

## 329 Landscape Plans

### 329.1 General

Landscape refers to any vegetation, mulches, and irrigation systems. Designs may include hardscape features (e.g., street furniture, specialty paving, tree grates, walls, planters, fountains, fences, landscape lighting). Hardscape-only projects are not landscape projects. Landscape may be constructed as a standalone project or as a component of a roadway project.

The Legislature has requested that the Department commit program dollars to purchase plant materials from Florida commercial nursery stock. In order for the Department to capture that information, it is critical that all small and large plant pay items be placed in AASHTOWare Project Preconstruction™ (formerly TRNS\*PORT) Category 0600.

Landscape Plans can be prepared as either a component set of plans, or as a standalone Landscape plans set. Landscape Plans are assembled as a separate plan set complete with a Key Sheet, Tabulation of Quantities, and all other required landscape sheets. When prepared as a component set of plans, number the sheets with the prefix “LD”; e.g., LD-1, LD-2, LD-3. When prepared as a Standalone Landscape plan set, the prefix is not needed.

#### Modification for Non-Conventional Projects:

Delete the second sentence from the above paragraph and replace with the following:  
Component plans are assembled as a separate plans set complete with a Key Sheet and all other required landscape sheets.

Projects with minor landscaping may show these features on landscape plan sheets in the roadway plans set (lead component), or detailed on Roadway Plans sheets. Do not use the prefix letter “LD” when including landscaping sheets in the roadway plan set. See **FDM 307.1** for placing Tabulation of Quantities sheet in the Roadway plan set.

## 329.2 Key Sheet

The key sheet is the first sheet in the component plans set, or a Standalone Landscape plan set. When used as a component set of plans, the location map and Contract Plans Components list are not required on this sheet. Show the index of Landscape Plans on the left side of the sheet. Assemble the Landscape Plans in the following order:

- (1) Key Sheet
- (2) Signature Sheet (if required)
- (3) Project Layout
- (4) General Notes
- (5) Landscape Plan
- (6) Landscape Details
- (7) Irrigation Plan (if applicable)
- (8) Irrigation Details (if applicable)
- (9) Tabulation of Quantities and Plant Schedule

Modification for Non-Conventional Projects:
Delete Item (9) from the above list.

See **FDM 302** for other Key Sheet requirements and **Exhibit 302-3** as an example Component Key Sheet.

For Standalone Landscape plan sets, refer to **Exhibit 302-1** for an example of a lead Key Sheet with no revisions and **Exhibit 302-2** for a lead Key Sheet with Revisions. Assemble Standalone Landscape plans in the following order:

- (1) Key Sheet
- (2) Signature Sheet
- (3) Summary of Pay Items
- (4) General Notes
- (5) Project Layout
- (6) Selective Clearing and Grubbing Plan (if applicable)
- (7) Tree Disposition Plan (if applicable)

- (8) Landscape Plan
- (9) Landscape Details
- (10) Irrigation Plan
- (11) Irrigation Details
- (12) Temporary Traffic Control Plan (if applicable)
- (13) Stormwater Pollution Prevention Plan (if applicable)
- (14) Tabulation of Quantities and Plant Schedule
- (15) Irrigation Tabulation of Quantities
- (16) Summary of Quantities

Modification for Non-Conventional Projects:

Delete Items (3), (14), (15), & (16) from the above list.

### 329.3 Signature Sheet

See **FDM 303** for Signature Sheet requirements.

### 329.4 Tabulation of Quantities and Plant Schedule

The Tabulation of Quantities and Plant Schedule sheet tabulates the planting materials, landscape soil work, and other materials required for the installation of plant materials. Prepare this sheet using the standard tabulation of quantities sheet as illustrated in **Exhibit 329-1**. If irrigation elements are included, a separate Tabulation of Quantities is required. If hardscape elements are included, use the appropriate summary boxes for each element, and include on Summary of Quantities sheets.

Standalone Landscape plan sets may require additional summary tables, depending on the scope of the project; e.g., mowing, litter pickup, outdoor advertising.

On contracts with multiple Financial Project ID numbers or Federal-Aid and non-Federal-Aid quantities, provisions must be made to tabulate and summarize their respective quantities.

Pay Size categorized as small plants include:

- All ground covers
- Shrubs, trees and cycads less than 7 gallons
- Clustering palms, up to 6-foot height

Pay Size categorized as large plants include:

- Shrubs, trees and cycads, 7 gallons or greater
- Single-trunk palms
- Clustering palms, 6-foot height or greater

Modification for Non-Conventional Projects:

Delete **FDM 329.4**.

### **329.5 General Notes**

Show general notes on a separate General Notes sheet. See **FDM 311** for instructions in creating a General Notes sheet. General Notes can be used to describe site-specific requirements, such as:

- Watering schedule
- Fertilizer mix
- Fertilizer schedule
- Backfill or soil amendments.

### **329.6 Landscape Plan Sheets**

Prepare Landscape Plan sheets on a standard plan format. The scale should be such that all details are clear and legible. See the requirements of **FDM 312.1** as a guide. For simple projects, or narrow sections of a project, it may be possible to "stack" two plans on one sheet, one below the other. Stationing must progress from left to right and be stacked from top to bottom. Irrigation plan sheets may be prepared at a larger scale than the planting plan sheets. Clarity and legibility must be preserved in all cases.

Place a north arrow and scale at a point of maximum visibility on the sheet. If two plans are "stacked" on one sheet, include a north arrow and scale in each plan portion.

### 329.6.1 Required Information

The basic information required is as follows:

- (1) Project centerline
- (2) Edge of pavement (edge of traffic lanes)
- (3) Curbs
- (4) Drainage systems
- (5) Guardrail
- (6) R/W or limited access fence line
- (7) Sidewalks or other planned or existing structures
- (8) Lighting, signs and signal poles
- (9) Intersections and driveways which are noted in the plans
- (10) Existing and proposed overhead and underground utility locations
- (11) Clear Zone/Lateral offset (should be plotted or distances noted frequently on each plan sheet)
- (12) View zones for permitted outdoor advertising signs
- (13) Canopy limits
- (14) Existing vegetation (to remain or be removed)
- (15) Existing off-site features and conditions that affect or are affected by the project
- (16) Fence and gate locations
- (17) Setbacks from structural elements or drainage system
- (18) Limits of clear sight (see **FDM 212.11**)
- (19) Transit Facilities
- (20) Mowing Limits

Where necessary, required sheet elements may be “screened” to provide legibility for the landscape plans, so long as the required elements remain apparent.

Planting plan sheets must also provide at a minimum the plant symbols, plant quantities, and common and botanical names of each plant.

**Modification for Non-Conventional Projects:**

Delete the above paragraph and replace with the following:

Planting plan sheets must also provide at a minimum the plant symbols, common name and botanical name of each plant.

Include the following on the planting plan sheets:

- Hardscape and site amenities; e.g., street furniture, specialty paving, tree grates, walls, planters, fountains, fences, and lighting (excluding public utility street and area lighting).
- Location and depth to improve soil structure (a.k.a., soil scarification), amend existing soil, or replace existing soil with Landscape Soil
- Soil scarification and amendment requirements may be described on the General Notes sheet if they are simple. Detailed requirements (e.g., those that vary for specific areas) should be described separately for each amendment type. Each type of soil scarification, amendment, or replacement should be defined (e.g., Type 'A'), specified, and quantified on the Tabulation of Quantities Sheet.

Prepare irrigation plan sheets using the planting plan sheets (devoid of unnecessary text and labeling) and include information pertaining to the irrigation system. Information on the sheet must include the approximate location of spray heads and rotors, valves, mainlines, lateral lines, sleeves (noting the diameter sizes), controllers, water sources and points of connection, backflow preventers, and isolation valves.

The Details Sheet must include a legend clearly depicting the symbiology used in the irrigation plan sheets and an associative description for each entry. Additional information such as the nozzle and component schedule, irrigation zone, or lateral schedule can be included on these sheets.

### **329.7 Landscape Details Sheet**

This sheet may be used to show landscape details, hardscape details, and irrigation details, that are applicable to the project and not addressed in the [Standard Plans](#).

Details provided in **Standard Plans, Index 580-001**, are provided for root establishment purposes only. When trees or palms are above 30 feet in overall height, or within falling distance of a roadway, pedestrian or bicycle route, designer is to provide tree and/or palm bracing details and **Standard Plans, Index 580-001** does not apply. Designer is to

provide details when bracing is intended to be used for safety considerations. The following are examples of safety considerations:

- Tree or palm is within falling distance of a roadway, pedestrian, or bicycle route
- Tree or palm is over 30 feet in height
- Commonly exposed to higher wind speeds
- Non-standard soil properties exist
- Non- standard plant dimensions exist
- When rootball exceeds 4 feet in diameter and it is located on a 1:3 slope or steeper
- Tree bracing impedes the line of sight or clear sight triangles.

**LANDSCAPE TABULATION OF QUANTITIES AND PLANT SCHEDULE**

PAY ITEM NO.	SYM	DESCRIPTION (BOTANICAL NAME / COMMON NAME; SIZE; SPACING; DETAILS) (ENHANCEMENT TYPE; REMOVAL DEPTH; SOIL ADDED; AMENDMENT ADDED; SCARIFICATION DEPTH; UNIT)	MAX. MAINT. SIZE	REMARKS	UNIT	SHEET NUMBERS								TOTAL THIS SHEET		GRAND TOTAL	
						LD-25		LD-26		LD-27				PLAN	FINAL	PLAN	FINAL
						PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL				
0580 1 1		SMALL PLANTS			LS												
	DT	DIANELLA TASMANICA / BLUEBERRY FLAX LILY; #3 GAL; 1'x1.5', 2' OC	1.5'			433		287		180				900		4,339	
	FG	FICUS MICROCARPA / GREEN ISLAND FICUS; #3 GAL; 1.5'x1.5', 2' OC	2.5'			625		730		250				1,605		6,822	
	IV	ILEX VOMITORIA 'STOKES DWARF' / DWARF YAUPON HOLLY; #3 GAL; 1'x1', 2' OC	2.2'			275		225		320				820		3,108	
	LM	LIRIOPE MUSCARI / LIRIOPE; #1 GAL; 1'x1', 2' OC	1.5'			140		80		100				320		1,808	
	MS	MIMOSA STRIGILLOSA / SUNSHINE MIMOSA; 4"x8", 1' OC	NF/1'			40		80		40				160		1,320	
	PD	PODOCARPUS MACR. 'PRINGLES' OR 'META' / DWARF PODOCARPUS; #3 GAL; 1.5'x1.5', 2' OC	2'			205		160		140				505		3,220	
	SAV	SCHEFFLERA ARBORICOLA 'TRINETTE' / DWARF VARIEGATED SHEFFIERA; #3 GAL; 1.5'x1.5', 2.5' OC	3.5'			205		311		120				636		1,230	
0580 1 2		LARGE PLANTS			LS												
	BA	BULNESIA ARBOREA / VERAWOOD; 2.5" CAL; 12' OA x 6' SPREAD; FULL	40'/NF			8		2		6				16		180	
	BN	BISMARCKIA NOBILIS 'SILVER' / SILVER BISMARCK PALM; 8' CT; SINGLE; RP, FF	NF/30'			6		8		5				19		90	
	BRO	ALCANTAREA IMPERIALIS / IMPERIAL BROMELIAD; #7 GAL, 24"OA	NF/2.5'			9		9		3				21		161	
	CES	CONOCARPUS ERECTUS VAR. SERICEUS / SILVER BUTTONWOOD; 10' x 6'; MULTI, LIMB UP 3'	15'/NF			5		6		2				13		46	
	CLP	CRINUM AUGUSTUM 'QUEEN EMMA' / PURPLE CRINUM LILY; #15 GAL; 3' x 3'; FULL	NF/4.5'			12		14		11				37		266	
	CN	COCOS NUCIFERA 'GREEN MALAYAN' / MALAYAN COCONUT PALM; 10', 14' 18' CT; SEE PLAN, FF	NF/50'			9		2		7				18		48	
	DR	DELONIX REGIA / ROYAL POINCIANA; 5" CAL; 16' OA x 8' SPREAD	40'/NF			3		1		5				9		66	
	JAM	JATROPHA INTEGERRIMA / JATROPHA; 6' OA x 4' SPREAD; MULTI, LIMB UP 2'	12'/NF			17		12		8				37		283	
	LD	LIVISTONIA DECIPiens / RIBBON PALM; 12'-14' CT, SINGLE; MATCHED, DC, FF	NF/35'			10		10		22				42		420	
	PEA	PTYCHOSPERMA ELEGANS / SOLITAIRE PALM; MAX 4" CAL; 12' OR 17' CT, SINGLE; SEE PLAN, FF	NF/25'			2		0		4				6		28	
	PHC	PHOENIX CANARIENSIS / CANARY ISLAND DATE PALM; 13' CT; MATCHED, DC, FF	NF/40'			2		0		4				6		42	
	PHM	PHOENIX DACTYLIFERA 'MEDJOL' / MEDJOL DATE PALM; 13', 17', 21' CT; SEE PLAN, DC, FF	NF/50'			4		6		3				13		39	
	SP	SABAL PALMETTO / SABAL PALMETTO; 12', 16', 20', 24' CT; SEE PLAN, SLICK, REGEN	NF/50'			14		12		3				29		222	
	TR	THRINAX RADIATA / THATCH PALM; 8" OA; SINGLE; FF	NF/15'			2		2		5				9		66	
	VM3	VEITCHLA MONTGOMERYANA / MONTGOMERY PALM; MIN 14' CT (ALL STEMS), TRIPLE; FF	NF/40'			17		19		3				39		299	
		SOIL ENHANCEMENT															
	SA-A	TYPE 'A' AMENDMENT; REMOVE 6"; ADD 6" AMENDMENT; SCAR. 12"; CY				7.3		6.3		28.6				42.2		125.6	
	SA-B	TYPE 'B' AMENDMENT; REMOVE 6"; ADD 6" AMENDMENT; SCAR. 18"; CY				45.1		12.9		22.2				80.2		614.9	
	SSI-1	SOIL STRUCTURE IMPROVEMENT; SCAR. 24"; SY				37.7		36.2		23.9				97.8		749.8	
	LSR-1	SOIL REPLACEMENT; REMOVE 18"; ADD 18" SOIL; SCAR. 12"; CY				221.4		408.3		380.6				1,010.3		4,565.3	

**Landscape Soil Key:**

- Type 'A' Amendment - Remove existing material and scarify to the depths specified. Backfill with clean sand and mix with existing scarified material to create amended, decompacted soil.
- Type 'B' Amendment - Remove existing material and scarify to the depths specified. Backfill with organic matter and mix with existing scarified material to create amended, decompacted soil. Organic matter must be fully decomposed and stable with regard to oxygen consumption and carbon dioxide generation. Soluble salt content shall be less than 6.0 MMHOS/CM, and the carbon/nitrogen ratio shall be less than 25:1. Submit source and product analysis for approval by the Department prior to purchase.
- Soil Structure Improvement - Mechanically loosen and mix existing soils to a depth of 24 inches. Ensure consistent mixing throughout all areas to provide a uniform soil structure.
- Landscape Soil Replacement - Remove existing material and scarify to the depths specified. Backfill with Landscape Soil.

**Landscape Plants Abbreviation Key:**

- CAL - Caliper
- CT - Clear Trunk
- DC - Diamond Cut Trunk
- FF - Florida Fancy Grade
- GAL - Gallon Size
- MULTI - Multiple Stems
- NF - Natural Form
- OA - Overall Height
- OC - On Center
- REGEN - Regenerated Roots
- RP - Root Pruned (Min 60 Days)

**Exhibit 329-1**  
Date: 1/1/19

<p align="center">REVISIONS</p> <table border="1"> <thead> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				DATE	DESCRIPTION	DATE	DESCRIPTION					ARTURITO T. GOMEZ, L.A. L.A. NO.: 99999 LAND DESIGN, LLC. 345 IVY LANE ORLANDO, FL 32801	<p align="center">STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION</p> <table border="1"> <thead> <tr> <th>ROAD NO.</th> <th>COUNTY</th> <th>FINANCIAL PROJECT ID</th> </tr> </thead> <tbody> <tr> <td>SR 22</td> <td>BAY</td> <td>123456-1-52-01</td> </tr> </tbody> </table>	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	SR 22	BAY	123456-1-52-01	<p align="center"><b>TABULATION OF QUANTITIES AND PLANT SCHEDULE</b></p>	SHEET NO.  
DATE	DESCRIPTION	DATE	DESCRIPTION																		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID																			
SR 22	BAY	123456-1-52-01																			

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.011, F.A.C.