State of Florida Department of Transportation

PAVEMENT EVALUATION AND CONDITION DATA SHEET

Project No.: 428947-1	**Cored By:** MS/JW (PSI)	**Date:** 11/2/2023	**Page No.:** MASTER
County: Volusia	**Highway Sect. No:** 79100	**From:** Breakaway Trail	**To:** E. of Williamson Blvd.
Road No.: SR 40	**Begin MP:** 25.870	**End MP:** 26.710	**Length:** 0.840 miles

Core No.	MP	Distance from left edge of lane (ft.)	Lane	Wheel Path	Pavement Layer (in.)							Base		Crack				Pavt Cond.	Rut Depth (in.)	Cross Slope (%)	Comments	
					FC-5	FC-12.5	Type SP	Type S	Binder		Core Length (in.)	Type	Thick-ness (in.)	Depth (in.)	Type	Class	Extent					
1	25.907	6.0	R2		0.8		2.4	0.7			3.9	LR	12.8	-	-	-	-	F			Surface Blisters / Ripples	
2	26.054	7.0	RRTL		1.2		1.7				2.9	LR	10.3	-	-	-	-	F			EB Right Turn Lane to RaceTrac Gas	
3	26.061	9.0	R2	X	0.7		2.6	0.7			4.0	LR	13.0	-	-	-	-	F				Missed Coring On Cracks
4	26.305	10.0	R3	X		1.5	1.0	2.5			16.1	ABC	11.1	-	-	-	-	F			Aux Lane - Delamination at 5.2 inches from the top	
5	26.453	8.0	RRTL	X		1.0	--	3.2			4.2	LR	11.0	B	ST	III	S	P			EB Right Turn Lane to Williamson Blvd (R3 lane drops off). Wire encountered at 2 inches from the top.	
6	26.561	9.0	R2	X		1.5	1.7	0.6			3.8	LR	12.3	-	-	-	-	F				
7	26.605	8.0	L2	X		1.5	1.7	1.3			4.5	LR	12.0	-	-	-	-	F				Missed Coring On Cracks
8	26.454	7.0	L2	X		1.8	1.2	1.4			4.4	LR	11.7	1.5	SL	II	L	P				
9	26.388	10.0	LRTL	X		1.6	1.7	2.5			16.0	ABC	10.2	-	-	-	-	F			WB Right Turn Lane to I-95 NB On-Ramp	
10	26.254	8.5	L2	X	1.1		2.4	1.0			16.1	ABC	11.6	-	-	-	-	F			Core Broke/Separated at 8.0" Down From Top	
11	26.131	10.0	L2	X	1.3		2.2	0.8			4.3	LR	12.5	-	-	-	-	F				
12	26.058	9.0	LRTL		0.7		2.0	1.8			8.5	ABC	4.0	-	-	-	-	P			WB Right Turn Lane to Booth Road Light Raveling	
13	25.914	6.5	L2		1.3		2.2	0.5			4.0	LR	12.6	-	-	-	-	F				Missed Coring On Cracks
14	25.894	5.0	R1		0.9		2.5	0.4			3.8	LR	12.8	-	-	-	-	F				
15	25.965	3.0	RLTL	X	0.8		1.5	1.2			3.5	LR	12.0	-	-	-	-	F			EB Left Turn Lane to Booth Road	
16	26.190	2.0	R1	X	1.0		2.5	1.3	1.7		6.5	LR	12.5	-	-	-	-	F				
17	26.309	3.0	RLTL	X		1.5	9.5	0.7			11.7	LR	6.5	-	-	-	-	F			EB Left Turn Lane to I-95 NB On-Ramp	
18	26.445	3.5	RLTL	X		1.5	- -	2.7			4.2	LR	12.5	-	-	-	-	F			EB Left Turn Lane to Walmart SuperCenter	
19	26.537	5.5	R1			1.5	1.6	0.9			4.0	LR	13.0	-	-	-	-	F			Surface Blisters / Ripples	
20	26.635	1.5	L1	X		1.5	1.5	0.8			3.8	LR	13.3	-	-	-	-	F				
21	26.435	2.0	L1	X		1.7	- -	2.5			4.2	LR	13.0	-	-	-	-	F				
22	26.245	2.0	L1	X	1.4		2.3	2.3			6.0	LR	1.3	-	-	-	-	F			Raveling and severe gouging	
23	26.180	4.0	LLTL		1.7		1.5		1.1		4.3	LR	13.2	-	-	-	-	F			WB Left Turn Lane to Interchange Blvd (RaceTrac/McDonalds)	
24	25.946	1.5	L1	X	0.7		2.7	0.6			4.0	LR	13.1	-	-	-	-	F			Surface Blisters / Ripples	

Remarks: Crack Depth of "B" indicates full depth crack to the base. EOP = Edge of Pavement

Crack Extent: L= Light; M= Moderate; S= Severe Pavement Condition: G= Good; F= Fair; P= Poor

Crack Types: A= Alligator; Bl= Block; Br= Branch; SL= Single Longitudinal; ST= Single Transverse; R= Reflective; J= Joint; OGFC= Open-Graded FC Stress Crack

Base Types: LR= Limerock; COQ= Coquina; SC= Soil Cement; ABC= Asphalt Base; SAHM= Sand Asphalt Hot Mix; SBRM= Sand Bituminous Road Mix; NB= No Base

Instructions for filling the PECD sheet:

Core #	This is the sequential order of how the cores were collected in the field. If the core shows a "split" of two different pavement thickness, the core number is then labled as "A" & "B". For example, core #5 was taken on longitunal crack and it happens to be the construction joint of a widening pavement with ABC. Core #5 is entered in PECD as #5A for half core on Limerock Base and #5B for half core on ABC base. For submittal of PECD in reports, a maximum of 16 cores (rows) will be permitted as a single sheet. During our review, we typically will re-aranged the cores into groups such as mainline lanes, paved shoulders, turn lanes, and median cross-overs.
MP	This is the entry of the milepost (MP in 3 decimal places) of where the core was taken. Make sure the DMI is calibrated and is initiated at the correct starting point otherwise all other core locations will have compounding error and the last core at the end of a 4-mile project will not be accurate. It is always a good idea to do "quality" check of DMI with known MP of side streets (from SLD and from aerial concept plans -if avail) to ensure the DMI is functioning properly.
Distance from left edge of lane	This is the entry of measured offset of where the core was taken in the lane. This is reported to the nearest 0.5 of a foot. The "left edge" is always from the left edge of lane IN DIRECTION OF TRAFFIC. This is kept consistent for all lane features such as travel lane, paved shoulder, turn lane.
Lane	The is the entry of a lane notation to identify which lane or pavement feature that the core was taken. Keep in mind, the right side are the lane(s) in direction of increasing MP. This is typically the northbound or eastbound. The opposite is for the left side with milepost decreasing. There are some road sections that have unconventional milepost system.
Wheelpath	This is the entry of a "X" if the core was taken in the wheelpaths. On a 12' wide lane, this would be for the following offsets: 2.0'. 2.5', 3.0', 3.5' for left wheelpath and 8.5', 9.0', 9.5', 10.0' for the right wheelpath.
Pavement Layers	This is a 6-column data entry for asphalt layers identification. The layers are noted from left to right as seen from top to bottom of core. Some projects have multiple types of friction course. Since it can be difficult to identify without the benefit of extraction/gradation of the layers, some layers like S-III, S-II and S-I is simply "combined" and labeled as Type S. As we progress more into the future, more of our roadways will be resurfaced with SuperPave (Type SP) structural courses. It will take some effort/judgement to identify a "new" layer of Type SP on "old" layer of Type S. If the cores have more layers that can be fit in this 6-column layout, contact D5 Materials for further discussion.
Core Length	This is the overall thickness of the asphalt core. For cores taken on limerock or coquina base, this equates to the summation of all the asphalt layers. For cores taken on ABC base, it is the summation of all asphalt layers PLUS the ABC thickness.
Base Type	This is the identification of the base material type. This field is always entered even if the base was not augured for a depth check. The identification can be done by viewing the core hole after the asphalt core has been extracted and also by looking at the bottom of the asphalt core as well.
Base Thickness	This is the entry of a base thickness value measured (to nearest tenth of inch) with a ruler. Typically, this is done on every other core on the mainline travel lanes and at EVERY shoulder and turn lane cores. The base depth checks is done by hand or drill auguring the base to the stabilization subgrade material, the thickness is measured from the bottom of the base to the top of the pavement surface. The value is then re-calculated by subtracting the core thickness. By measuring to the top of the pavement, any issues of parallax while reading the ruler in the core hole is minimized/avoided.
Crack Depth	This is the entry of a crack depth measured (to nearest tenth of inch). The core is to be examined closely and measured accurately as this becomes critical when determining milling depths for rehabilitating the pavement. If the crack extends full depth of asphalt core to the base, a letter "B" is used as this gives a visual effect when reviewing the PECD sheet. The more "B"s seen on the PECD illustrates that pavement is extensively cracked in the project limits.
Crack Type	This is the entry of a crack type code which is based on how the cracks develops (pattern-wise) on the pavement. The crack codes have been expanded to better note the various types of cracking encountered on the project. Of particular note, the OGFC crack is something that was frequently observed on interstates or high speed mult-lane rural highways. Often the cracks resembles as branch cracking in the wheel paths but when cored, the cracks only extends through just the friction course. This is probably an early stage branch cracking where the underlying structural course will eventually be cracked.
Crack Class	This is the entry of one of the three identification codes. The available class codes are: Ib; II; III. The crack classification based on width of the cracks. Class Ib cracks are classified as narrow "hairline" cracks with widths of 1/8" or less. Class II cracks are classified as cracks having crack widths greater than 1/8" and up to 1/4" widths. Class III cracks are classified as cracks having crack widths greater than 1/4".
Crack Extent	This is the entry of one of the three letter codes. The available codes are: L = Light; M = Moderate; and S = Severe. The crack extent of the pavement is based on visual observation in assessing the volume or density of the cracks that is occuring on the pavement. Light cracking is defined as small random occurence of cracks covering small areas. Moderate cracking is defined whereas cracking is occuring over a larger area and is semi-continous for some intermediate length. Severe cracking is defined as cracks that are occuring in much larger area and is usually continous for some significant length.
Pavement Condition	This is the entry of one of the three letter codes. The availabe codes are: G = Good; F = Fair; and P = Poor. Keep in mind this is a subjective view of the rater's observation of the pavement. Usually, pavements that have been resurfaced within 6 years and does not have significant cracking issues or ride issues (ripples, dips) are usually rated in Good or Good to Fair condition. If the pavement is older, and has more cracking distresses with some degradation in ride quality, it usually rated to be in Fair or Fair to Poor condition. If pavement exhibits significant/extreme amount of cracking and has very rough ride is classified to be in Poor condition.

Rut Depth	This is the entry of rut value measured (in tenth of inch) near location of the core. Both wheelpaths are checked & measured for rutting. It is preferred that a custom-made ruler or measuring device is made to accurately measure the rut from the bottom of the level (positioned transversely) to the lowest point of the rutted pavement surface. The deeper rutting value of the two wheelpaths is recorded.
Cross Slope	This is the entry of the cross slope value measured (in tenth of %) near location of the core. A calibrated 6' long smart level is required. Each half of the lane is measured. IF both values are within 0.5%, the value is averaged and reported as single value. HOWEVER, if difference between both values is greater than 0.5%, report both values. Sometimes it is easier to show both values regardless. The first value is always the left half the lane (in direction of traffic) and the second value is the right half of the lane (in direction of traffic). IMPORTANT TO REMEMBER: Positive slope is outward draining to the outside. Negative slope is inward draining to median (mulitlane) or to centerline (2-lane).
Comments	This entry is for any information that is observed/measured during coring operations which becomes critical for overall assessment of the pavement's condition. Additional details/description is provided such as: ripples, shoving, asphalt drop-off in the gutter, delamination, raveling of friction course, description of turn lane (when cored), separation of core (x.x" down from top), patching, bleeding/flushing, polished aggregate on pavement surface, extensive wear of FC, and any other unique observation worth noting.