

Tijeras Creek Watershed Restoration Project

NMED River Stewardship Program Project



Tijeras Creek Watershed Collaborative



Outline

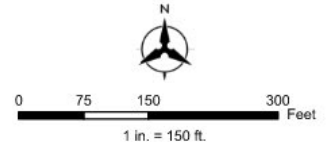
- Pre-project Conditions
- Project Objectives
- Analysis
- Design
- Construction



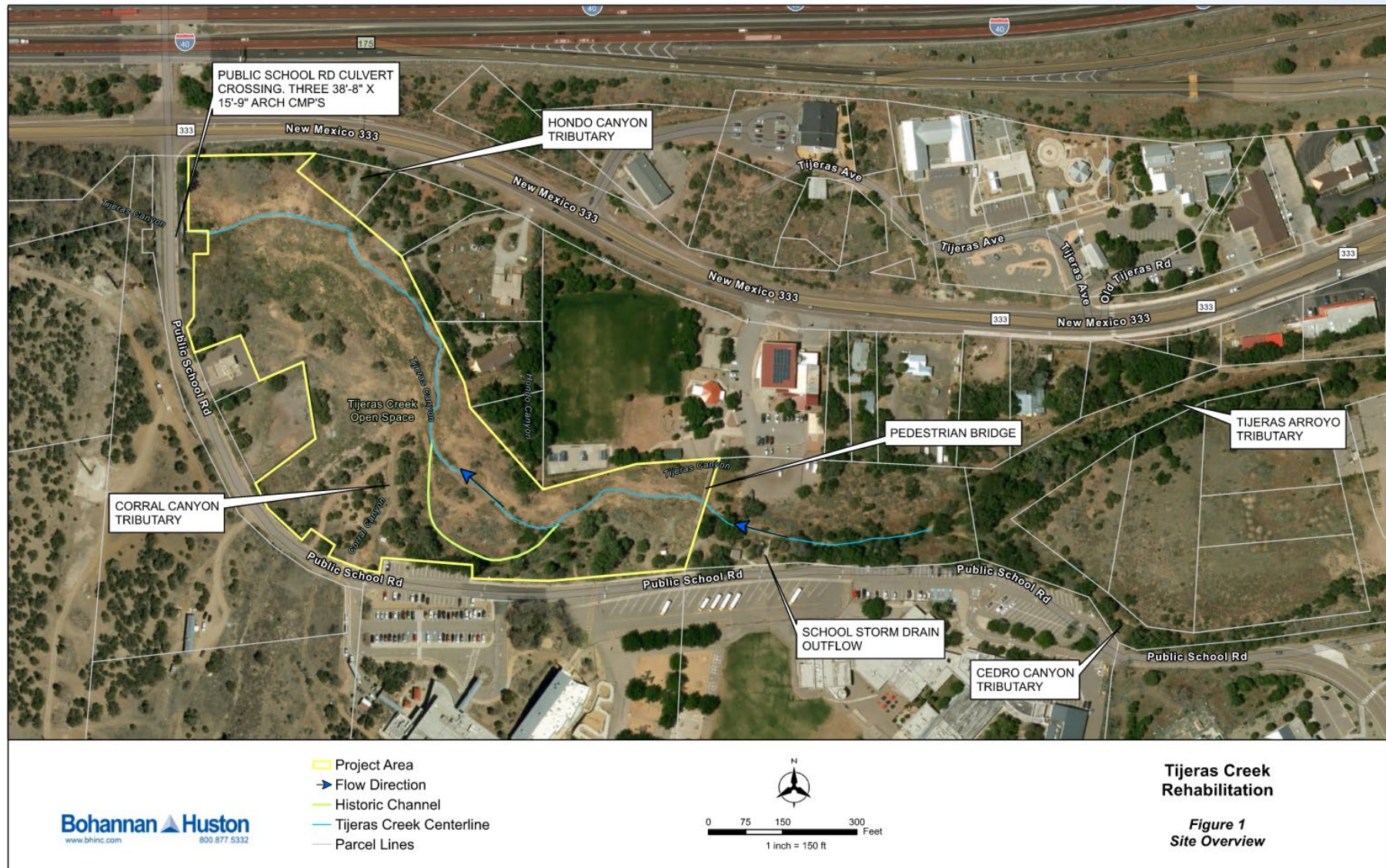
Bohannon & Huston
www.bhinc.com 800.877.5332

Project Area
Parcel Line

1.5yr Proposed Inundation
0 - 0.5 ft
0.5 - 2 ft
2 - 5 ft
5 - 8.3 ft



Pre-project Conditions



Pre-project Conditions

- Deteriorated riparian habitat
- Main channel
 - Incised due to watershed development
 - Hydrologically disconnected floodplain
 - Avulsed planform
- Invasive species issues
 - Siberian Elm
 - Cheat grass
 - Kochia



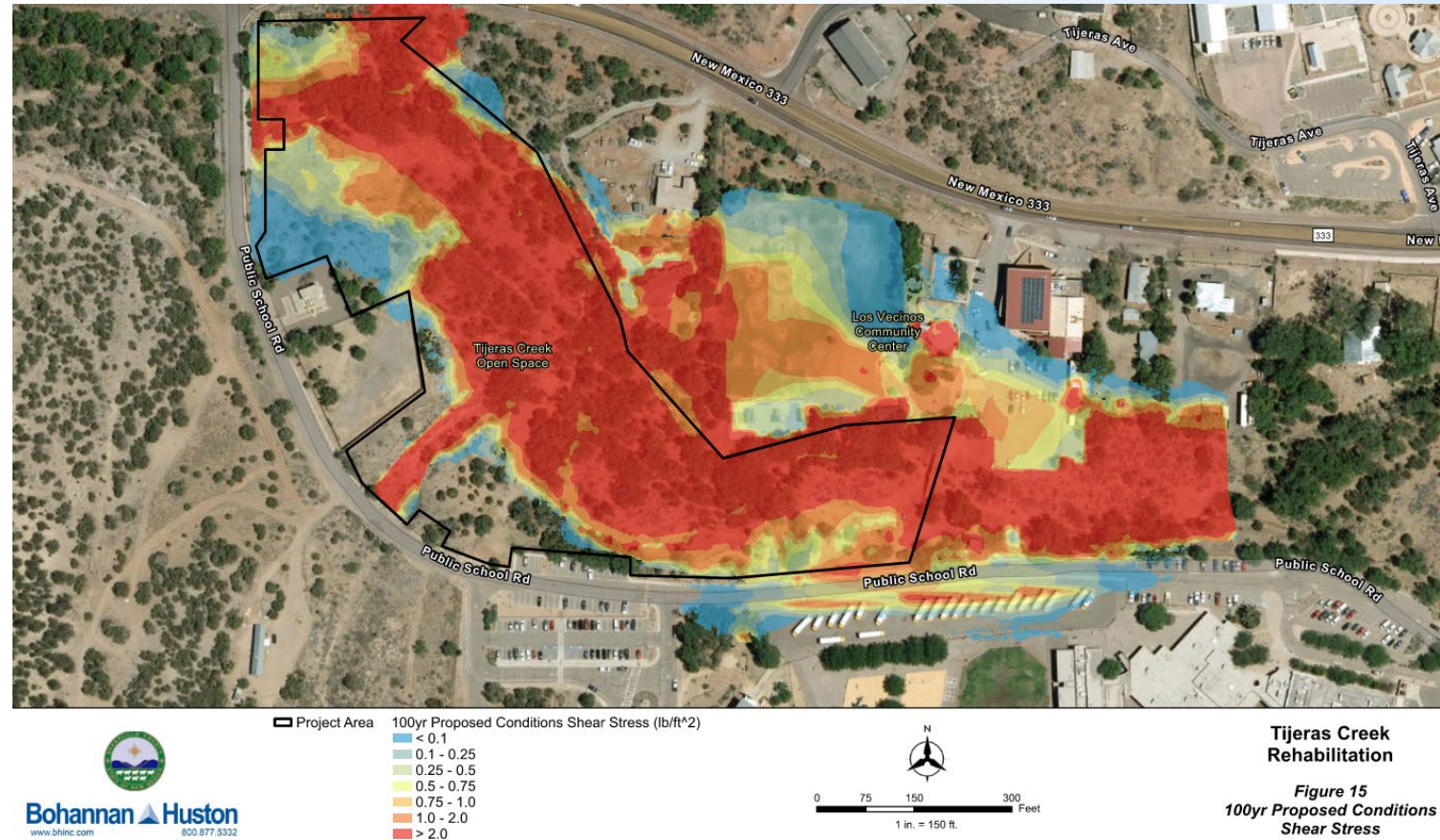
Design Objectives

- Invasive species removal
- Resiliency
- Bio-engineered stabilization
- FEMA floodplain considerations
- Sediment continuity



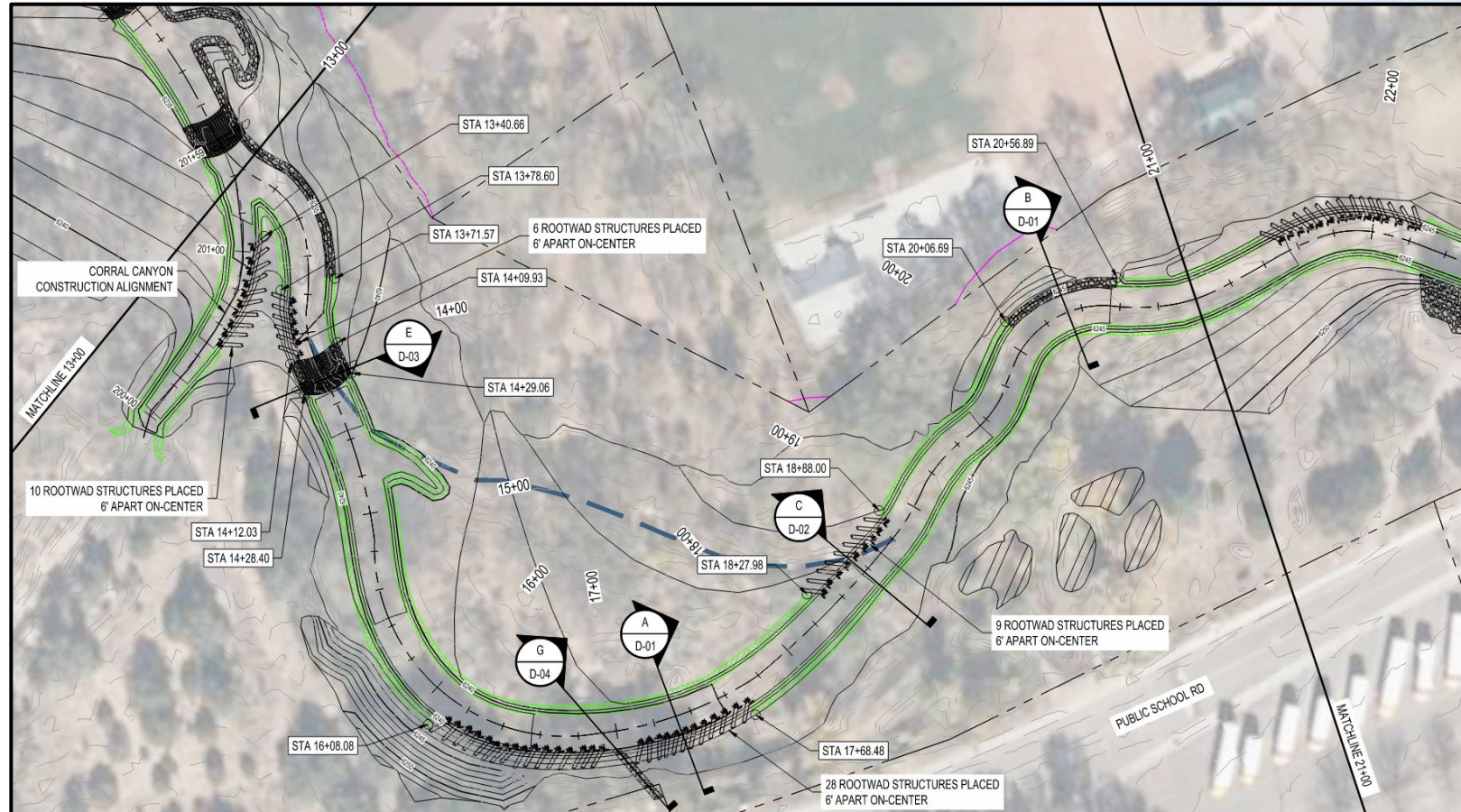
Analysis

- Geomorphic assessment
- Hydrologic modeling
- Hydraulic modeling
- Inundation mapping
- Scour calculations
- Equilibrium slope estimates
- Sediment-transport analysis



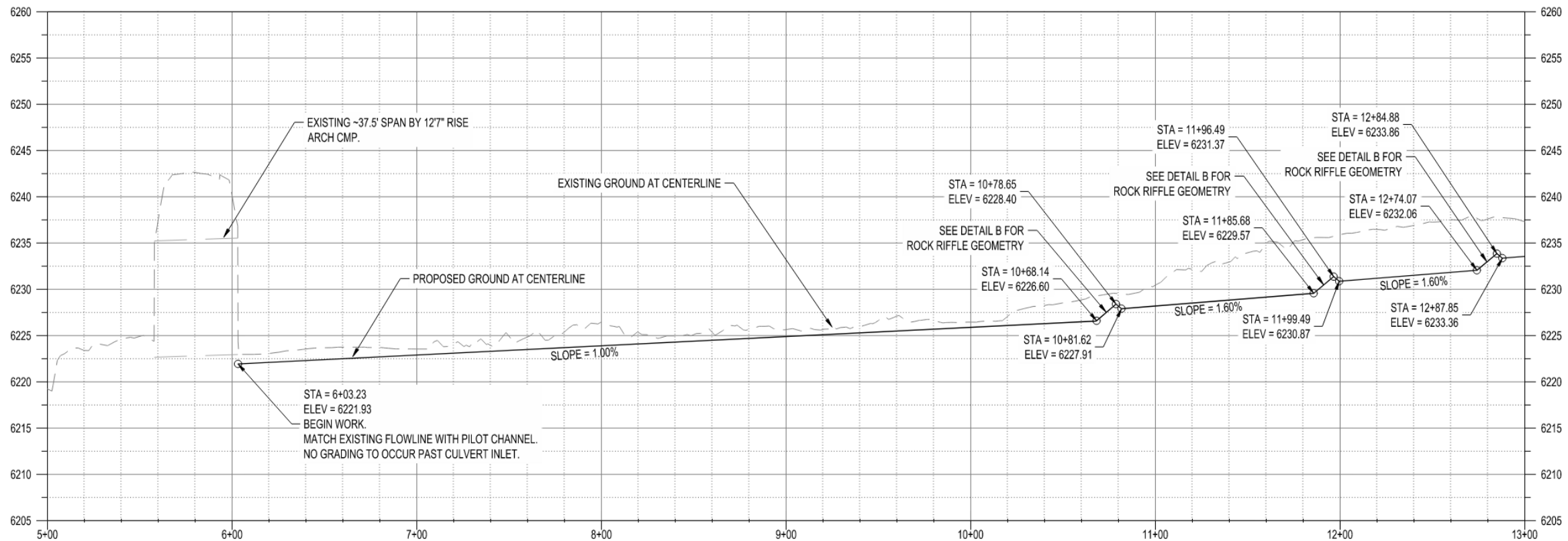
Design

- Channel planform



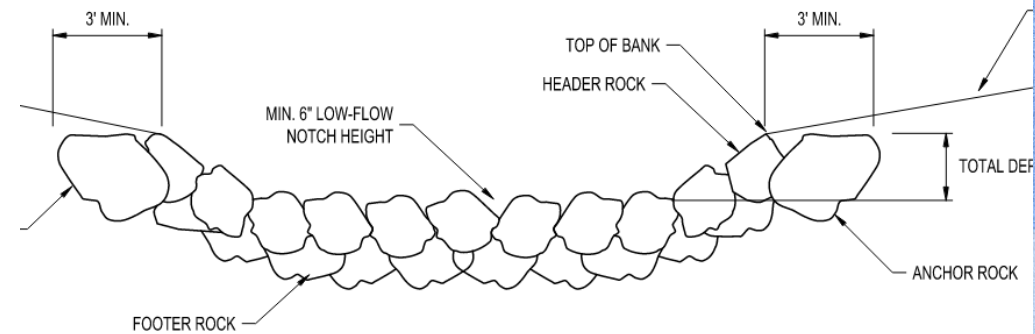
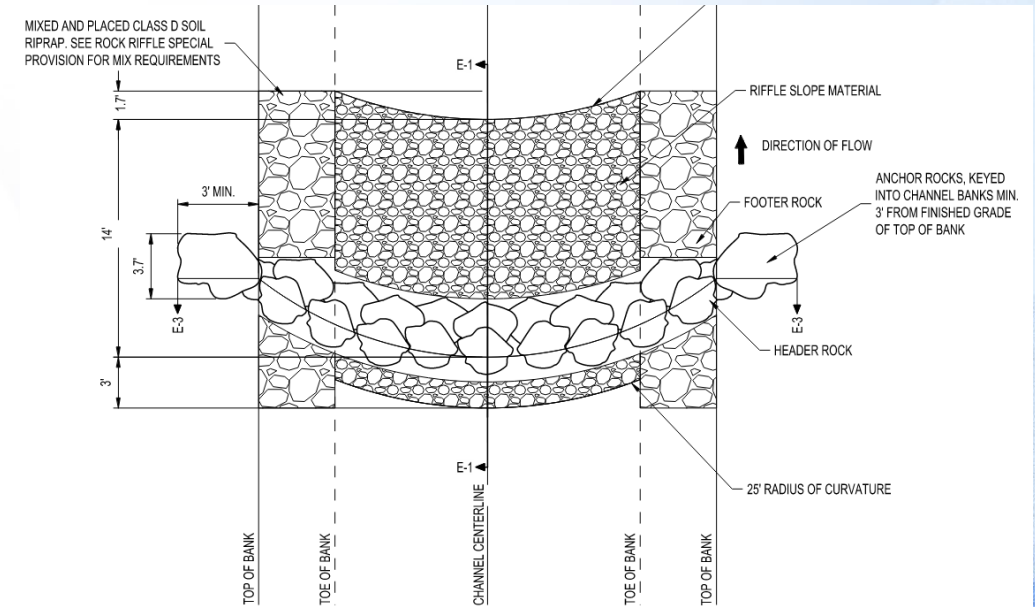
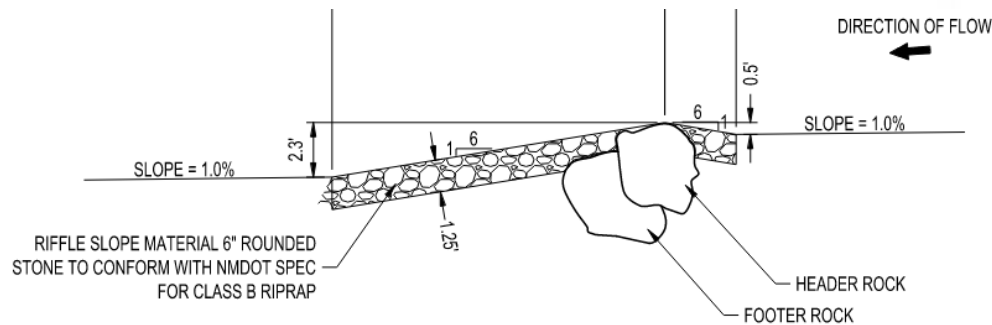
Design

- Channel planform
- Channel gradient



Design

- Channel planform
- Channel gradient
- Bio-engineered stabilization
- Grade control



Rootwad Structures



Rock Riffles



Void Filled Boulder Toe

