



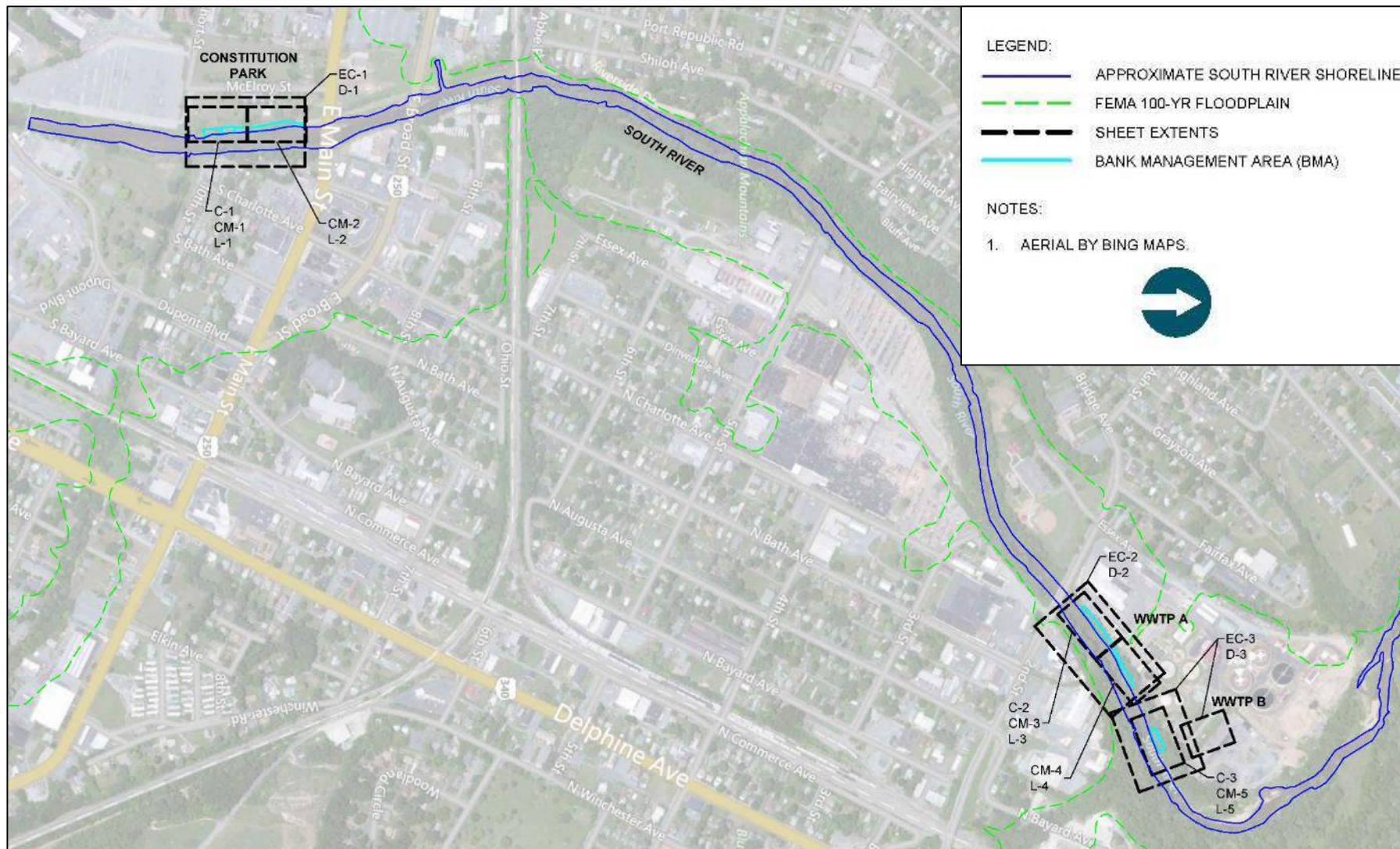
Remedial Design / Permitting South River Phase 1A Banks

Clay Patmont

July 2016



Phase 1A Bank Management Areas (BMAs)



Multiple BMA Objectives

- Design criteria
 - Reduce mercury loading
 - Maintain / improve habitat
 - Minimize disruption
 - Use proven / effective methods
 - Address stakeholder concerns
- Optimize and balance criteria
- Location-specific considerations
 - Slopes determine design elements
 - Existing habitat quality varies
- Demonstrate effectiveness



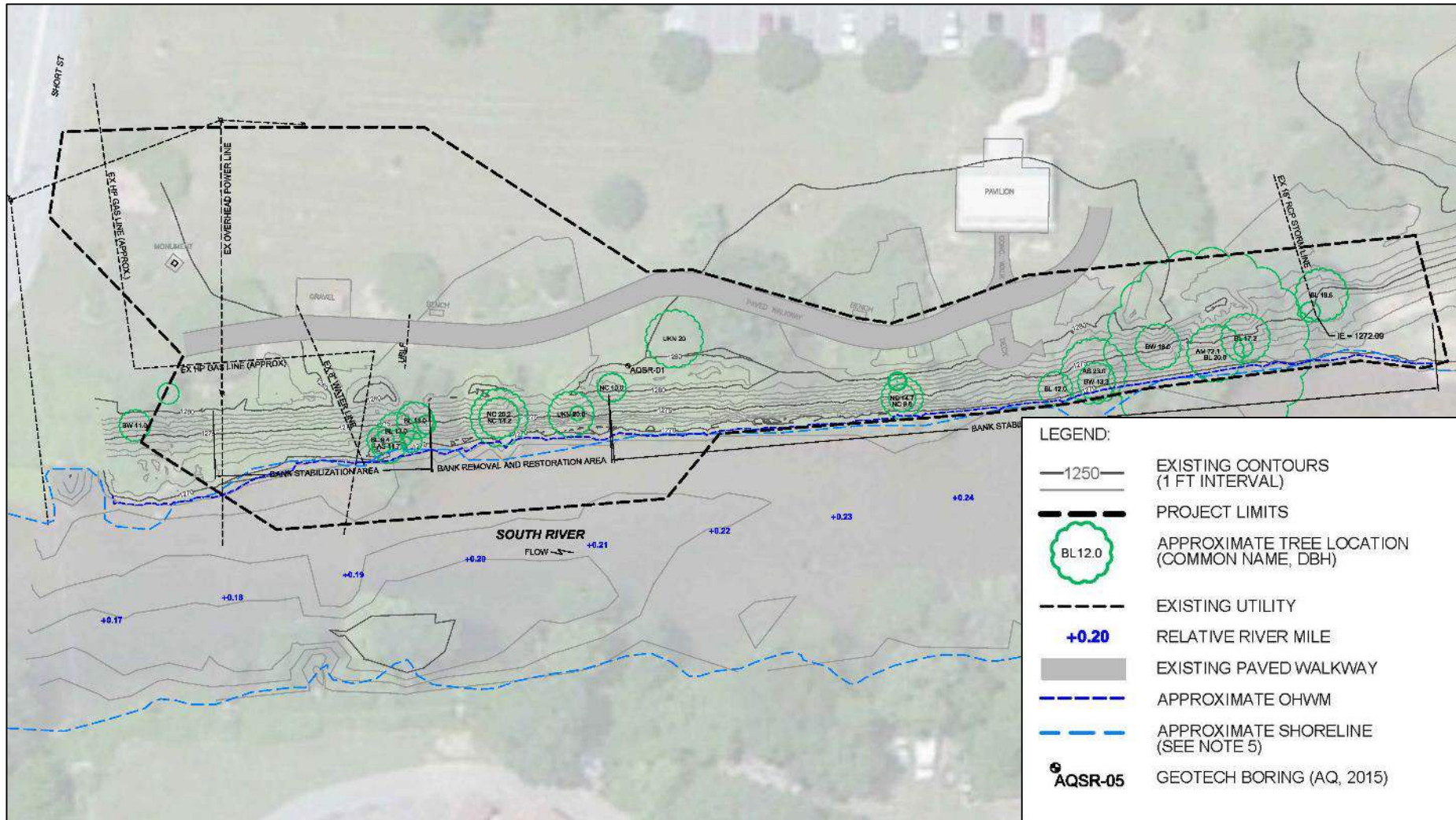
Constitution Park BMA Remedy

Characteristic	Primary BMA	Secondary BMA
Length	70 ft	440 ft
Bank height range	10 – 11 ft	6 – 12 ft
Current THg Loading Estimate	0.9 kg/yr	1.1 kg/yr
Projected THg Loading Reduction	~90%	

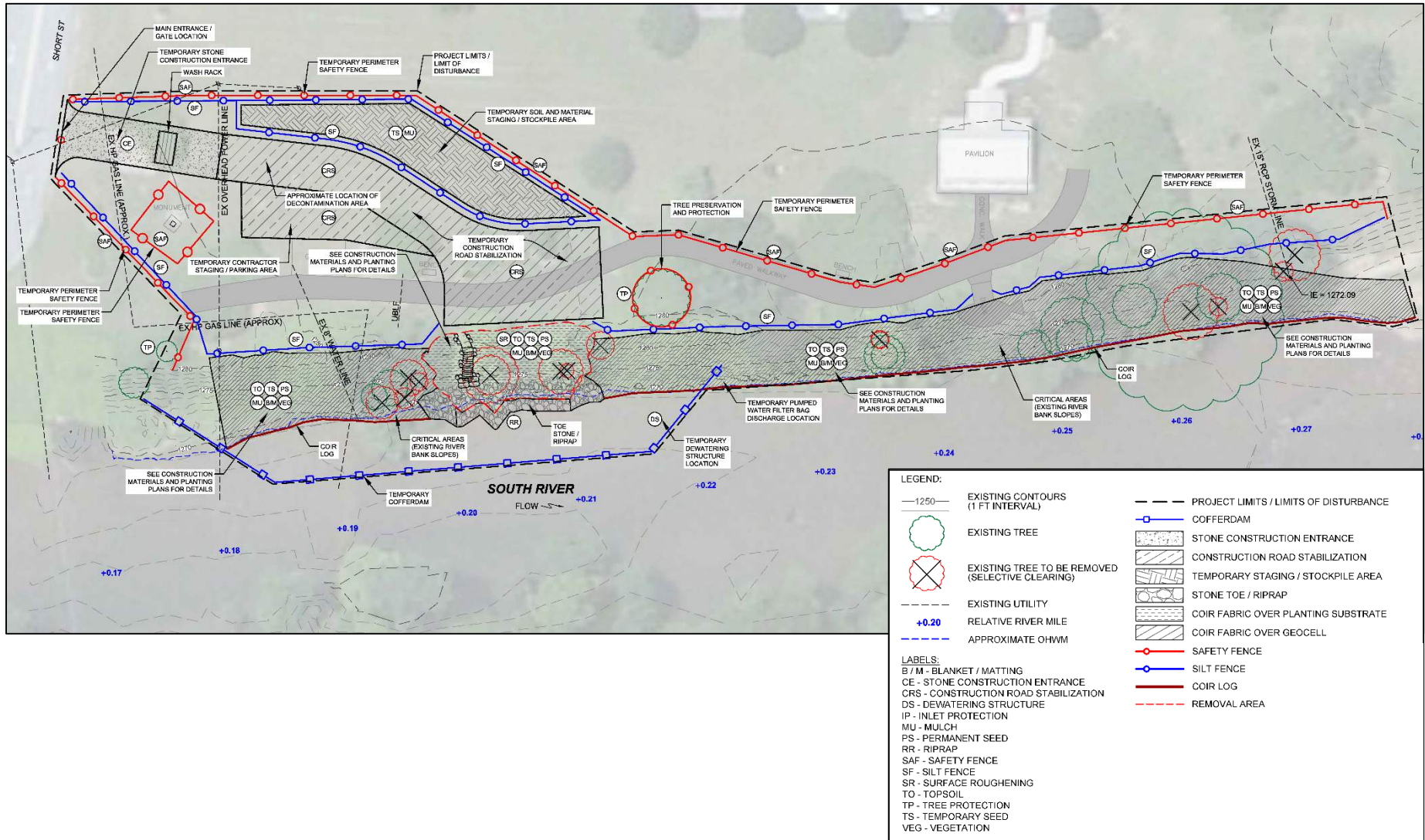
- Primary BMA
 - Removal and bank restoration
- Secondary BMA
 - Vegetative stabilization
 - Extended downstream to evaluate potential construction effects on mature trees



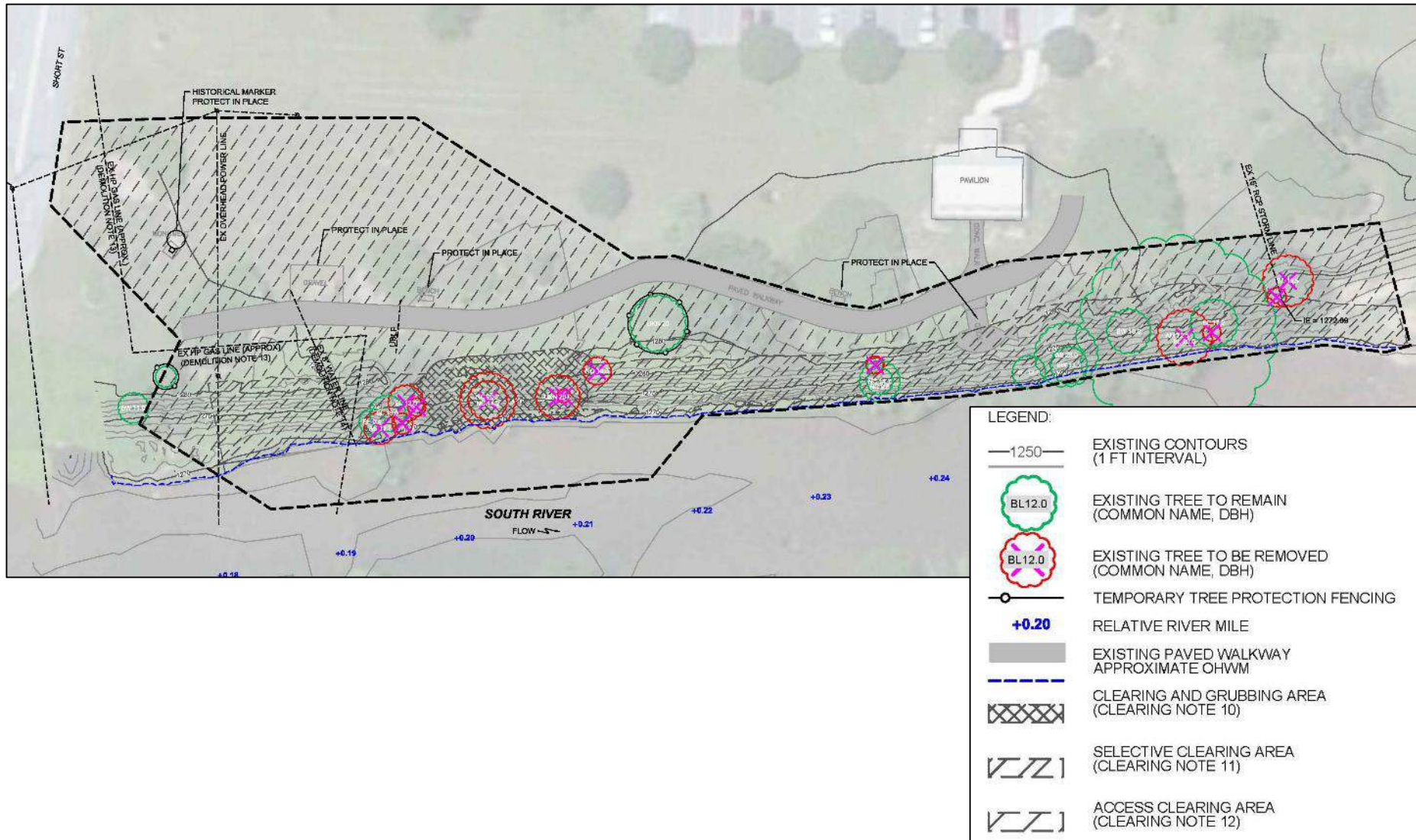
Constitution Park: Existing Conditions



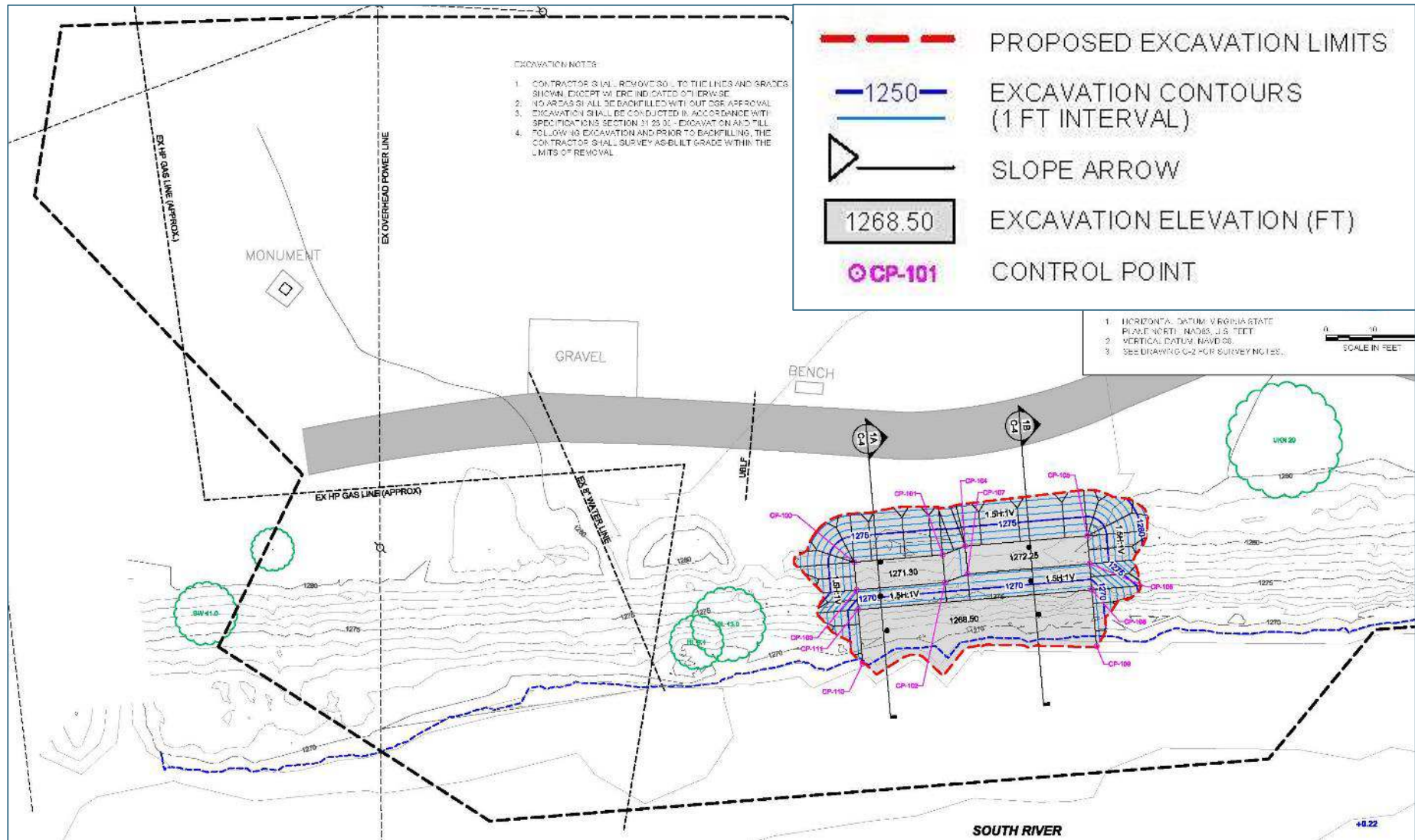
Constitution Park: Erosion/Sediment Control Plan



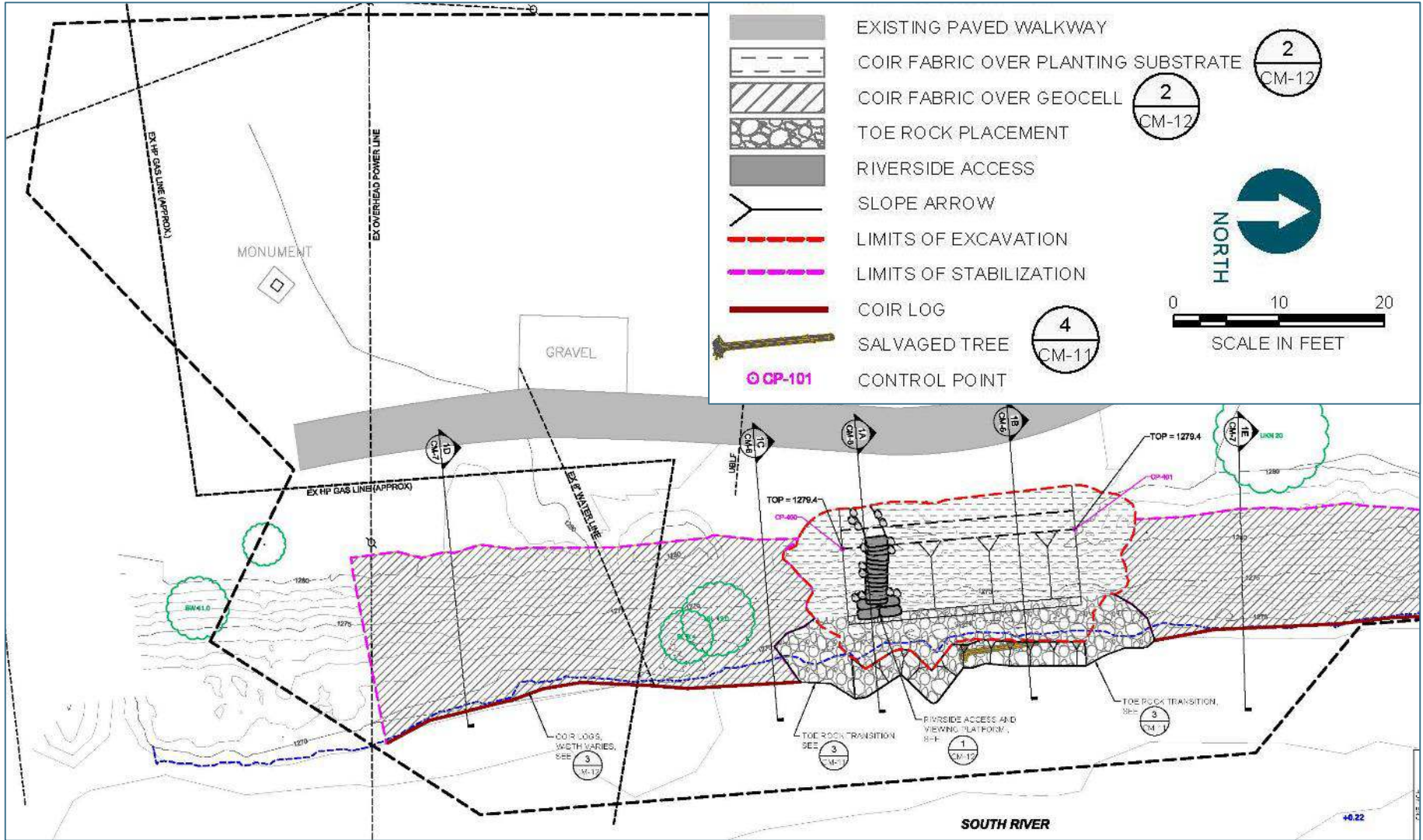
Constitution Park: Clearing Plan



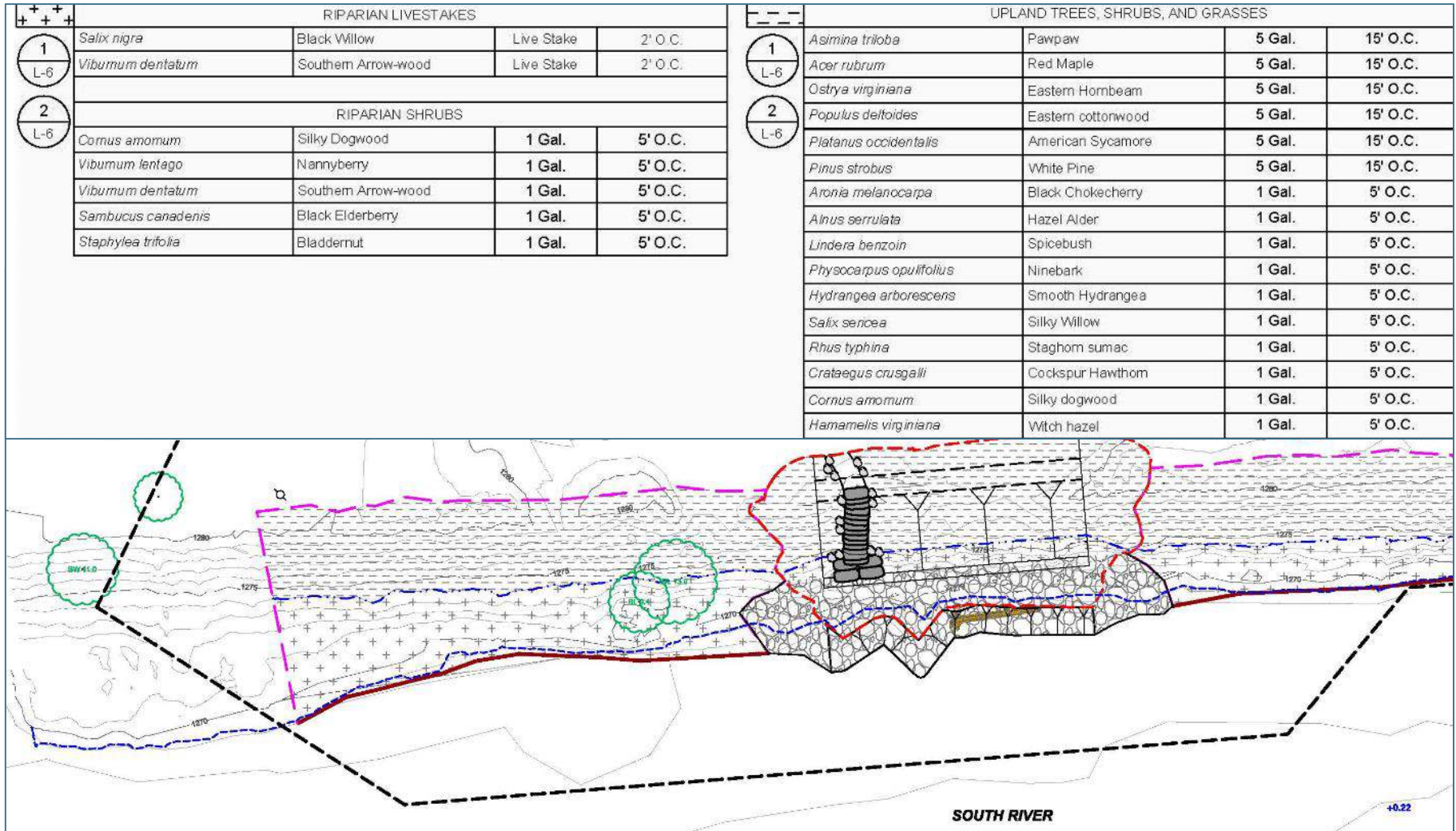
Constitution Park: Excavation Plan



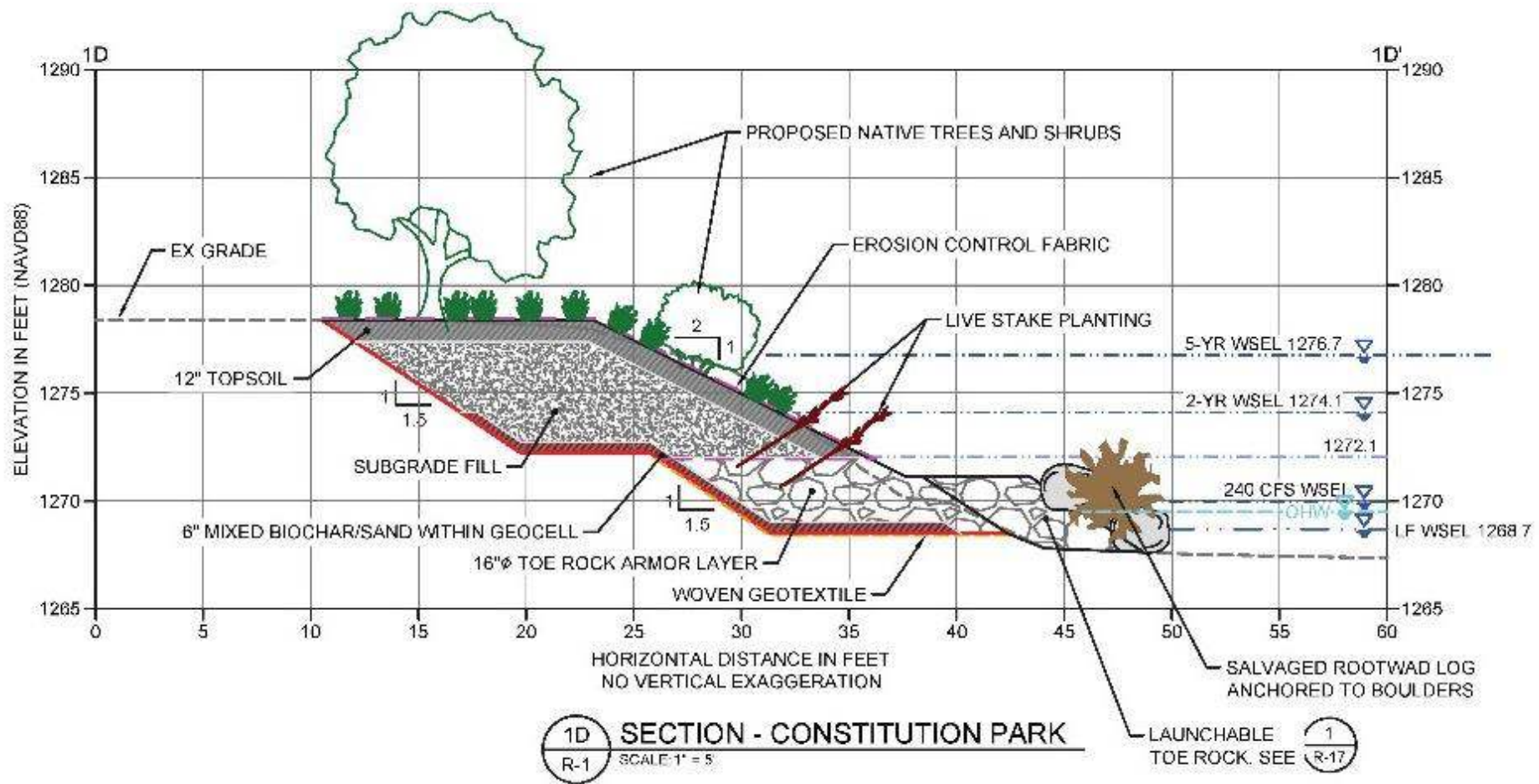
Constitution Park: Construction Materials Plan



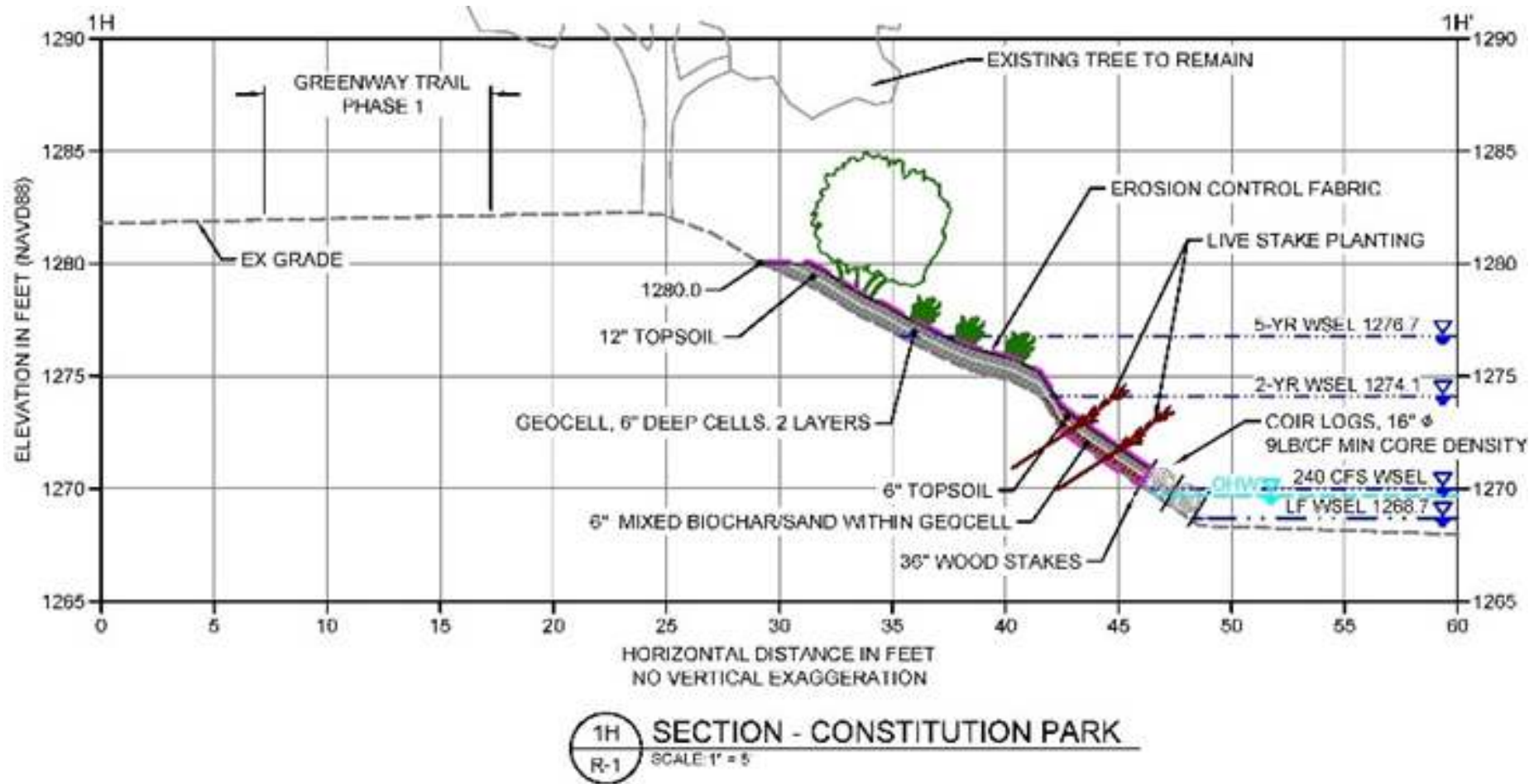
Constitution Park: Planting Plan



Constitution Park Primary BMA: Typical Post-Removal Restoration Section



Constitution Park Secondary BMA: Typical Vegetative Stabilization Section



Schedule and Next Steps

- July 2016 – received VDEQ comments on final design
- August 2016 – receive City comments on final design
- August/September 2016 – final VDEQ/City review and approval/permits received
- Fall 2016 – Constitution Park BMA bidding/construction
- Spring/summer 2017 – WWTP BMA bidding/construction

