessary on flowering trees and shrubs. Remove only dead or dying fronds from palms. Cuts over 1/2" in diameter shall be treated with tree wound paint; all exposed living tissue shall be covered.
- D. Existing Trees: If indicated on drawings, Contractor shall prune and thin existing trees on site. The use of climbing spurs is prohibited. All diseased, dead branches and those interfering with healthy plant growth shall be removed. Also, remove root suckers, low branches, and any others as directed by the Owner or Landscape Architect. Cuts shall be flush with the trunk or limb and shall be painted with tree paint. Remove any nails, wires, etc. fastened to the tree.

3.09 PLANTERS - DECORATIVE OR STRUCTURAL

- A. If specified, landscaping in planters shall be installed using the following method:
 - 1. Install 4" deep layer of fine crushed stone in bottom of planter.
 - 2. Install filter fabric over stone layer. Turn up edges of fabric all around.
 - 3. Install planting soil mix over filter fabric to within 3/2" of top for planter. Do not compact planting soil.
 - 4. Install plant material as specified elsewhere in these specifications.
 - 5. Install 3" of mulch over planting soil.

3.10 SODDING NEW LAWNS

- A. The Contractor shall sod all areas indicated and noted on the drawings. No sodding shall occur until areas to be sodded are cleared of any rough grass, weeds and debris, the ground has been graded and specified amendments have been added. See details for specific amendments as per sod type.
- B. Whenever a suitable area has been graded and is ready for sodding the Contractor shall, when directed by the Landscape Architect, proceed at once with the sodding of the available areas. Sodding shall be incorporated into the project at the earliest practical time in the life of the project. Sodding shall be done as indicated on the drawings for more than seventy two (72) hours shall be used unless specifically authorized by the Landscape Architect or Owner after his careful inspection thereof. Any sod which is not planted within twenty four (24) hours after cutting shall be stacked in an approved manner and maintained properly moistened.
- C. The sod shall be placed on the prepared surface, with edges in close contact, and shall be firmly and smoothly embedded by light tamping with appropriate tools. Sod shall be rolled with 1,000 lbs. roller unless waived by the Landscape Architect or Owner.
- D. Where sodding is used in drainage ditches, sod panels shall be set in a staggered pattern, such as to avoid a continuous seam along the line of flow. Offsets of individual strips shall not exceed six (6) inches. At the inside of the curbs, sod shall abut squarely and evenly.
- E. For trees and palms, sod may slide, due to height and slope, the Landscape Architect or Owner may direct that the sod be pegged, with pegs driven through the sod blocks into firm earth, at suitable intervals.
- F. Any pieces of sod which, after placing, show an appearance of extreme dryness shall be removed from the work.
- G. Where placement of new sod abuts existing sodded areas, new sod must be placed in such a manner as to produce an even transition to existing sodded areas.
- H. It shall be the responsibility of the Contractor to bring the sod edge in a neat, clean manner to the edge of all paving and shrub areas.

PART IV MAINTENANCE, ESTABLISHMENT AND WARRANTY PERIODS

4.01 MAINTENANCE AND ESTABLISHMENT PERIOD

- A. The Maintenance Period shall begin immediately after each plant is planted, and the Contractor shall continuously maintain all areas involved in this contract during the progress of the work.
- B. The Establishment Period shall begin on the first day after all planting and installation of all landscape elements is completed and initially accepted. The Contractor shall continuously maintain all areas from initial acceptance until final acceptance by the Owner. The Establishment Period shall continue for not less than ninety (90) continuous calendar days. Hurricane cut Sabal Palms shall have an Establishment Period of not less than one hundred and eighty (180) continuous calendar days. The Establishment Period will end at the time the project is substantially complete. An inspection shall be made by the Owner or Landscape Architect to accept the completed work and issue a determination of substantial completion. Inspections may be performed on all or partially completed phased work under the Contract, as directed by the Owner.
- C. Maintenance of new plantings shall consist of, but not necessarily be limited to, pruning, weeding, watering, mulching, and pest control. Pruning, weeding or replacing guys and stakes, reseeding plants to proper grades or upright positions, furnishing and applying sprays as necessary to combat insects and disease, litter control, rolling, fertilizing and replanting.
- D. Planting areas and plants shall be protected at all times against damage of any kind for the duration of the maintenance and establishment periods. If any plants are injured or damaged, they shall be treated or replaced as directed by the Owner. Landscape Architect at no additional cost. The Contractor is responsible for the vandalism or theft during the maintenance and establishment period unless this responsibility is assumed in writing by another party.
- E. Restrict foot and vehicular traffic from all lawn and planting areas after seeding and planting operations. Erect signs and barriers if required and remove when lawn and plantings are well established and ready for use.
- F. The Contractor shall be responsible for maintaining adequate protection of the site. Areas damaged by the Landscape Contractor's men or equipment, or the men or equipment of his Subcontractor's, shall be repaired at the Landscape Contractor's expense.
- G. The Contractor is responsible for keeping all plant materials adequately watered after installation even if the irrigation system is not operational. Plants shall receive a thorough watering immediately after planting. Afterwards, plants shall be watered during the maintenance and establishment periods per the requirements set forth in "Water Requirements for Newly Planted Grass, Ground Covers, Shrubs and Trees in Florida", distributed by South Florida Water Management District. In those areas where a permanent irrigation system is to be provided, the Contractor is responsible for implementing the Watering Program identified in the Landscape Plans.
- H. The Landscape Contractor is responsible for keeping all plant materials adequately fertilized throughout the Maintenance and Establishment Periods. Fertilizer shall be applied at a rate to keep plant materials healthy. All fertilizer shall be done under the direction of a licensed fertilizer operator.
- I. The Landscape Contractor shall control disease and pest infestations in the planting area. Upon approval, the Contractor shall implement the control measures, exercising extreme caution in using hazardous materials and taking all necessary steps to protect others on and near the job site. All disease and pest control shall be done under the direction of a licensed pest control operator.
- J. Herbicide Weed Control: All landscape areas shall be free of nut grass, torpedo grass, and other noxious weeds until final acceptance of work.

- 1. "Round-up" shall be applied to all planting areas as needed and determined on-site by the Owner or weed control. Apply per manufacturers specifications.
- 2. "Ronstar" pre-emergent or OWNER - approved equal, shall be applied 2 weeks before planting. Apply per manufacturers specifications.
- 3. Apply "Fusilade" in all areas where torpedo grass has emerged. Apply per manufacturers specifications.
- 4. Apply "Basagran" or "Marage" in all areas where nutgrass has emerged. Apply per manufacturers specifications.

- K. Mowing of turf will commence ten (10) days after installation. The height of cut will be 3". After the first cut, the Contractor shall adjust the frequency of mowing so that at each operation no more than 1/3 of the grass blade is removed per cutting.
- L. If the Contractor is to be responsible for watering, the Contractor shall water the gaps in the sod at any time during the maintenance or establishment periods, contractor to provide clean sand to fill all low spots and gaps to level the lawn surface. Roll the lawn immediately afterwards with a 1,000 lb. roller after thoroughly irrigating lawn. If required, level the lawn again, using the same procedure until a uniform level lawn surface is provided. Between the 15th and 20th day of the establishment period, the Contractor shall re-sod all spots or areas within the lawn where normal turf growth is not evident. Turf must be well established and free of bare spots and weeds to the satisfaction of the OWNER or Landscape Architect prior to final acceptance.
- M. Application of fertilizer to be done between the fortieth (40) and fiftieth (50) day of the establishment period. Landscape Architect or Owner are to be notified a minimum of forty eight (48) hours in advance.
- N. Inproper maintenance or poor condition of any planting at the time of the termination of the scheduled Establishment Period may cause postponement of the final acceptance of the contract. Any material found to be dead, missing, or in poor condition during the establishment period, shall be replaced immediately. Maintenance shall be continued by the Contractor until the work is acceptable.
- O. Inspection and Final Acceptance:
 - 1. In all cases the Landscape Architect will perform an initial and final inspection at the beginning and end of the Establishment Period, respectively. It is the responsibility of the Contractor to notify the Owner or Landscape Architect of the beginning and ending of this period and to submit a written request for an inspection ten (10) days in advance.
 - 2. Following inspection(s), Landscape Architect will prepare a listing of outstanding items to be addressed prior to final acceptance. Final acceptance will be given once the outstanding items are completed, and the work performed to the satisfaction of the Landscape Architect and the OWNER.
- P