

Large-Scale Search for Tidal Mitigation Sites on the Elizabeth River, Virginia

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Objectives

- Introduce the CIEE Project and its compensatory mitigation requirements
- Site search criteria on the Elizabeth River
- Tiered evaluation
- Data collection and usage
- Findings
- First site nearly finished

Craney Island Eastward Expansion (CIEE)

- Craney Island Dredged Material Management Area (CIDMMA)
- Constructed from 1956 to 1958
- 2,500 acres
- Originally designed for a 20 year life span
- Corps and Virginia Port Authority (VPA) need more capacity

Craney Island Eastward Expansion (CIEE) (cont'd)



Craney Island Eastward Expansion (CIEE) (cont'd)

- 1997 - Feasibility Study was authorized by Congress
- 2005 - FEIS Completed
- 2008 - 404 Permit Application Submitted
- 2009 - Permit issued
- 2011 - Construction begins



Proposed Impacts

- 513 acres of subaqueous bottom
- 8 acres of non-vegetated wetlands
- 0.2 acre of tidal emergent wetlands
- 1.5 acres of non tidal emergent wetlands



Mitigation Components

- Restore 411 acres of contaminated river bottom
- Create 20 acres of oyster grounds
- Create/Restore 56 acres of tidal wetlands

Data Collection and Usage

- Desktop survey which employed the use of ArcMap® software from Environmental Systems Research Institute (ESRI) to analyze geographic information system (GIS).
- Computer-aided design (CAD) information obtained from private corporations, non-profit organizations, city, state and federal agencies.
- Used to identify areas or conditions that could potentially benefit or encumber wetland creation on the evaluated site.

Tiered Site Selection

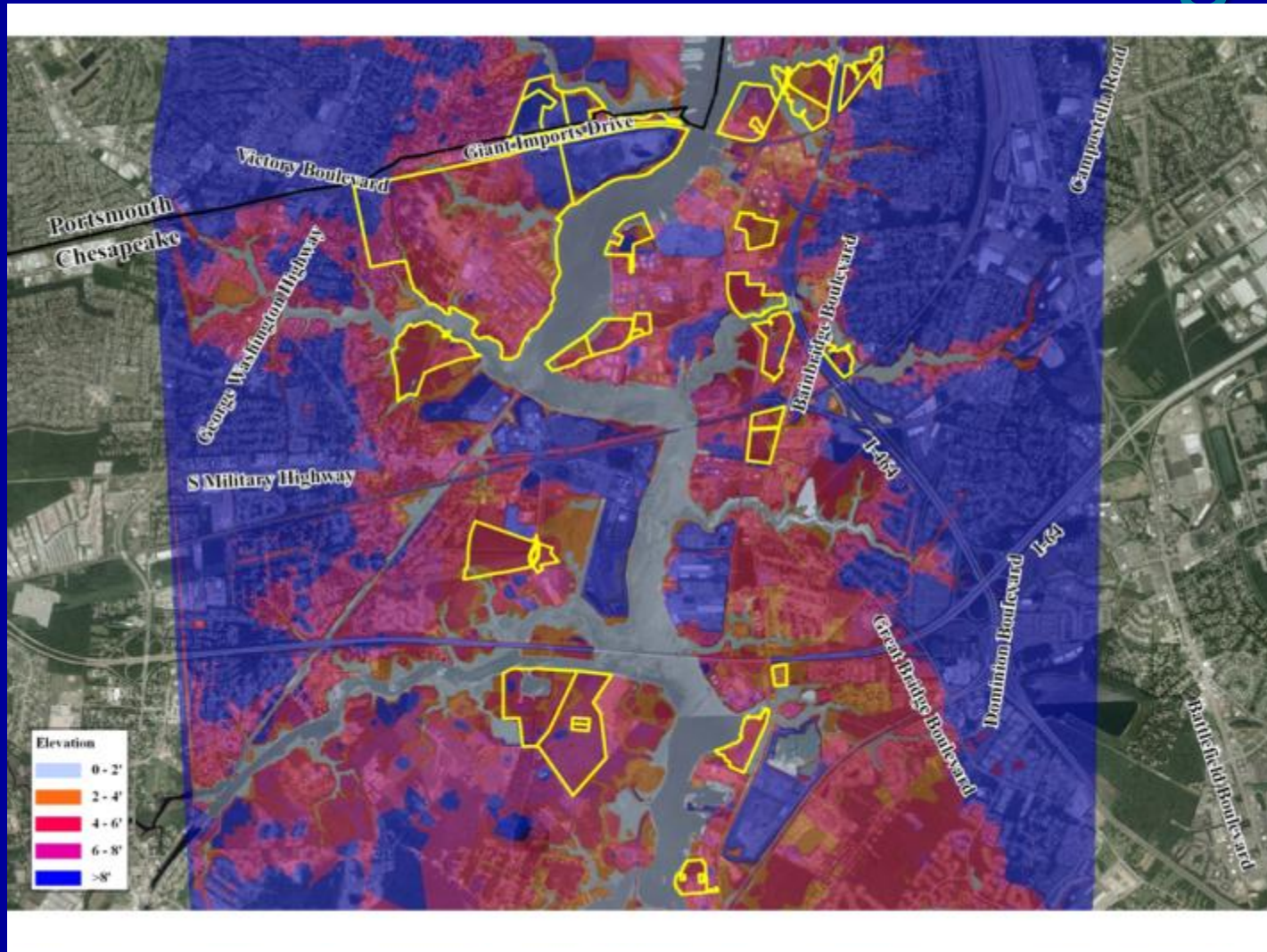
- Landscape Approach on the Elizabeth River
- Parcel Development
- Topography
- Site Size

Tier 1

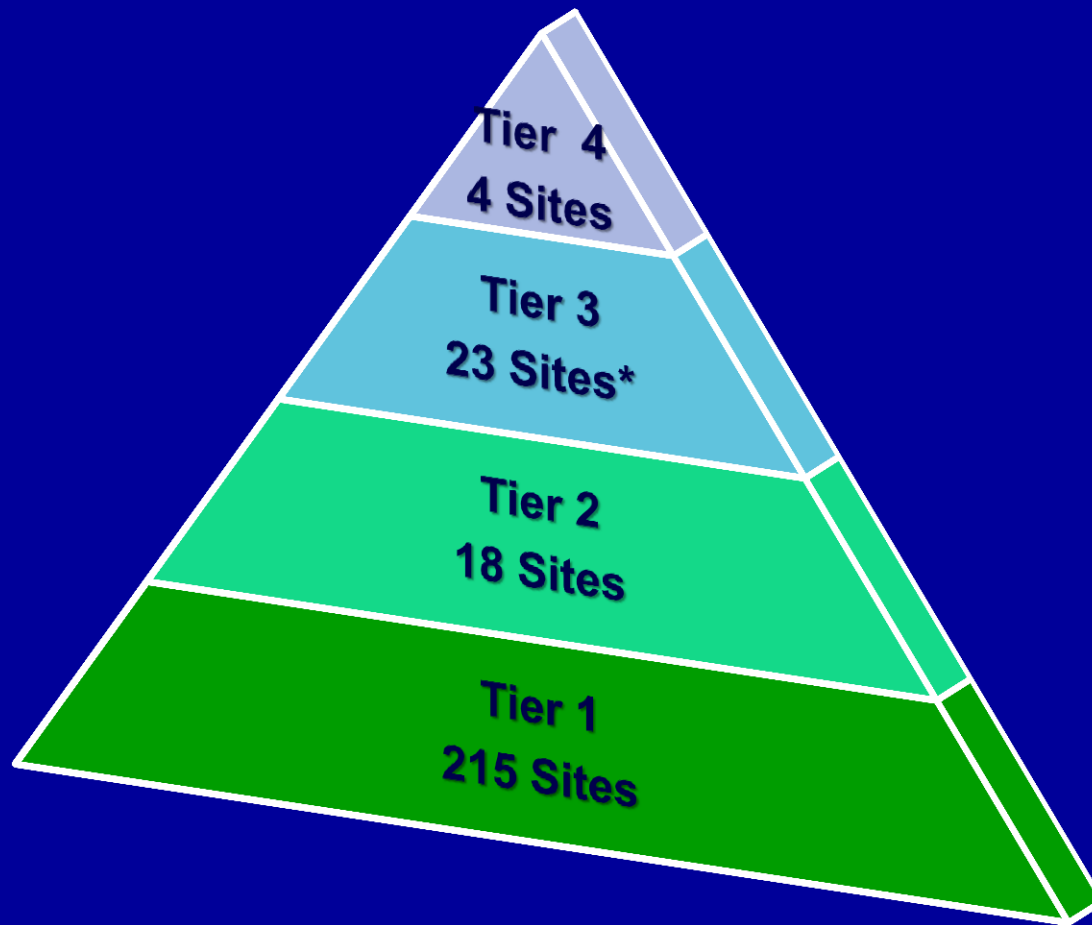
- Existence of Jurisdictional Features on Site
- Proximity to Tidal Waters (Hydrology)
- Accessibility for Construction
- Potential for Contamination
- Infrastructure Encumbrances on Site
- Resource Protection Area Encumbrances on Site

Tier 2

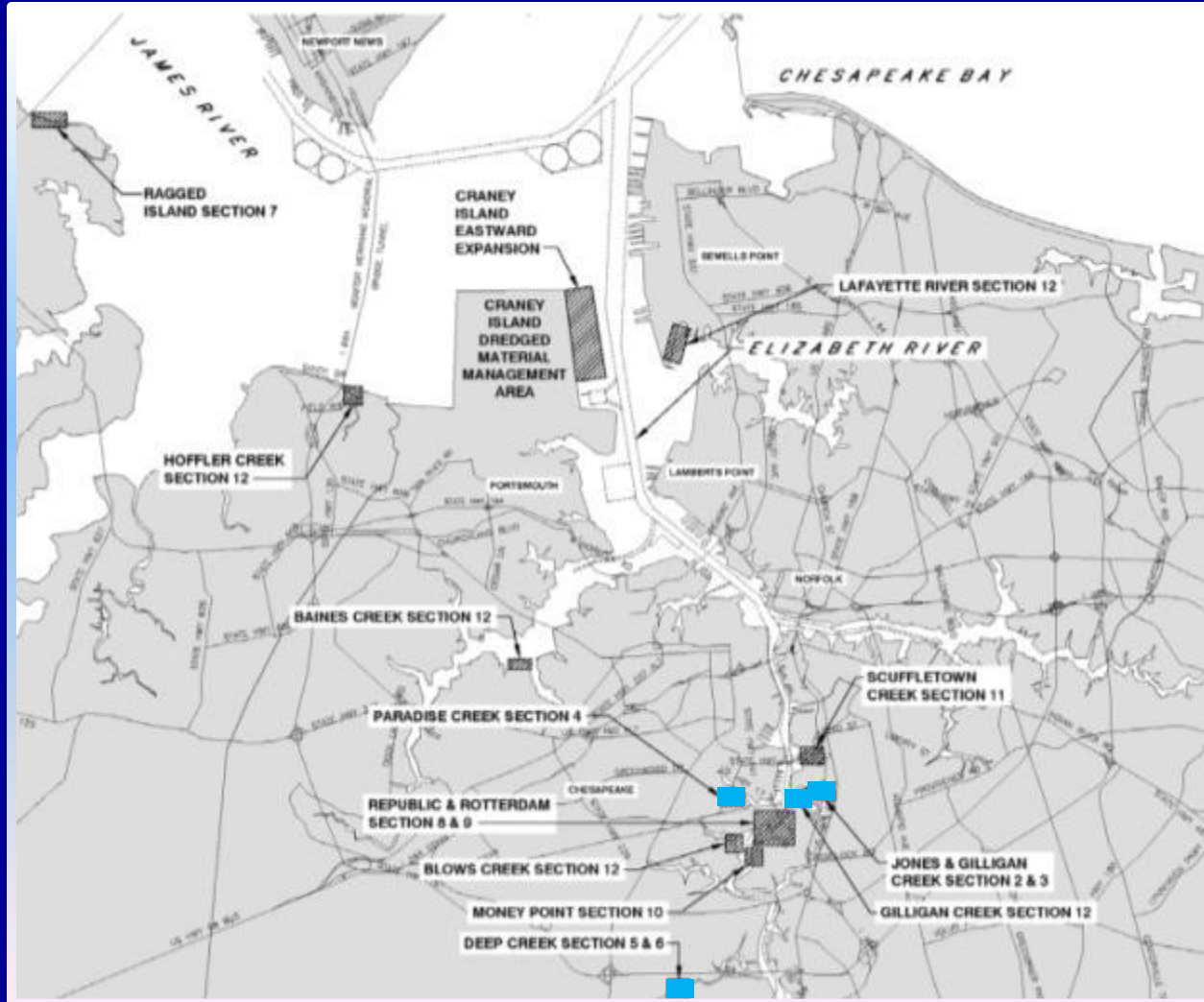
Data Collection and Usage



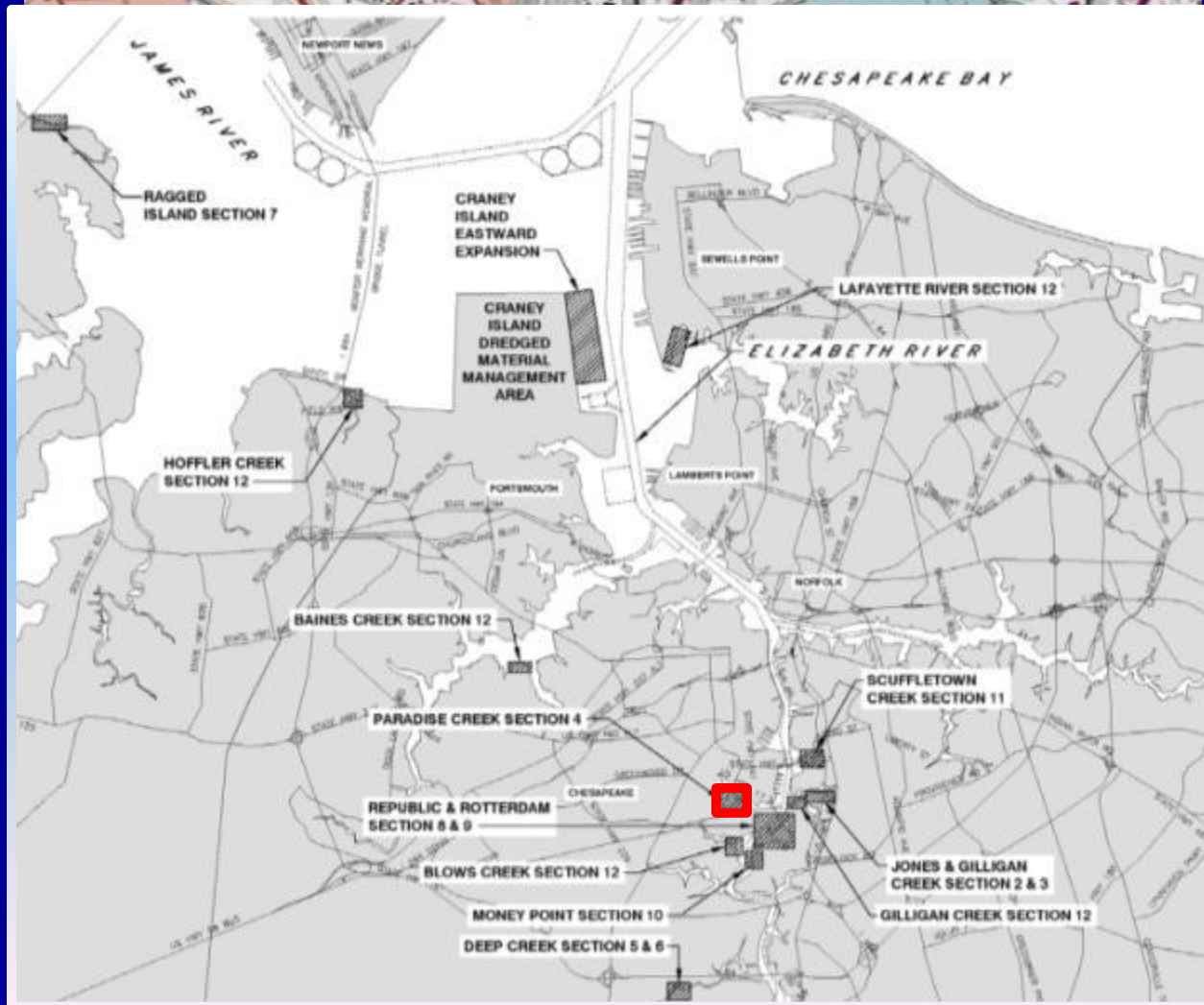
Findings



Findings



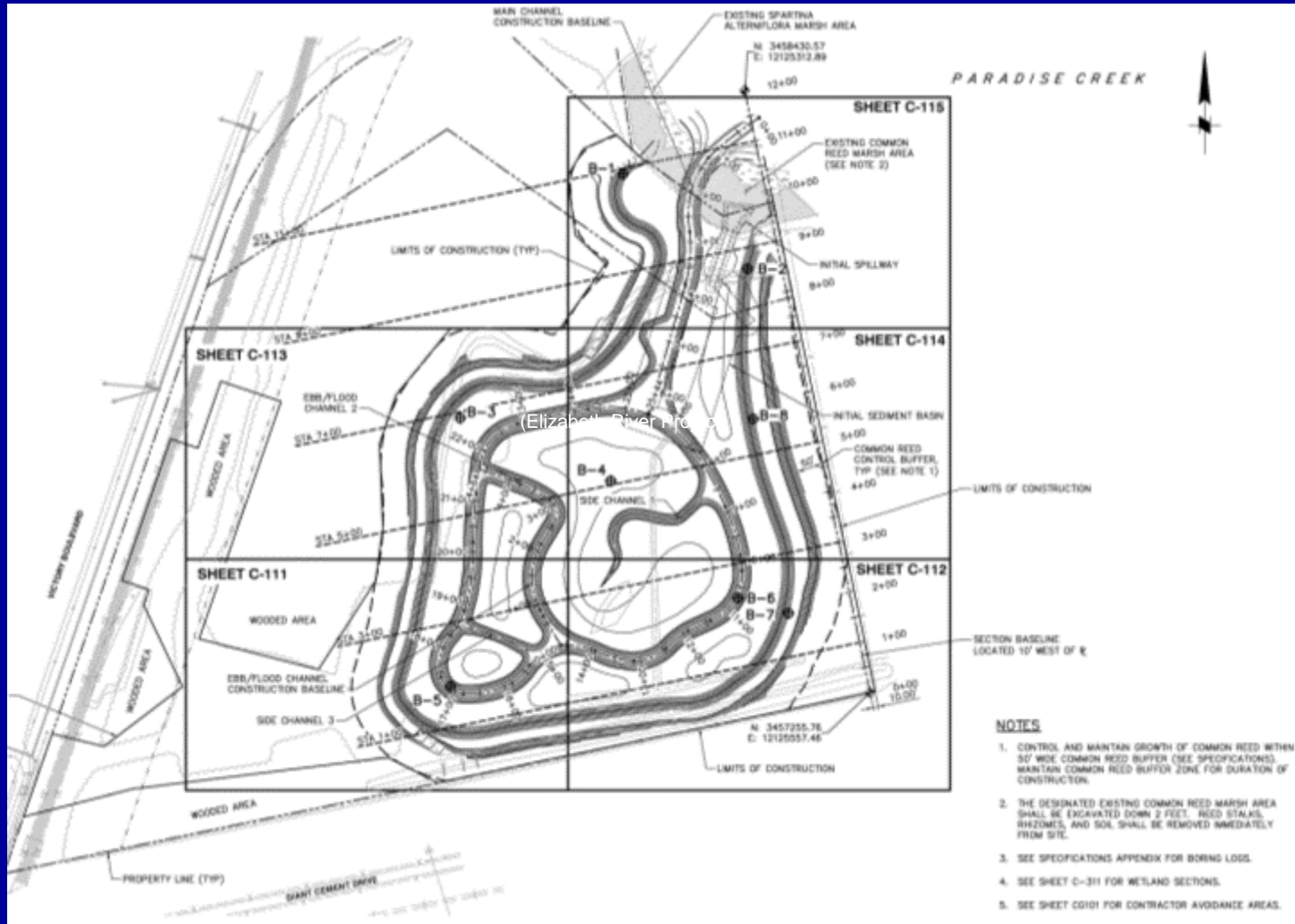
Paradise Creek



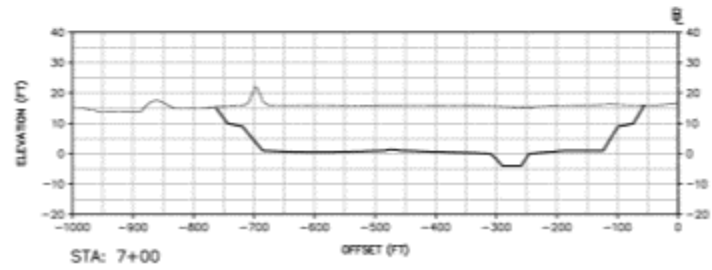
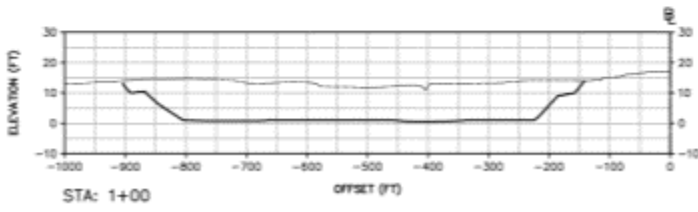
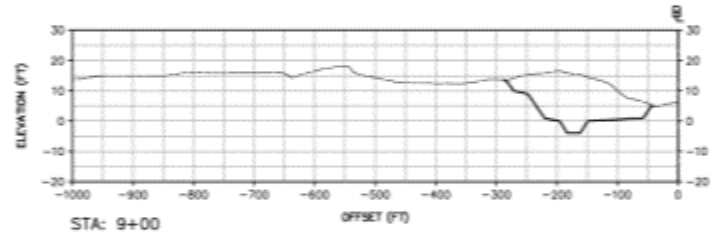
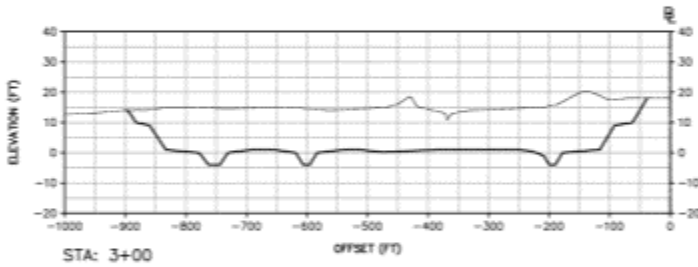
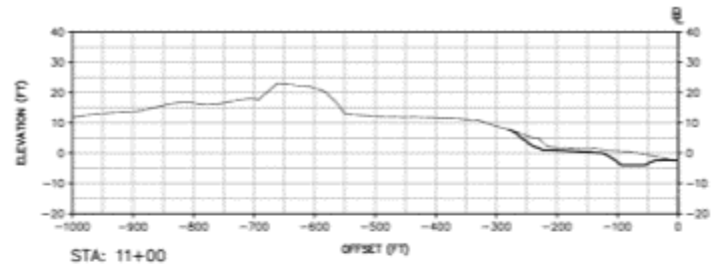
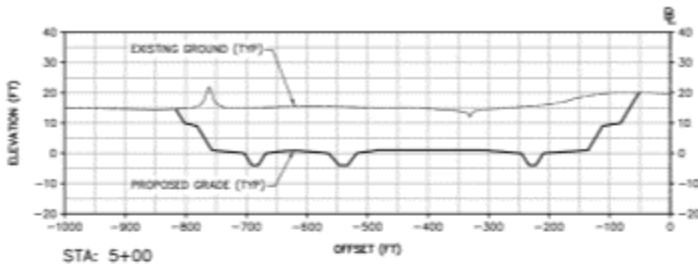
Paradise Creek

- Paradise Creek, Portsmouth, Virginia
- 11 Acres of wetlands
- Former wetland filled by Corps in 1950's
- Excavated 300,000 CY
- Part of not for profit Eco-Park (Elizabeth River Project)

Paradise Creek



Paradise Creek



Paradise Creek



Paradise Creek



Paradise Creek



Thank You