450 STORMWATER MANAGEMENT REGULATIONS

a. SMR 1	
1. SZ	SZ1 = <u>60</u>
2. DS	DS1 = <u>36</u>
3. LID	LID1 =0
4. PUB	PUB1 =0
SMR = the total of lines 1 through 4:	SMR1 = <u>96</u>
As a function boot that is not a later that the OMD some latitudes a OMD.	- OMD 4 800
Area of watershed that is regulated by the SMR regulations, aSMR	aSMR1 = <u>800</u>
Area of Watershed, aW	aW = <u>999</u> rSMR1 = · ⁸
Impact Adjustment ratio, rSMR	
Number of å læj æ ^ Å ^ &[¦å• sampled ####################################	
Number of 妿j æ*^Á^&[¦å• Áhat passed the office review A	
Verified ratio, vSMR	vSMR1 = <u>1</u>
cSMR1 = SMR1 x vSMR1 x rSMR1	cSMR1 = <u>76.80</u>
b. WMP 1	
1. The four prerequisites are met (90 points):	=
2. The plan is also based on the 100-year storm (30 points):	=
3. The community also manages peaks and volumes (55 points):	=0
4. The community uses the 5-day event (35 points):	=
5. Identification of wetlands, etc. (30 points):	=
6. Protection of natural channels (25 points):	=
7. Requiring "soft" techniques for bank stabilization (25 points):	=
8. QÁx@?Á&[{{`}}ãĉÁ@æ?ÁxxÁåååææ?åÁ`}åā}*Á*[`¦&^(25poã)orDÄ₩₩₩₩	25
WMP = the total of lines 1 through 8:	WMP1 = <u>175</u>
Area covered by the watershed master plan, aWMP	aWMP1 = <u>800</u>
Area of Watershed, aW	aW = <u>999</u>
Impact Adjustment ratio, rWMP	rWMP1 = <u>.8</u>
Verified ratio, vWMP = vSMR	vWMP1 = <u>1</u>
cWMP1 = WMP1 x vWMP1 x rWMP1	cWMP1 = <u>140.00</u>

450 STORMWATER MANAGEMENT REGULATIONS

Comments:

See attached.

dkcarlton & associates

MEMORANDUM

TO:	Sue Hopfensperger, CFM
CC:	PC Reviewers, Amanda Gowans CFM, Sherry Harper CFM
FROM:	Dave Carlton, PE, CFM
DATE:	July 20, 2016
SUBJECT:	450 Credit for Palm Coast, FL 120684

I have reviewed the documentation provided for the community. I verify the following credit.

SZ = 60	Section 9.01.02 B requires compliance by all nonresidential and residential site plan projects. However, stormwater requirements for single family residences do not address control of increased runoff. Section 9.02.06 requires all site plans dedicating right of way for a road to comply. Score for one acre developments.
DS = 36	Section 9.04.02.B requires the post-development peak rate of discharge to not exceed the pre-development peak rate of discharge for the 25-year event as required by SJWMD.
LID = 0	Not found
PUB = 0	Reference 5 requires inspections every two years, not every year as required for credit.
SMR = 96	
rSMR = .8 SMR = 76.8	Estimated. SJWMD now has standards that do not qualify.
WMP(1) = 90	The plan submitted meets the minimum standards. It was created in the 1970's and has been followed ever since.
WMP(1) = 90 WMP(2) = 30	
	and has been followed ever since. 100 year standard. All channels and regional detention designed for full build- out 100-year event.
WMP(2) = 30	and has been followed ever since. 100 year standard. All channels and regional detention designed for full build-
WMP(2) = 30 WMP(3) = 0	and has been followed ever since. 100 year standard. All channels and regional detention designed for full build- out 100-year event. Manages volume of runoff.
WMP(2) = 30 WMP(3) = 0 WMP(4) = 0	and has been followed ever since. 100 year standard. All channels and regional detention designed for full build- out 100-year event. Manages volume of runoff. Manages the 5-day event.
WMP(2) = 30 WMP(3) = 0 WMP(4) = 0 WMP(5) = 30	and has been followed ever since. 100 year standard. All channels and regional detention designed for full build- out 100-year event. Manages volume of runoff. Manages the 5-day event. Identifies wetlands.
WMP(2) = 30 WMP(3) = 0 WMP(4) = 0 WMP(5) = 30 WMP(6) = 0	and has been followed ever since. 100 year standard. All channels and regional detention designed for full build- out 100-year event. Manages volume of runoff. Manages the 5-day event. Identifies wetlands. Prohibits alteration of existing channels.
WMP(2) = 30 WMP(3) = 0 WMP(4) = 0 WMP(5) = 30 WMP(6) = 0 WMP(7) = 0 WMP(8) = 25	and has been followed ever since. 100 year standard. All channels and regional detention designed for full build- out 100-year event. Manages volume of runoff. Manages the 5-day event. Identifies wetlands. Prohibits alteration of existing channels. Requires soft bank treatments.
WMP(2) = 30 WMP(3) = 0 WMP(4) = 0 WMP(5) = 30 WMP(6) = 0 WMP(7) = 0	 and has been followed ever since. 100 year standard. All channels and regional detention designed for full build- out 100-year event. Manages volume of runoff. Manages the 5-day event. Identifies wetlands. Prohibits alteration of existing channels. Requires soft bank treatments. Dedicated funding source – Created Stormwater Utility to maintain and improve

cWMP = 140

References:

- 1) City of Palm Coast Technical Manual, 2008, Section V
- 2) Chapter 9 Engineering Design and Utilities
- 3) Chapter 24 including the Stormwater Utility Ordinance

- 4) Portions of the Stormwater Facilities Plan
- 5) Environmental Resource Permitting/MSSW/Stormwater Special Conditions.
- 6) Original Comprehensive Land Use Plan

Drainage Reports:

- 1) ICI Parcels 2014 6.92 acres controls the 25-year event.
- 2) Christ the King -a 5.16 acre site reduces the 25-year event.
- 3) Convenience Store 1052 a minor redevelopment on a 1.03 acre site with no change in CN so it is assumed there is no change in the runoff.
- 4) Dunkin Donuts a 1-acre redevelopment that reduces the impervious surface provides only for retention of the water quality volume.
- 5) Grand Landings Phase 2 a modification to an existing SJWMD permit to add 11 lots showing that the existing detention pond can meet the 25-year peak control requirement with minor modifications.