

Cocoa Beach Canal Dredging



- 36 city-owned canals
- Originally dredged in late 50s & 60s to create streets
- 6 canals receive major stormbasin discharge (42" – 72" outfalls)
- 129 outfalls, ~ 115 drain to canals (buffer prior to lagoon)
- Muck layers can reach > 6' thick, average 3-4' thick



Jack/Kent Canal 7,414 CY

Dorset/Carmine Canal 34,554 CY

Carmine/Barrello Canal 12,987 CY

Barrello/Angelo Canal 13,779 CY

Angelo/SR520 Canal 7,911 CY

Cocoa Isles/Capri Canal ? CY

4th St N/Blakey Canal 2,699 CY

North Shore/Indian Village Canal 1,639 CY

Brevard/Sunset Canal 4,440 CY

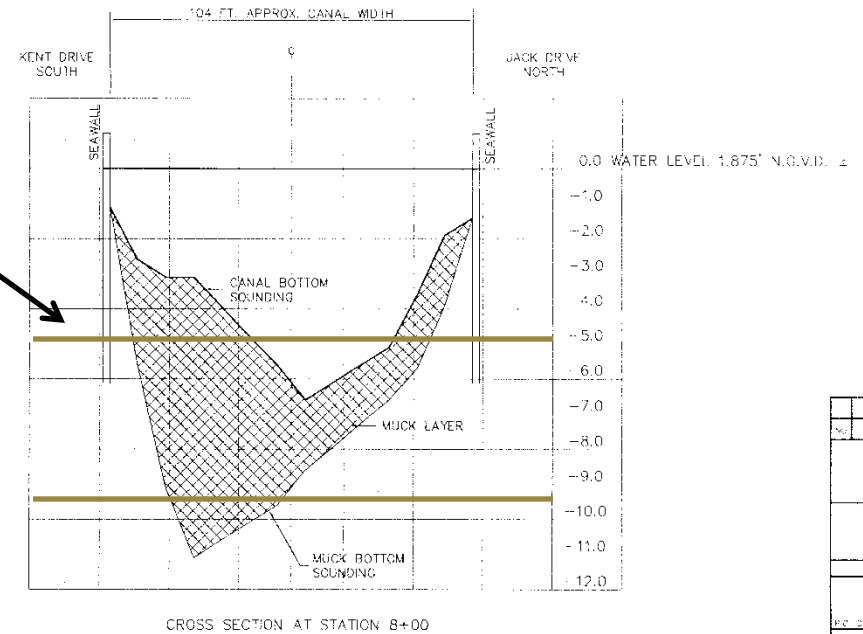
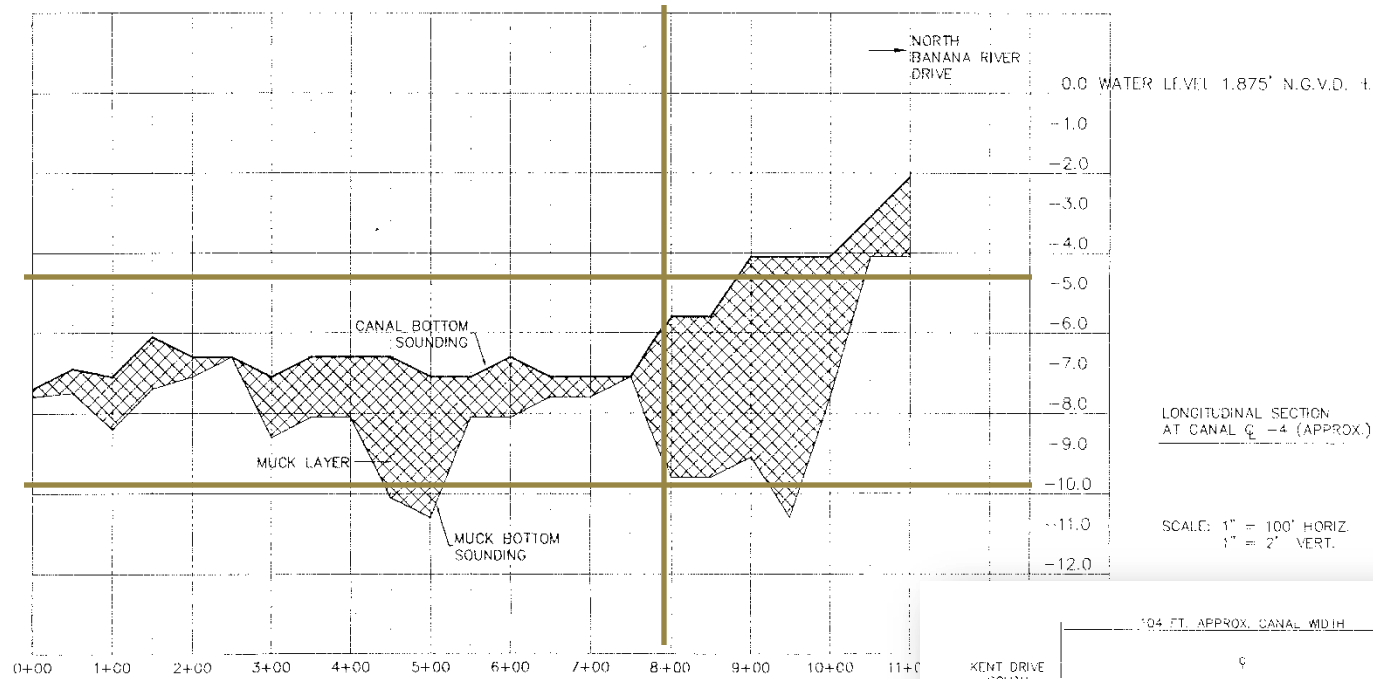
Aucila/Sunset Canal 2,241 CY

Rose/Riverview Canal 927 CY

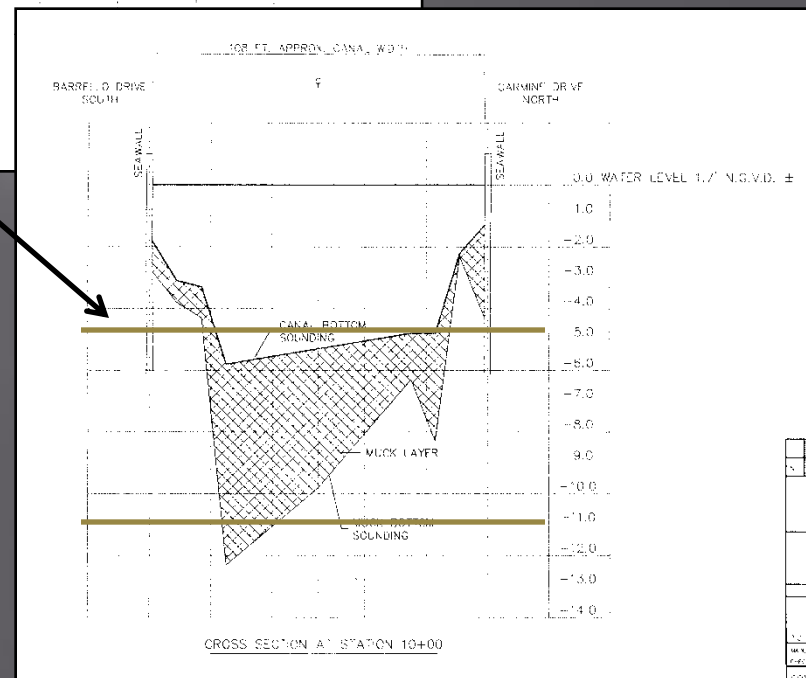
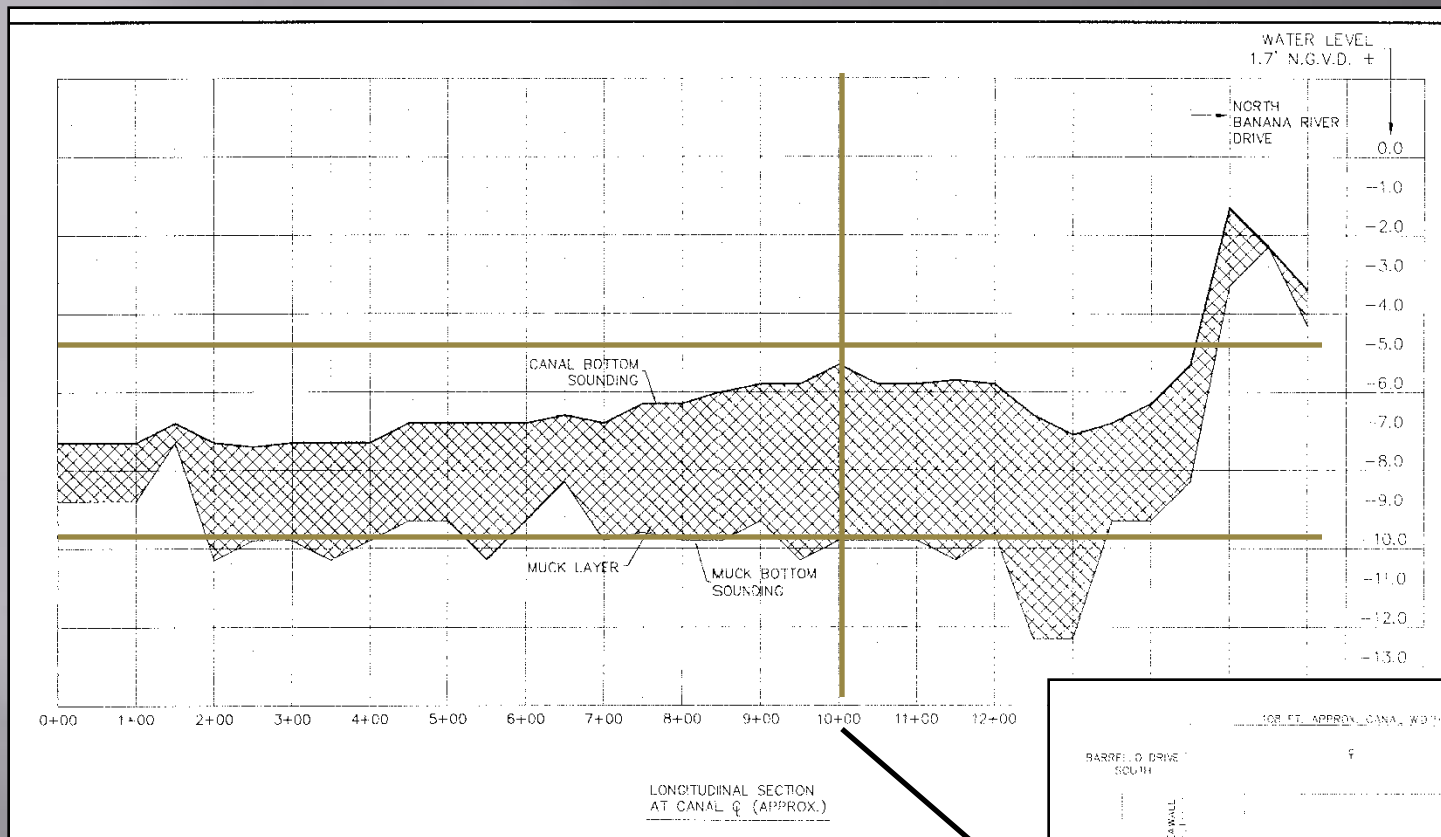
11 Canals Dredged in ~ 12 Years

3 under maintenance dredging

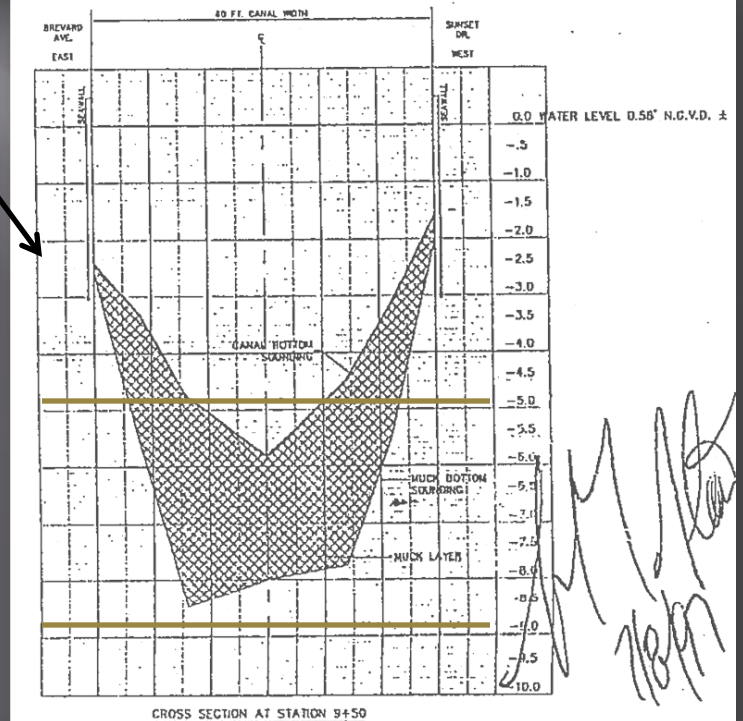
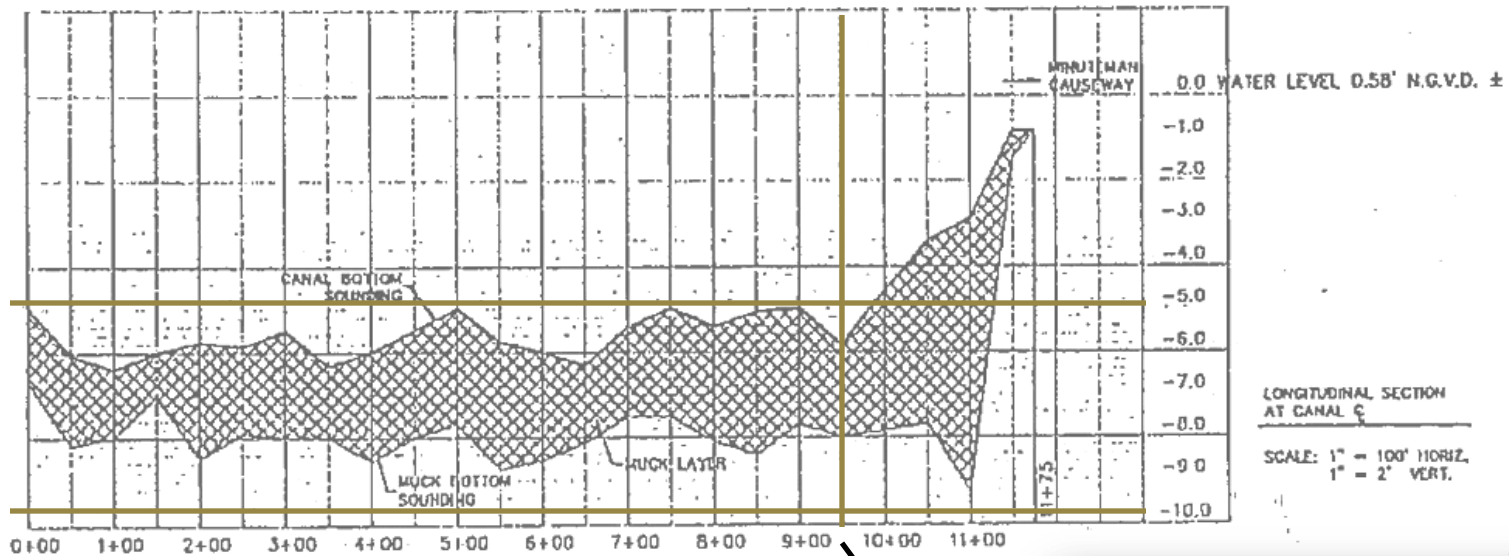
8 under ERP/USACE permit



Jack/Kent Canal
7,414 cubic yards



Carmine/Barrello Canal
12,987 cubic yards



Brevard/Sunset Canal
4,440 cubic yards





Cocoa Beach Watershed Modeling Study Assessment of Annual Pollutant Loads

Dr. Ashok Pandit, 1996

**North Shore/Indian Village Canal
48" Outfall
49.5 acres**

September 9, 1994

Rain Duration - 0.4 hours

Rain Depth - 0.7 inches

Intensity - 1.8 in/hour

Peak Discharge Rate - 7,811 GPM

Average Flow - 331 GPM

Flow Duration - 6 hours

Storm Discharge Volume - 257,366 gallons



Cocoa Beach Watershed Modeling Study Assessment of Annual Pollutant Loads

Dr. Ashok Pandit, 1996

**North Shore/Indian Village Canal
48" Outfall
49.5 acres**

February 28, 1995

Rain Duration - 3 hours

Rain Depth - 1.14 inches

Intensity - 0.38 in/hour

Peak Discharge Rate - 2908 GPM

Average Flow - 248 GPM

Flow Duration - 6 hours

Storm Discharge Volume - 133,193 gallons



Cocoa Beach Watershed Modeling Study Assessment of Annual Pollutant Loads

Dr. Ashok Pandit, 1996

**North Shore/Indian Village Canal
48" Outfall
49.5 acres**

May 23, 1995

Duration - 0.75 hours

Rain Depth - 0.43 inches

Intensity - 0.57 in/hour

Peak Discharge Rate - 3,254 GPM

Average Flow - 347 GPM

Flow Duration - 3.2 hours

Storm Discharge Volume - 101,801 gallons



Cocoa Beach Watershed Modeling Study Assessment of Annual Pollutant Loads

Dr. Ashok Pandit, 1996

**North Shore/Indian Village Canal
48" Outfall
49.5 acres**

June 4, 1995

Duration - 4.3 hours

Rain Depth - 0.94 inches

Intensity - 0.22 in/hour

Peak Discharge Rate - 4,055 GPM

Average Flow - 650 GPM

Flow Duration - 6+ hours

Storm Discharge Volume - 244,416 gallons



Cocoa Beach Watershed Modeling Study Assessment of Annual Pollutant Loads

Dr. Ashok Pandit, 1996

**North Shore/Indian Village Canal
48" Outfall
49.5 acres**

July 10, 1995

Duration - 1.9 hours

Rain Depth - 0.33 inches

Intensity - 0.17 in/hour

Peak Discharge Rate - 1,203 GPM

Average Flow - 347 GPM

Flow Duration - 4 hours

Storm Discharge Volume - 76,282 gallons



Dredge Spoilsite
~ 0.5 acres, polymer
Consistent low NTUs
~ 1 canal/year