

LOWER ARROYO VENADA BANK STABILIZATION RIO RANCHO, NEW MEXICO, U.S.A.

Channelling Works

Problem

Arroyos and washes in desert regions are typically dry but become active drainageways after heavy rainstorms, posing a significant flood risk. To address this, the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA) took action to prevent future flooding and protect homes along the Lower Arroyo Venada in Rio Rancho, NM. This critical section, which empties into the Rio Grande east of Pat D'Arco Highway, was suffering from severe erosion, threatening nearby properties. SSCAFCA's design aimed to correct existing erosion issues while preventing future damage. Maccaferri's solutions, such as flexible, erosion-resistant Reno Mattresses and durable gabion baskets, provided the ideal fix. These systems stabilize the drainageway, control water flow during rainstorms, and protect the surrounding infrastructure from further damage. By implementing Maccaferri's long-lasting and sustainable erosion control solutions, SSCAFCA ensured that the local community would be safeguarded against future flood events. The combination of innovative engineering and Maccaferri's reliable products has not only mitigated the current erosion concerns but also strengthened the community's resilience to future storms, securing homes and enhancing overall safety.

Solution

The Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA) implemented a flood control project to address erosion and protect local infrastructure. The design featured a concrete low-flow channel, reinforced with 1-foot thick galvanized gabion mattress units on both sides to ensure long-term stability. Additionally, gabion baskets were installed along critical sections to prevent erosion of the access road leading into the channel. Construction began in early 2023 and was substantially completed by November 2023, with a total project cost of approximately \$2.8M.

Client: SOUTHERN SANDOVAL COUNTY ARROYO FLOOD CONTROL AUTHORITY

Designer / Consultant: SSCAFCA

Contractor: PATE CONSTRUCTION

Products used (Qty.)

- Gabions 9,712SY

Date of construction: 03/2023 - 11/2023

[Google Maps](#)

[Google Earth](#)



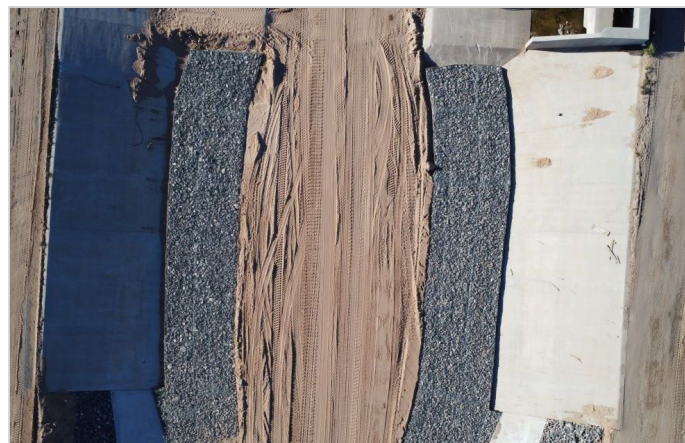
Pre-Existing Site Conditions



Lower Bank Stabilization



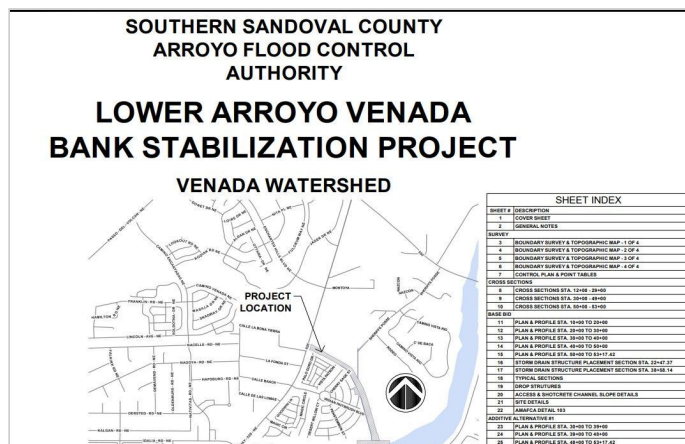
Looking West



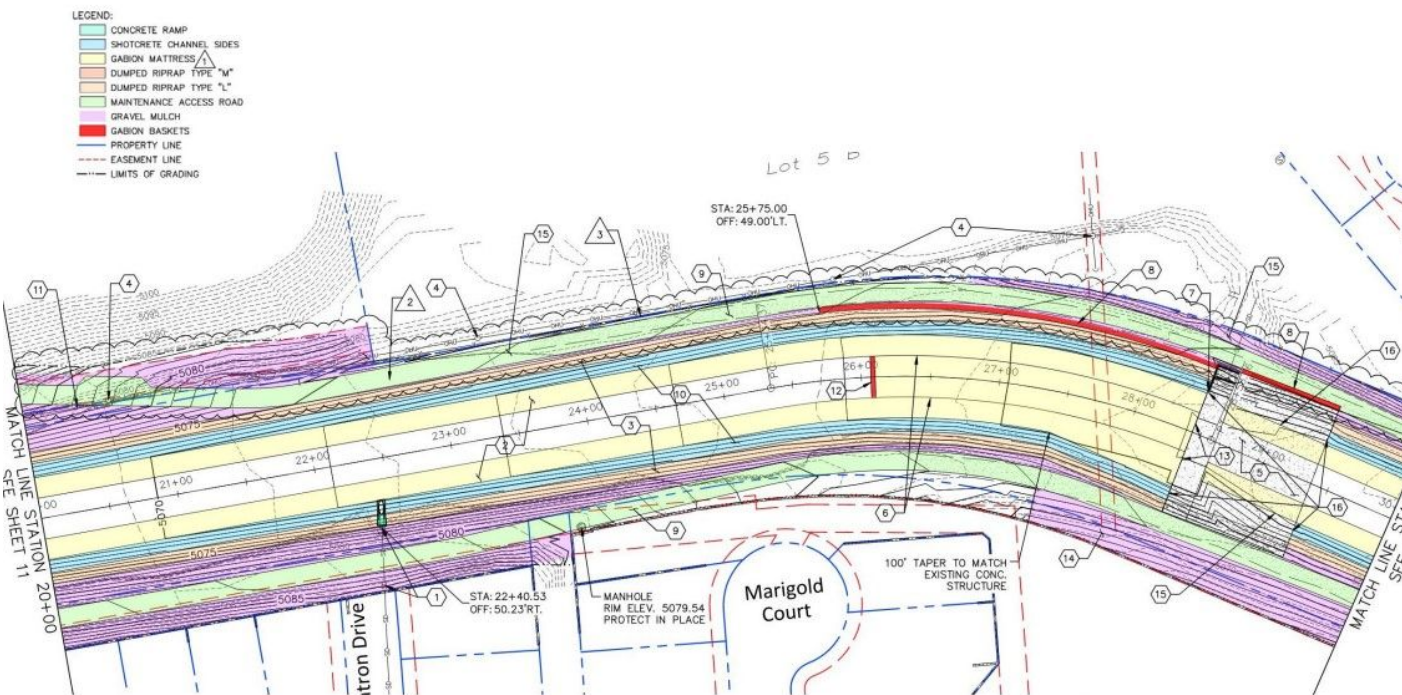
Overhead View



During Construction



Project Plans Coversheet



Plans Overview

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