

Bennett Engineering & Consulting

Clayton Bennett, PE ~ Managing Member 4940 Ranchland Road Melbourne, FL 32934

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September 6, 2024

Ms. Kimberly B. Rezanka 6013 Farcenda, PL, Suite 101 Melbourne, FL 32940

Re: 1865 & 1935 S. Banana River Drive, Merritt Island

Engineering Assessment

BEC No. 23.420

Dear Ms. Rezanka:

As requested, we prepared a plan view sketch showing the limits for the dredging, littoral shelf, and stormwater treatment swale. Furthermore, using the best available data for Pelican Creek, the cross-sections prepared by Fleis Associates and submitted as part of the 1991, SJRWMD permit number 12-009-0056S were "redlined" to show the revised improvements.

The dredging of the canal would not only increase the cross-sectional flow area of the Pelican Creek but would also reduce the Manning's roughness coefficient "n", both of which would reduce the hydraulic grade in Pelican Creek.

The littoral shelf would provide space for the planting of appropriate wetland vegetation along the shoreline, and the stormwater treatment swales be designed to capture and retain a minimum of 1-inch of runoff from the impervious area draining toward the shoreline. Both the littoral shelf and the stormwater treatment swales would improve water quality.

Should you have any questions or need additional information, please contact me directly.

Bennett Engineering & Consulting, LLC.

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Clayton A. Bennett, P.E. Managing Member



