

March 22, 2018

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Town of Belleair
901 Ponce de Leon Blvd.
Belleair, FL 33756

Subject: Ponce De Leon / Pinellas Roadway Improvements Plans and Cost Estimate Review

Per your request of March 9, 2018, Pennoni conducted a review of the bid documents and probable construction cost estimate for the Ponce De Leon / Pinellas Roadway Improvements project. The purpose of this review was to provide a secondary check of the plans, bid quantities and construction unit costs. It is our understanding that project is to be cofounded by the Southwest Florida Water Management District and the Town of Belleair with an overall budget of \$2.75 million. The engineer's cost estimate provided to Pennoni had a total construction cost of approximately \$6.2 million which includes mobilization, demolition and contingency.

Reviewed documents included the engineer's construction cost estimate, bid documents made available on the Town's website (through Addendum 2), and AutoCAD files of the project drawings. It should be noted that the AutoCAD files were labeled as being part of a "Construction Bid Set", while the plans made available on the website were labeled as "100% Construction Plans."

The following comments are provided:

1. A review of the unit prices shown in the Cost Estimate revealed that in general they were consistent with unit prices provided by bidders on similar sized projects.
2. Item 3.1 of the Bidders Proposal and Cost Estimate specify 6" Underdrain, while the plans specify 8" Underdrain.
3. The plans propose installation of 49 linear feet of 18" DIP for stormwater piping. This size pipe does not appear in Section 3 "Drainage" of the Cost Estimate/Bidders Proposal.
4. In general, the demolition plans do not indicate the limits of pavement and curbing removal in a consistent manner and appear to be incomplete. In some project areas a hatch pattern is used to denote limits of pavement and curbing removal, while in other areas individual callouts are used. Sheets 6 and 8 do not indicate where pavement removal is proposed for Poinsettia Road and the westerly portion of Osceola Road. The demolition plans should be updated to reduce potential confusion during the bidding and/or construction process.

5. It is unclear as to the extent of Full Depth Roadway Reconstruction that is proposed. A portion of the plan and profile sheets are labeled with this term, and typical sections are provided for five of seven roadways of the project area. Cross sections are provided for a portion of the roadways. The cost estimate suggests that Full Depth Roadway Reconstruction is proposed for all roadways of the project area.
6. Sheet 13 of the plans references Indian Rocks Road and Ponce De Leon Boulevard traffic calming plans that were not included as part of the bid documents.
7. Consideration to enlarge the existing 18" pipe along Ponce De Leon Boulevard to convey runoff from incoming offsite area.
8. To improve project understanding and to simplify navigation between the demolition, plan/profile and utilities/horizontal control sheets, recommend the following:
 - a. Provide north arrows and street names on all sheets
 - b. Add the utilities/horizontal control sheets to the key map on Sheet 2
9. There were some significant quantity differences shown in the Cost Estimate/Bidders Proposal versus those amounts shown on the plans for the following Drainage and Paving items. The table below shows the quantities that are greater than 20% between the bid tabulation values and takeoffs from the plans.

	Bid Item	Unit	Quantity		Unit Price	Difference	Possible Cost Savings
			Bid Proposal	Plans			
3.24	36" RCP	LF	1354	1076	\$210	26%	\$59k
4.1	2.5" Type S-1 Asphalt	SY	17,723	14,777	\$18	20%	\$53K
4.4	Type F Curb	LF	38,347	9,156	\$20	319%	\$584k
4.5	Type D Curb	LF	3,543	2,708	\$20	31%	\$17K
4.7	Concrete Walk 4"	SF	31,573	9,200	\$6	242%	\$134k
4.9	Concrete Drive 6"	SF	21,647	10,830	\$8	100%	\$87k
						Items > 20%	\$934k

10. In order to get the construction cost to the grant amount of \$2.75M will require reducing the limits of the project construction. Construction should occur from downstream to upstream to include the proposed drainage and baffle box. It appears constructing the project portion along Oleander Road and the entire Ponce De Leon Boulevard may stay with the budget limits. It may be possible to also include the segment from Palm View Avenue to Osceola Road.

If you have any questions or comments, please call me at 727-420-2487.

PENNONI ASSOCIATES, INC.

Peter Nikolov, PE
Division Manager



BIDDER'S PROPOSAL									
Project: PINELLAS/OLEANDER ROAD IMPROVEMENTS (2010-160E)									
BID ITEM		UNIT	EST QTY	CHECK QTY	QTY PERCENT DIFFERENCE	UNIT PRICE (\$)	TOTAL (\$)	CHECK TOTAL	COST DIFFERENCE
1.0 Mobilization and Site Preparation									
1.1	Mobilization (10%)	LS	1			473,064	473,064.00		
1.2	Maintenance of Traffic (Section IV, 44)	LS	1			100,000	100,000.00		
1.3	Project Sign (Section III, 22)	EA	1			550	550.00		
1.4	Erosion Control (Section IV, 38)	LS	1			45,000	45,000.00		
1.5	Root Pruning (Section IV, 62)	LF	2,500			8	20,000.00		
1.6	Tree Barricade (Section IV, 62)	LF	1,000			6	6,000.00		
1.7	Tree Removal	EA	215			400	86,000.00		
1.8	Remove & Relocate Palms	EA	-			550	0.00		
1.9	Sprinklers (Yard Frontage) (Section IVa)	LF	5,000			4	20,000.00		
1.10	Conduit for Island (Ponce De Leon (future use))	LF	-			15	0.00		
Subtotal - General (1.1 - 1.10)							750,614.00		
2.0 Earthwork									
2.1	Demolition (10%)	LS	1			473,064	473,064.00		
2.2	Remove Unsuitable Material (Section IV, 17)	CY	2,000			35	70,000.00		
2.3	Sod (Section IV, 31)	SF	62,000			1	62,000.00		
2.4	Staging Area Restoration	LS	0			45,000	0.00		
2.5	Demolition of Landscape Areas	SF	0			100	0.00		
2.6	Flowable Fill	CY	40			343	13,720.00		
Subtotal - Earthwork (2.1 - 2.6)							618,784.00		
3.0 Drainage									
3.1	8" Underdrain Contech 2000 (Section IV, 18)	LF	6245	5469	14%	29	181,105.00	158,601.00	22,504.00
3.2	Underdrain Cleanouts (Section IV, 18)	EA	42	36	17%	250	10,500.00	9,000.00	1,500.00
3.3	Nutrient Box 12'x20'	EA	1	1	0%	125,000	125,000.00	125,000.00	
3.4	FDOT Storm MH (5' DIA Type-J (alt A) bottom) (Section IV, 33)	EA	1	1	0%	4,500	4,500.00	4,500.00	
3.5	FDOT Storm MH (6' DIA Type-J (alt A) bottom) (Section IV, 33)	EA	6	6	0%	5,000	30,000.00	30,000.00	
3.6	FDOT Storm MH (7' DIA. Type-J (alt A) bottom) (Section IV, 33)	EA	6	6	0%	7,000	42,000.00	42,000.00	
3.7	FDOT Storm MH Type-J 7x12 (alt B) Bottom (Section IVa)	EA	1	1	0%	9,500	9,500.00	9,500.00	
3.8	FDOT Conflict Storm Box w/Riser & Type J Bottom Cast In Place (Section IVa)	EA	1	1	0%	7,500	7,500.00	7,500.00	
3.9	Type D Inlet Grate Inlet	EA	2	2	0%	3,500	7,000.00	7,000.00	
3.10	PCED – Modified FDOT Curb Inlet J 5-3.5' (alt A) bottom (Section IV, 33)	EA	4	4	0%	3,500	14,000.00	14,000.00	
3.11	PCED – Modified FDOT Curb Inlet J5-4' (alt A) bottom (Section IV, 33)	EA	4	1	300%	4,200	16,800.00	4,200.00	12,600.00
3.12	PCED – Modified FDOT Curb Inlet J5-5' (alt A) bottom (Section IVa)	EA	1	1	0%	5,200	5,200.00	5,200.00	
3.13	PCED – Modified FDOT Curb Inlet J 5-5x 7' Type P (Alt B) bottom (Section IVa)	EA	1	1	0%	7,500	7,500.00	7,500.00	
3.14	PCED – Modified FDOT Curb Inlet J 5-5 x 5 Type P (Alt B) bottom (Section IVa)	EA	4	4	0%	5,700	22,800.00	22,800.00	
3.15	PCED – Modified FDOT Curb Inlet J 5- 4 x 4 Type P (Alt B) bottom	EA	1	1	0%	4,500	4,500.00	4,500.00	
3.16	PCED – Modified FDOT Curb Inlet J 5-3.5x3.5 Type P (Alt B) bottom	EA	25	27	-7%	4,200	105,000.00	113,400.00	-8,400.00
3.17	PCED – Modified FDOT Curb Inlet J 6-3.5x3.5 Type P (Alt B) bottom	EA	2	2	0%	4,200	8,400.00	8,400.00	0.00
3.18	Core Into Exist Inlet (Section IV, 33)	EA	1	1	0%	2,000	2,000.00	2,000.00	
3.19	Remove Existing Inlet Top Const. 5' MH (ES19)	EA	1	1	0%	1,500	1,500.00	1,500.00	
3.20	15" RCP (Section IV, 19)	LF	590	494	19%	85	50,150.00	41,990.00	8,160.00
3.21	18" RCP (Section IV, 19)	LF	300	372	-19%	90	27,000.00	33,480.00	-6,480.00
3.22	24" RCP (Section IV, 19)	LF	440	440	0%	111	48,840.00	48,840.00	0.00
3.23	30" RCP (Section IV, 19)	LF	430	430	0%	135	58,050.00	58,050.00	0.00
3.24	36" RCP (Section IV, 19)	LF	1354	1075	26%	210	284,340.00	225,750.00	58,590.00
3.25	42" RCP (Section IV, 19)	LF	320	320	0%	220	70,400.00	70,400.00	0.00
3.26	48" RCP (Section IV, 19)	LF	1430	1254	14%	274	391,820.00	343,596.00	48,224.00
3.27	14" DIP	LF	24	24	0%	95	2,280.00	2,280.00	
	18" DIP	LF		49	-100%	130	0.00	6,370.00	-6,370.00
Subtotal - Drainage (3.1 - 3.27)							1,537,685.00		130,328.00
4.0 Paving And Marking									
4.1	2.5" FDOT Type S-1 Asphalt (Section IV, 23)	SY	17,723	14,777	20%	18.00	319,014.00	265,986.00	53,028.00
4.2	8" Crushed Concrete Base (Section IV, 22)	SY	21,353	18,557	15%	18.00	384,354.00	334,026.00	50,328.00
4.3	12" Stabilized Sub-Base (Section IV, 22)	SY	21,353	18,557	15%	9.00	192,177.00	167,013.00	25,164.00
4.4	FDOT Type F Curb (Section IV, 29)	LF	38,347	9,156	319%	20.00	766,940.00	183,120.00	583,820.00
4.5	FDOT Type D Curb (Section IV, 29)	LF	3,543	2,708	31%	20.00	70,860.00	54,160.00	16,700.00
4.6	FDOT Valley Gutter Curb (Section IV, 29)	LF	741			33.00	24,453.00		
4.7	Concrete Walk 4" (Section IV, 30)	SF	31,573	9,220	242%	6.00	189,438.00	55,320.00	134,118.00
4.8	Concrete Walk 6" (Section IV, 30)	SF	535			8.00	4,280.00		
4.9	Concrete Drive Replacement 6" (Section IV, 30)	SF	21,647	10,830	100%	8.00	173,176.00	86,640.00	86,536.00
4.10	Brick Walk (Section IVa) (1355 Pinellas)	SF	60			6.00	360.00		
4.11	Brick Drive Replacement (Section IV, 30)	SF	4,396	3,956	11%	6.00	26,376.00	23,736.00	
4.12	ADA Ramps (Total of 4836 SF Concrete.) (1268+2973)	EA	53	28	89%	1,250.00	66,250.00	35,000.00	
4.13	Pavement Markings - 24" White Stop Bar (Section IV, 60)	LF	210			20.00	4,200.00		
4.14	FDOT Collar	EA	3			350.00	1,050.00		
4.15	RELOCATE STOP Signs	ea	30			0.00	0.00		
Subtotal - Paving and Marking (4.1 - 4.14)							2,222,928.00		949,694.00

5.0	Utilities - Sanitary								
5.1	Adjust Sanitary Manhole Rims (Section IV, 23.7)	EA	3			450.00	1,350.00		
5.2	8" DIP Sanitary w/Fittings (Section IV, 20)	LF	180	71	154%	122.00	21,960.00		
5.3	Sanitary Sewer Service Lateral - Conflict (Section IV 20)	EA	5			350.00	1,750.00		
5.4	6" DIP Sanitary w/Fittings (Section IV, 20)	LF	56			95.00	5,320.00		
Subtotal - Utilities - Sanitary (5.1 - 5.4)							30,380.00		
6.0	Utilities - Reclaimed Water								
6.1	18" DIP For Reclaim Conflict w/Fittings (Section IV, 41)	LF	120			115.00	13,800.00		
Subtotal - Utilities - Reclaimed Water (6.1)							13,800.00		
7.0	Utilities - Potable Water								
7.1	2" Water Service Short (Section IV, 41)	EA	55			300.00	16,500.00		
7.2	2" Water Service In 4" Sleeve (Section IV, 41)	EA	14	32	-56%	450.00	6,300.00		
7.3	2" Polytube DR9 Water Main (Section IV, 41)	LF	3200	2671	20%	25.00	80,000.00		
7.4	4" PVC Water Main C-900 (Section IV, 41)	LF	475			34.00	16,150.00		
7.5	6" PVC Water Main C-900 (Section IV, 41)	LF	1519	679	124%	44.00	66,836.00		
7.6	8" PVC Water Main C-900 (Section IV, 41)	LF	108	90	20%	54.00	5,832.00		
7.7	10" PVC Water Main C-900 (Section IV, 41)	LF	1917	1707	12%	61.00	116,937.00		
7.8	4" Line Stops (Section IV, 41)	EA	2			1,800.00	3,600.00		
7.9	6" Line Stops (Section IV, 41)	EA	2			2,500.00	5,000.00		
7.10	10" Line Stops (Section IV, 41)	EA	1			4,620.00	4,620.00		
7.11	2" Ball Valves (Section IV, 41)	EA	18			300.00	5,400.00		
7.12	4" Gate Valves (Section IV, 41)	EA	2			750.00	1,500.00		
7.13	6" Gate Valves (Section IV, 41)	EA	6			890.00	5,340.00		
7.14	8" Gate Valves (Section IV, 41)	EA	1			1,650.00	1,650.00		
7.15	10" Gate Valves (Section IV, 41)	EA	6			2,000.00	12,000.00		
7.16	2"X10" Tapping Sleeve & Valve (Section IV, 41) (On Live 2" Line By Compression)	EA	2			1,500.00	3,000.00		
7.17	2"X6" Tapping Sleeve & Valve (Section IV, 41)	EA	1			1,900.00	1,900.00		
7.18	6"X10" Tapping Sleeve & Valve (Section IV, 41)	EA	1			2,300.00	2,300.00		
7.19	Fire Hydrant Assemblies (Section IV, 41)	EA	10			3,800.00	38,000.00		
7.20	4" utility conduit	lf	150				0.00		
						4,500.00	0.00		
Subtotal - Utilities - Potable Water (7.1 - 7.23)							392,865.00		
TOTAL Utilities (5.1 - 7.23)							437,045.00		
8.0	Lighting								
8.1	Remove & Reinstall Light Pole (Section IV, 9)	EA	25			1,000.00	25,000.00		
8.2	New Light Poles	EA	-			1,800.00	0.00		
8.3	PVC Conduit	LF	4050			10.00	40,500.00		
8.4	Wire	LF	12150			1.50	18,225.00		
8.5	Electrical Risers	EA	4			1,500.00	6,000.00		
8.6	Remove Old Electrical Services	EA	5			500.00	2,500.00		
8.7	Pull Boxes	EA	35			500.00	17,500.00		
Subtotal - Lighting (8.1 - 8.7)							109,725.00		
9.0	Irrigation								
9.1	Rainbird 10 foot Radius Half Circle Sprayhead	EA				25.00	0.00		
9.2	Rainbird 12 foot Radius Half Circle Sprayhead	EA				25.00	0.00		
9.3	Rainbird 15 foot Radius Half Circle Sprayhead	EA				25.00	0.00		
9.4	Water Source - Connect to Existing Water Meter	EA				1,250.00	0.00		
9.5	150 PESB - R 1.5 inch Electrical Remote Control Valve	EA				1,000.00	0.00		
9.6	Irrigation Controller	EA				500.00	0.00		
9.7	Schedule 40 PVC Sleeves, 4 inch	LF				12.00	0.00		
9.8	Schedule 40 PVC Mainline - 2 inch	LF				7.00	0.00		
9.9	Schedule 40 PVC Lateral Lines, as noted on plan set	LF				7.00	0.00		
Subtotal - Irrigation (9.1 - 9.9)							0.00		
SUBTOTAL (1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0)							5,676,781.00		
Total - (10% Contingency)							567,678.10		
TOTAL CONSTRUCTION COST (1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0)							6,244,459.10		