Section 5.13 PLAN SUMMARY BOXES/ESTIMATED QUANTITIES REPORT

5.13.1 Purpose

This chapter provides instructions for the Department's Construction personnel in charge of compiling and documenting the information necessary to substantiate the final pay quantities as it relates to the *Plan Summary Boxes* and *Estimated Quantities Report* (*EQR*), as well as *Form 700-050-10*, *Pay Item Summary and Certification*.

5.13.2 Authority

Sections 20.23(3) (a) and 334.048 (3), Florida Statutes (F.S.)

5.13.3 References

Sections 337.11(10), 337.145(1) (2) and 334.044(30), F.S.

FDOT Design Manual

Review & Administration Manual

Computer Aided Design and Drafting (CADD) Manual

Structures Manual

Basis of Estimates (BOE) Manual

5.13.4 General Information

The **Plan Summary Boxes** were created to replace the Computation Book and are located on the Summary of Quantity Sheets in the **Final As-Built Plans**. For Design requirements regarding the **Plan Summary Boxes**, please see the **FDOT Design Manual (FDM) Chapter 307** and **CADD Manual**, **Chapter 8**.

The *Estimated Quantities Report* was created to replace *Plan Summary Boxes* for NexGen Plans development. This is a standalone report that provides pay item information previously found in the *Plan Summary Boxes* and on plan sheets. For Design requirements regarding the *EQR*, please see the *FDM Chapter 902* and *CADD Manual Chapter 8*.

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A list of all the **Plan Summary Boxes**, **EQR tables**, and their descriptions is available in the **Basis of Estimates** (**BOE**) **Manual**, **Chapter 8**. Design requirements for bridge projects can be found in the **Structures Manual**. Also see the **FDOT Design Manual** for further requirements.

5.13.5 Resident Office (RO) Responsibilities

The Resident Office will track quantities each month and reconcile quantities in AASHTOware Project Construction (PrC) within 30 days of pay item closeout. Document all changes in quantities and enter backup documentation into EDMS per *CPAM 5.14* and *CPAM 5.15*. Ensure supporting documentation for quantities is available once payment is made per *CPAM 2.2*.

(A) Quantity Verification

Spot check original quantities. If a dispute arises before or during the construction of a project involving quantities, address and correct the quantities in the following manner:

- (1) Errors of Minor Nature:
 - (a) Example: If the EOR reported 100 LF of curb and gutter rather than the actual quantity of 1,000 LF.
 - (b) In this case, a simple correction will suffice.
- (2) Errors of Major Nature:
 - (a) Example: If the EOR omitted the southwest quadrant of an intersection.
 - (b) Send a written request asking the EOR to submit detailed documentation or verification of the concern for the quantity in question, per the **BOE Manual, Chapter 8**. The EOR is required to submit the supporting documentation within five (5) business days of the request.

(B) Quantity Totals Precision and Rounding

A standard method of calculation has been established for all estimating functions to be consistent. When calculating final quantities, use the precision for each unit of measure and standard rounding rules identified in the **BOE Chapter 2.2**.

Use all decimals when calculations are generated automatically from a computer application, then use common rules to round to the appropriate precision for final payment. Manual calculations should be performed using one additional significant figure, then use common rules to round to the appropriate precision for final payment.

(C) Plan Summary Boxes

The Resident Office has the following responsibilities regarding *Plan Summary Boxes*:

- (1) Ensure all revised *Plan Summary Boxes* are included in the *Final As-Built Plans* per *CPAM 5.12.*
- deletions, and changes to reflect the actual conditions of the project within 30 days of pay item closeout per **CPAM 5.12.8**. Place a red check mark in the final quantities column when there are no changes to the contract quantity. Enter the final quantity when the contract quantity differs from the final quantity.
- (3) Use red font color for any markups.
- (4) Reference all backup documentation by EDMS number in the Remarks column.
- (5) Use the Excel spreadsheets included in the *CADD_[FPID].zip* or *BIM [FPID].zip file*, in the *Calculations* directory (see Figure 1) to add a new *Plan Summary Box* to the *Final As-Built Plans*. Refer to the CADD Manual. See <u>Attachment 5.13-1</u>.

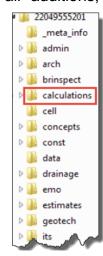


Figure 1 -CADD_[FPID].zip

(D) EQR

The Resident Office has the following responsibilities regarding the **EQR**:

(1) Ensure the original EQR and all revisions are uploaded into EDMS.

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(a) It is not required to update the EQR to create a "Final" Estimated Quantities Report.

- (b) The Responsible Engineer is not required to sign and/or seal the EQR.
- (c) An EQR Excel file is an optional tool for the RO to track all changes. When used, merge revised EQRs and add field changes to the spreadsheets. The EQR Excel file can be found within the *CADD_[FPID].zip* or *BIM [FPID].zip file.* See <u>Attachment 5.13-2</u>. Enter the updated EQR Excel file(s) in EDMS and reference when used.
- (2) Reference all back up documentation by EDMS number on *Form 700-050-10, Pay Item Summary and Certification Sheet*. See *CPAM 5.13.7*.

5.13.6 Form 700-050-10, Pay Item Summary and Certification

(A) Resident Office Responsibility

Generate *Form 700-050-10, Pay Item Summary and Certification* at the end of the project to incorporate all the necessary data, such as pay items, quantities, adjustments, Supplemental Agreements (SAs), and Work Orders (WOs). Submit this document with the *Final Estimates Documentation*. The steps below explain how to locate this form:

- Access the State Construction Office Construction application
- Login
- Select Reports
- Select Central Office (Statewide Reports)
- Select the Estimates tab
- Select Pay Item Summary and Certification Report

To create the report, enter the contract number, select the desired output format (i.e., PDF or Excel) and select *Get. Form 700-050-10, Pay Item Summary and Certification* will be generated by obtaining data from PrC. Ensure all information is correct and reference all appropriate backup documentation in the *EDMS Doc/Page* # column.

The Final Estimates Level 2 qualified staff (typically the Project Administrator (PA) and/or Contract Support Specialist), the PA, and the Resident Engineer will sign to certify the accuracy of the final quantities. **See Attachment 5.13-3**.

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(B) District Office Responsibility

The District Final Estimates Office staff will sign *Form 700-050-10*, *Pay Item Summary and Certification* and upload into EDMS after reviewing the *Final Estimates Documentation*. See <u>Attachment 5.13-3.</u>

5.13.7 Attachments

Attachment 5.13-1	Updated Plan Summary Box
Attachment 5.13-2	Estimated Quantities Report
Attachment 5.13-3 Form 700	-050-10, Pay Item Summary and Certification

ATTACHMENT 5.13-1 Updated Plan Summary Box

Any field changes should be noted in red. Reference backup documentation EDMS numbers in Construction Remarks columns.

^	SUMMARY OF EART	HWORK				
PAY ITEM NO.	PAY ITEM DESCRIPTION	P	Y F	DESIGN NOTES	CONSTRUCTION REMARKS	
0120 1	REGULAR EXCAVATION				See EDMS # 1165422, pages	
	SR 600	1668.00			and 18. See plan sheet 27A	
	TOTAL:	1668.00	1830.00		for details on SQ-6A, Plan	
					Quantity Analysis.	
0120 5	CHANNEL EXCAVATION					
	LAKE PARKER DRAINAGE	507.00	864.00		EDMS # 1169176 for Lake	
	SADDLE CREEK	1080.00	969.00		Parker Drainage, and EDMS	
	TOTAL:	1587.00	1833.00		1169178 for Saddle Creek.	
0120 6	EMBANKMENT				See EDMS # 1165422, pages	
	SR 600	3178.00			and 18. See plan sheets 27A	
	STA. 1231+99.10 to STA. 1232+48.38 (RT./LT.) BOX CULVERT	3364.00			and 27B for details on SQ-6B.	
	STA. 1233+01.38 to STA. 1233+42.44 (RT./LT.) BOX CULVERT	2699.00			Plan Quantity Analysis.	
	TOTAL:	9241.00	9381.00			

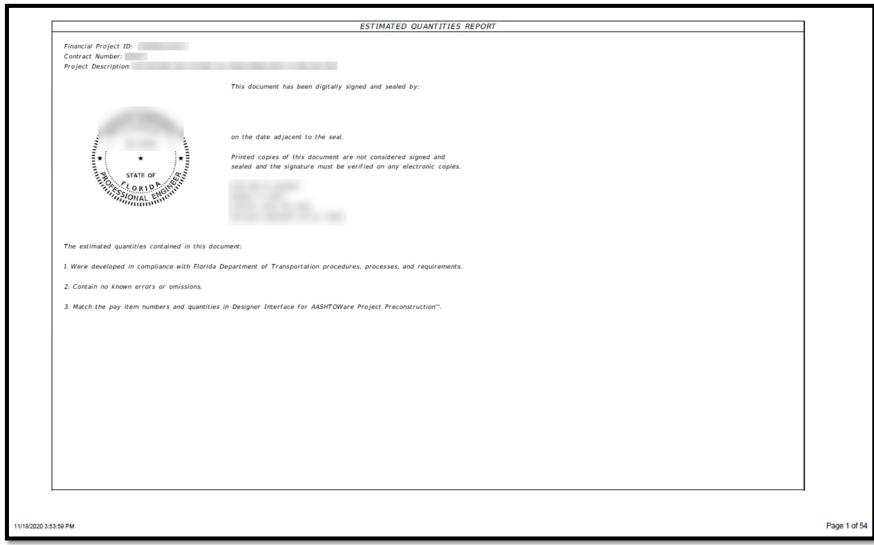
Use a red checkmark to indicate quantities are unchanged. Use an arrow to indicate a range of unchanged quantities.

	SUMMARY	OF	PERFORMANCE TURF-SOD								
	LOCATION	6,05		P			F		FIELD BOOK		
	CHAIN	SIDE	L	W	SY	L	W	SY	REFERENCE		
Λ	€ CONSTSR IO				119647.9						
<u> </u>	DEMPSEY MAYO RD.	_			801.3			-			
	CHURCH DRIVEWAY				158.1						
	TAYLOR RD.				205.3						
	HIGHLAND DR.				219.1						
	EDENFIELD RD.				1093.5						
	PEDRICK RD.				2146.5						
	CHAMPAGNE DR.				585.5						
	VINEYARD WAY				167.2						
	ARENDELL WAY				139.1						
	WINERY WAY				159.6						
	THORNTON RD.				428.8						
△					37768.7						
△	DRAINAGE STRUCTURES				550.0						
^					I			•			
Δ	SUB TOTAL:				164070.6						
	TEMP. EROSION CONTROL				12604.7			_	-		
	TEMP : ETIOSION CONTINUE				1.200 ///						
\wedge	TOTAL:				176676			_			

For lump sum projects, the tracking of pay item quantities is not required. However, it is recommended to insert a red check mark within the *Plan Summary Boxes* as the work is completed.

ATTACHMENT 5.13-2 Estimated Quantities Report

Example EQR Cover Sheet:



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Example EQR Table:

Pay Item		Units of	Quantity		Total Quantity		Location							Construction
Number	Pay Item Description	Measure	Р	F	Р	F	Alignment	Begin Station	End Station	Location Description	Side	Element ID	Design Notes	Construction Remarks
							BROADWAY							
			437.86				CL- BROADWAY	498+67.90	502+45.05		LT/RT	244540		
337 7 82	Asphalt Concrete Friction Course, Traffic C, FC-9.5, PG 76- 22	TN	48.71		707.19		SR972	207+21.07	210+40.49		RT	228781		
			20.39				SR972	207+21.07	209+37.04		RT	228418		
- 1			14.7				SR972	207+21.07	210+40.49		RT	228816		
			101.39				SR972	207+21.07	210+40.49		RT	228612		
			12.84				SR972	208+18.04	210+40.49		RT	228811		
			47.46				SR972	208+99.08	210+40.49		LT	228607		
			22.26				SR972	208+99.08	210+40.49		LT	228776		
			4.94				SR972		210+40.49		RT	228854		
			0.03				SR972		210+40.49		RT	228358		
			0.06				SR972	210+38.33	210+40.49		RT	228348		
			30.03				CL- BROADWAY	495+16.15	495+97.56		LT/RT	287738		
			35.68				CL- BROADWAY	495+97.55	498+67.90		RT	291808		
			27				CL- BROADWAY	495+97.55	498+67.90		LT	291803		
			74.16				CL- BROADWAY	495+97.55	498+67.90		RT	291633		
			57.37				CL- BROADWAY	495+97.55	498+67.90		LT	291628		
			210.17				CL- BROADWAY	498+67.90	502+45.05		LT/RT	244534		
350 30 13	Concrete Pavement For Roundabout Apron, 12 Depth	SY	245.54		245.54		CL- BROADWAY	499+63.98	500+47.29		RT	216161		
0526 1 1	Pavers, Architectural, Roadway	SY	245.54		245.54		CL- BROADWAY	499+63.98	500+47.29		RT	216161		

ATTACHMENT 5.13-3 Form 700-050-10, Pay Item Summary and Certification

Example EDMS References:

22 1	Item Description REMOVAL OF EXISTING CONCRETE CONCRETE SIDEWALK AND DRIVEWAYS, 4" THICK CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	EDMS Doc //Page# EDMS# 1471926 EDMS# 1472699	Unit Price \$44.0000 \$60.0000	\$35,904.00 \$47,580.00 \$7,020.00	Line Item Adjustment Amount \$.00 \$.00	\$47,580.0
10 4 10 22 1	REMOVAL OF EXISTING CONCRETE CONCRETE SIDEWALK AND DRIVEWAYS, 4" THICK CONCRETE SIDEWALK AND DRIVEWAYS, 6"	/Page # EDMS# 1471926	\$44.0000 \$60.0000	\$35,904.00 \$47,580.00	\$.00 \$.00	Paid Amount \$35,904.0 \$47,580.0
22 1	CONCRETE SIDEWALK AND DRIVEWAYS, 4" THICK CONCRETE SIDEWALK AND DRIVEWAYS, 6"		\$60.0000	\$47,580.00	\$.00	\$35,904.0 \$47,580.0 \$7,020.0
22 2	THICK CONCRETE SIDEWALK AND DRIVEWAYS, 6"	EDMS# 1472699				
			\$90.0000	\$7,020.00	\$.00	\$7,020.0
2 2 2 2						97,020.0
30 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	EDMS# 1471857	\$19.5000	\$11,524.50	\$.00	\$11,524.5
		EDMS# 1471858	\$18.6000	\$456,602.10	\$.00	\$456,602.1
30 2 14	CONDUIT, FURNISH & INSTALL, ABOVEGROUND	EDMS# 1471861	\$36.0000	\$2,304.00	\$.00	\$2,304.0
30 2 15	CONDUIT, FURNISH & INSTALL, BRIDGE MOUNT	FDMS# 1471859	\$23.0000	\$6,486.00	\$.00	\$6,486.0
30 2 65	CONDUIT, REMOVE, BRIDGE MOUNT	EDMS# 1471860	\$11.5000	\$1,840.00	\$.00	\$1,840.0
		EDMS# 1471927	\$2.4000	\$14,640.00	\$.00	\$14,640.0
30	0 2 14 0 2 15 0 2 65 3 1121	BORE 0 2 14 CONDUIT, FURNISH & INSTALL, ABOVEGROUND 0 2 15 CONDUIT, FURNISH & INSTALL, BRIDGE MOUNT 0 2 65 CONDUIT, REMOVE, BRIDGE MOUNT 3 1121 FIBER OPTIC CABLE, F&I, UNDERGROUND, 2-12 FIBERS	D 2 12 CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE EDMS# 1471858 D 2 14 CONDUIT, FURNISH & INSTALL, ABOVEGROUND EDMS# 1471861 D 2 15 CONDUIT, FURNISH & INSTALL, BRIDGE MOUNT FDMS# 1471859 D 2 65 CONDUIT, REMOVE, BRIDGE MOUNT EDMS# 1471860 B 1121 FIBER OPTIC CABLE, F&I, UNDERGROUND,2-12 FIBERS EDMS# 1471927	2 12 CONDUIT, FURNISH & INSTALL, DIRECTIONAL \$18.6000	D 2 12 CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE EDMS# 1471858 D 2 14 CONDUIT, FURNISH & INSTALL, ABOVEGROUND EDMS# 1471861 \$36,0000 \$2,304,00 D 2 15 CONDUIT, FURNISH & INSTALL, BRIDGE MOUNT FDMS# 1471859 \$23,0000 \$6,486,00 D 2 65 CONDUIT, REMOVE, BRIDGE MOUNT EDMS# 1471860 \$11,5000 \$1,840,00 B 1121 FIBER OPTIC CABLE, F&I, UNDERGROUND,2-12 FIBERS EDMS# 1471927	D 2 12 CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE EDMS# 1471858 D 2 14 CONDUIT, FURNISH & INSTALL, ABOVEGROUND EDMS# 1471861 \$36,0000 \$2,304,00 \$.00 D 2 15 CONDUIT, FURNISH & INSTALL, BRIDGE MOUNT FDMS# 1471859 \$23,0000 \$6,486,00 \$.00 D 2 65 CONDUIT, REMOVE, BRIDGE MOUNT EDMS# 1471860 \$11,5000 \$1,840,00 \$.00 B 1121 FIBER OPTIC CABLE, F&I, UNDERGROUND,2-12 FIBERS EDMS# 1471927

Example Signatures:



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