Huff's Corner Raise and Channel Reconfiguration Project Description

General Background

The section of Cache Creek known as "Huff's Corner" is a small reach on the right bank extending approximately 2,700-feet upstream from Interstate 5 (I-5), north of Woodland, in unincorporated Yolo County. The levee at Huff's Corner was initially constructed by the U.S. Army Corps of Engineers (USACE), although the precise date of construction is unknown. Topographic maps suggest this segment of the levee was constructed by 1951, although previous site records indicate it was constructed as early as 1938.

In October 2012, Yolo County, through the Central Valley Flood Protection Board (CVFPB), initiated the process of forming a Maintenance Area. The Maintenance Area was not formed due to the initial cost of completing the deferred maintenance required for the formation of a Maintenance Area was prohibitive to Yolo County and local landowners. In early 2018, Yolo County initiated engineering recommendations to determine what would be required to catch up on the deferred maintenance.

In addition to the deferred maintenance, two major improvement projects were identified: (1) a raise of the entire reach of levee to restore it to original design height; and (2) a channel reconfiguration to control erosion and remove excess sedimentation. These components are collectively referred to as the Huff's Corner Levee Raise and Channel Reconfiguration Project (Project).

Yolo County is the Lead Agency for this Project as defined by the CEQA, and the California Department of Water Resources (DWR) is a Responsible Agency as also defined by CEQA. Yolo County determined that the appropriate CEQA disclosure documentation for the Project is an Initial Study/Mitigated Negative Declaration.

Project Description

The Project was developed by Yolo County and is funded through a cost-share grant administered by the DWR via their Flood System Repair Program (FSRP) – Contract Number 460013693. While the majority of costs to design and construct the Project are funded by FSRP, Yolo County provides a significant share of costs in the form of direct expenditures and in-kind services with multiple Yolo County Staff.

There are two distinct components of this Project. The first is the levee "raise," which is more accurately described as a restoration action to return the levee to the original design height. The second component is the Cache Creek channel reconfiguration. Both components are fully analyzed and discussed in greater detail in this IS/MND.

Levee Restoration

USACE Periodic Inspection Reports identify the entire 2,700-foot reach as being freeboard deficient (i.e., below the design height). The Project will raise the entire reach approximately 4.0 to 6.0 feet to meet the 1957 design profile, which includes 3-feet of freeboard (levee that is not under water during a particular water level to which it is designed). County Road 18 is located on the levee crown over

the western 1,100-feet of the proposed levee raise; the Project includes removal and replacement of the affected section of County Road 18.

To accomplish this required elevation, the design includes widening the base of the levee on the land side by approximately 12 to 15 feet and will include a revised Operations & Maintenance (O&M) Easement corridor extending an additional 15 feet beyond the new land side toe of the levee.

Furthermore, the portion of the levee that extends northward from the hairpin turn of County Road 18 to I-5 will be completely degraded down to level earth and a new levee will be built in the same location.

Channel Reconfiguration

The right bank of Cache Creek at Huff's Corner has approximately 100 linear feet of near-vertical bank, 30 to 50 feet high, which is undercut into the levee slope. The Project will repair this erosion site and is designed to address the root cause of the problem, namely an abrupt, near 90-degree bend of Cache Creek at the site of the worst erosion, before reaching the I-5 bridge. Significant point bar deposition has occurred on the inside edge of the bend opposite the eroded scarp. A vegetated island is also in the channel at this location.

The point bar and mid-channel island both have the effect of constraining the river flow, thereby increasing erosive potential, and pushing that highly erosive flow up against the eroding scarp and threatening to erode a bank stabilization project implemented in 2009. The Project will address these issues with a three-pronged approach.

First, sediment will be removed and off-hauled from the left-side secondary channel. Second, some of the vegetation currently stabilizing the mid-channel island will be removed. Finally, a sacrificial terrace will be constructed along the right bank which will serve to reduce flow velocity against the bank and direct flow more towards the center of the channel.

Project Details

Both components of this Project will be constructed concurrently in 2022. The Project may also initiate some pre-construction activities such as tree removal, vegetation removal, general site preparation, and utility relocations in advance of major construction with proper approvals and permissions in place.

The following is a general list of features needed to complete this Project and the anticipated schedule for each.

- Feature 1: Geotechnical Exploration – June 2021
- Feature 2: Design – Complete
- Feature 3: Permitting – Underway and anticipated completion by February 2022
- Feature 4: Real Estate and Right-of-Way – Underway
- Feature 5: Construction Management – Will be performed during all construction activities

- Feature 6: Construction – May to September 2022
- Feature 7: Environmental Mitigation – Underway and anticipated completion by February 2022
- Feature 8: Final Inspection and Completion Report – January 2023

Major construction activities for the levee raise include: clearing, grubbing, and stripping of the widened levee footprint; degradation of the existing levee (based on the geotechnical exploration findings); construction of approximately 2,700 linear feet of reconfigured levee; restoration of the final levee embankment and staging/lay down areas; establishing erosion control vegetation on the embankment slopes and toe access corridors as appropriate; replacement of County Road 18, including signage and road markings; and installation/replacement of gates, fences, and other similar features.

Major construction activities for the erosion control/channel reconfiguration include: excavation and export of sediment material excavated from within the channel, removal and export of vegetation, installing deterrents for motorized vehicle access, and import of boulders and placement of boulder structures along the right bank.

Construction Management

Yolo County and its engineering consultant will perform necessary field construction management. This will include: ensuring the completion of environmental permitting; monitoring contractor performance in compliance with plans and specifications; coordinating with DWR, other regulatory agencies, and stakeholders; and ensuring appropriate environmental monitoring during construction.

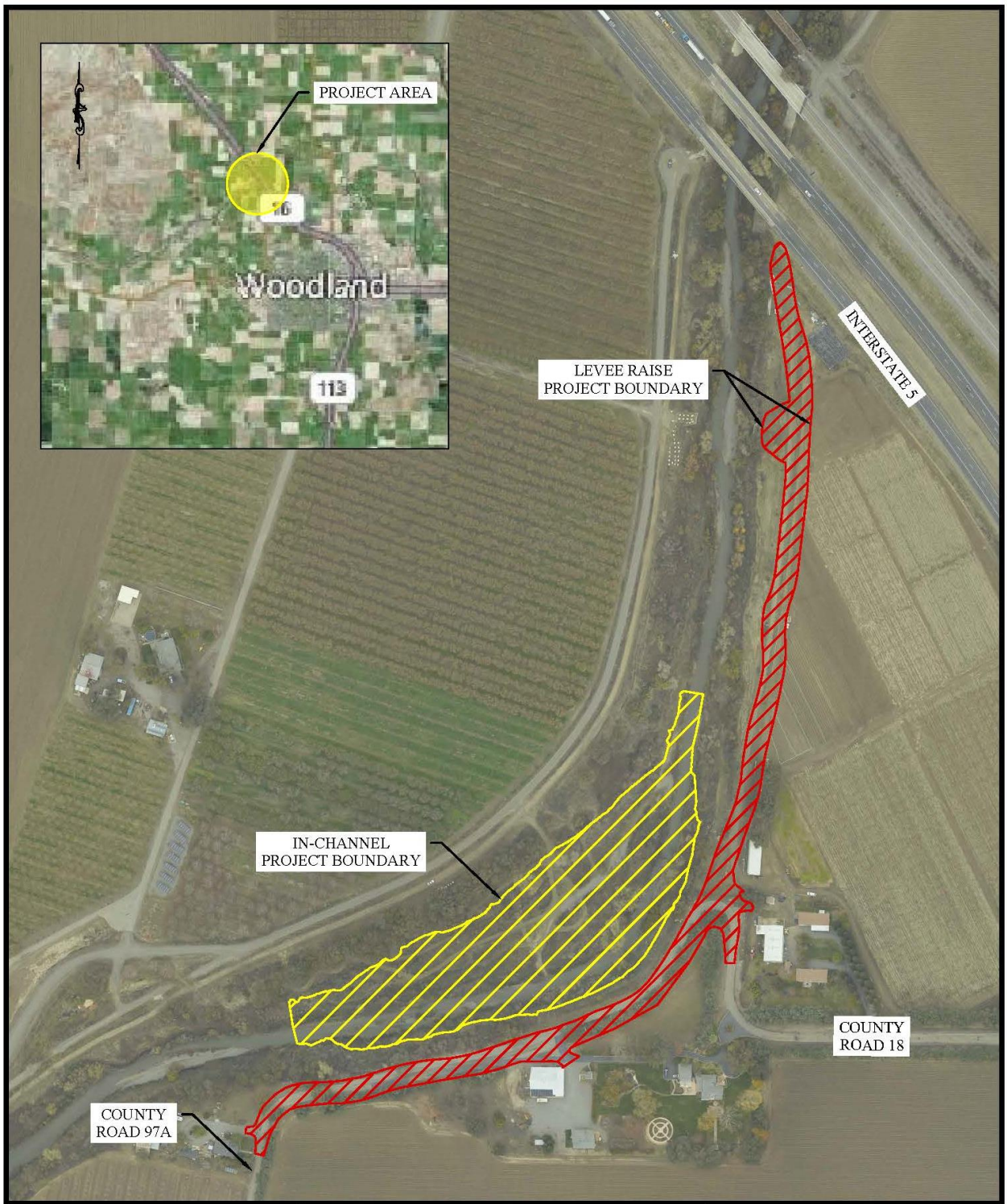
Real Estate

Yolo County will perform necessary real estate activities, including, but not limited to: environmental site assessments, real estate assessments and appraisals, property acquisition negotiations, and negotiation of temporary and/or long-term easements as necessary to complete site repairs. The Project will require permanent real estate acquisition to complete the levee component, and temporary construction easements or right of way access for staging areas during the whole construction phase.

Environmental Permitting

Yolo County will be responsible for obtaining environmental, regulatory permits and discussed in greater detail within the applicable Resource Sections of the prepared Initial Study / Mitigated Negative Declaration:

https://www.yolocounty.org/home/showdocument?id=69304



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HUFF'S CORNER LEVEE RAISE & CHANNEL RECONFIGURATION PROJECT

FIGURE 2-1 - PLAN VIEW OVERALL PROJECT

SCALE:	1" = 300'
JOB NUMBER:	5327-5.3.1
DRAWN BY:	MC
DATE:	4/26/2021
SHEET:	N/A

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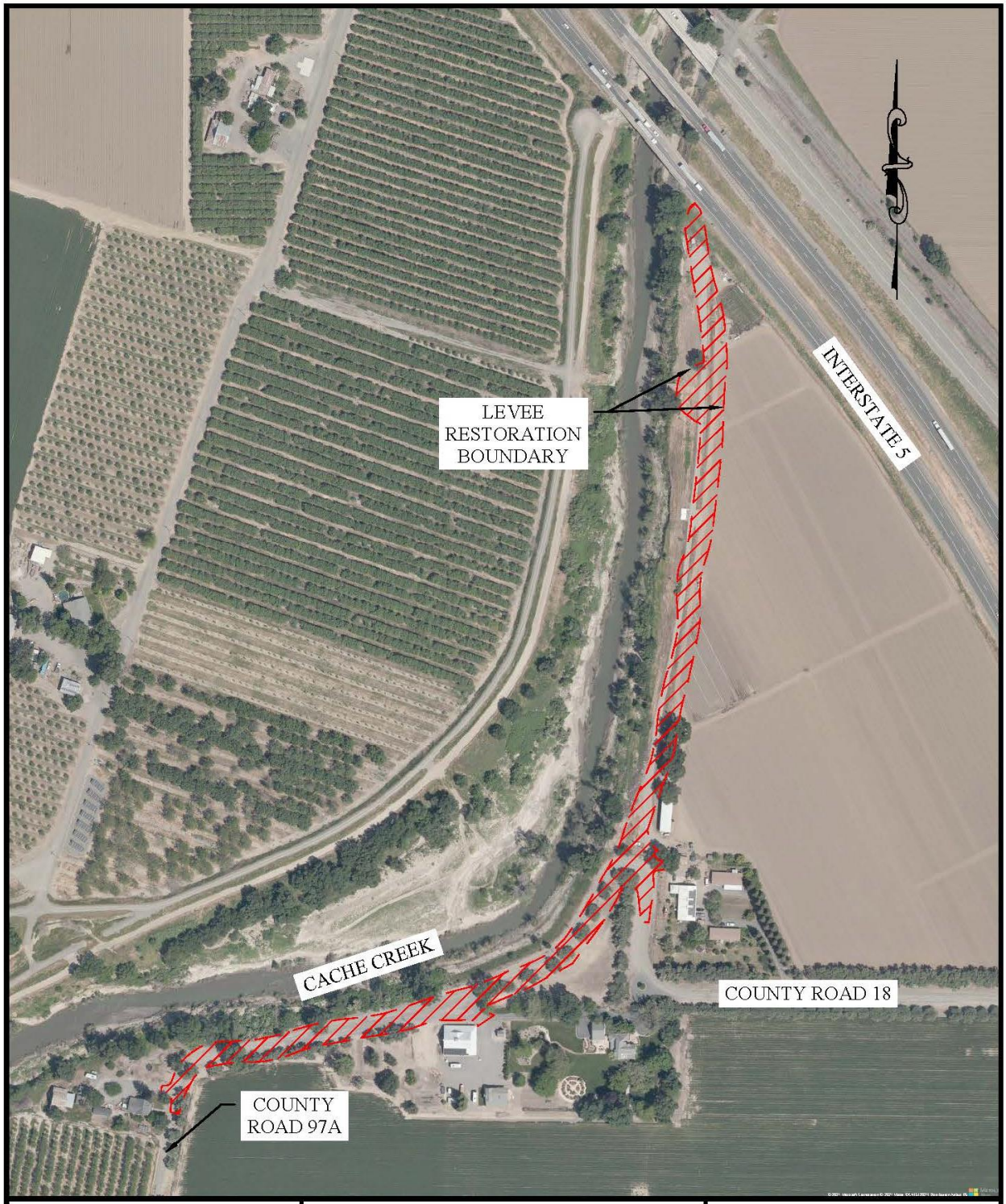

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HUFF'S CORNER LEVEE RAISE & CHANNEL RECONFIGURATION PROJECT

FIGURE 2-2 - PLAN VIEW
LEVEE COMPONENT

SCALE:	1" = 300'
JOB NUMBER:	5327-5.3.1
DRAWN BY:	MC
DATE:	4/26/2021
SHEET:	N/A

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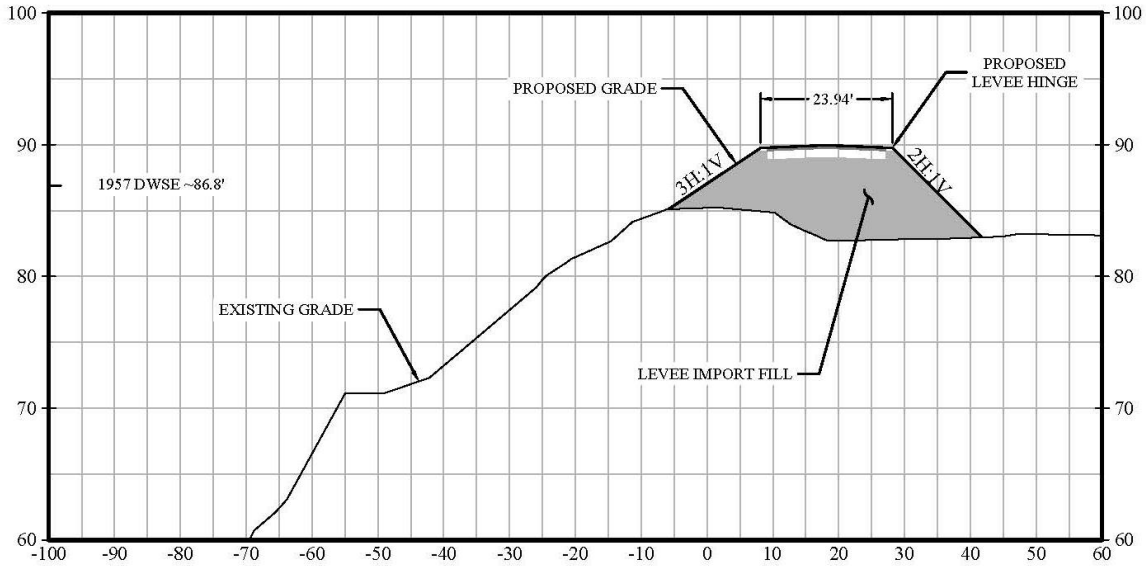
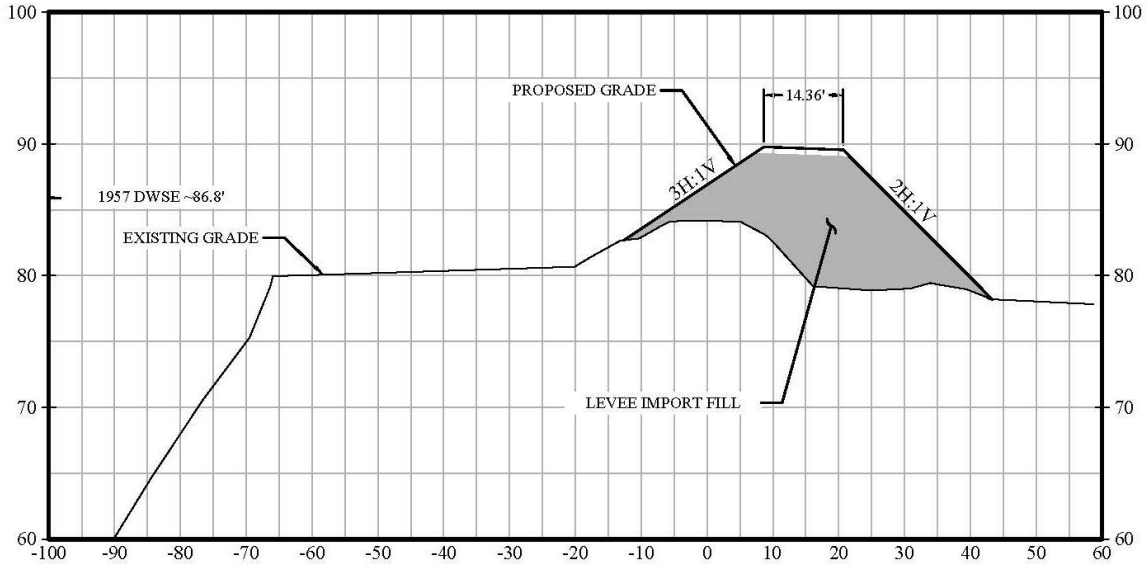


TYPICAL SECTION - STA. 0+00 - 12+00



TYPICAL SECTION - STA. 12+00 - 27+50

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HUFF'S CORNER LEVEE RAISE & CHANNEL RECONFIGURATION PROJECT

FIGURE 2-3 - TYPICAL SECTIONS LEVEE COMPONENT

SCALE:	1" = 30'
JOB NUMBER:	5327-5.3.1
DRAWN BY:	MC
DATE:	4/26/2021
SHEET:	N/A

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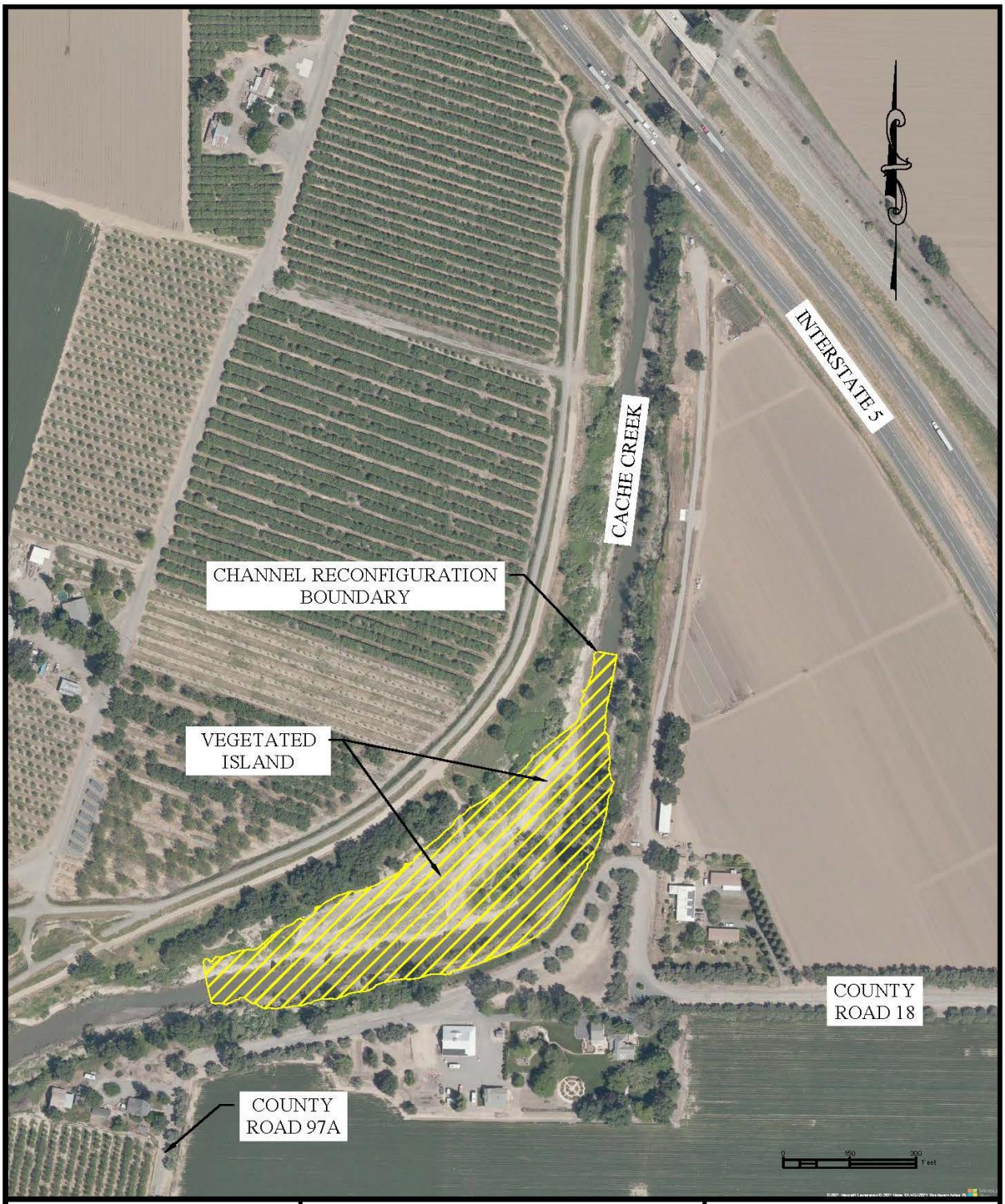

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HUFF'S CORNER LEVEE RAISE & CHANNEL RECONFIGURATION PROJECT

FIGURE 2-4 - PLAN VIEW IN-CHANNEL COMPONENT

SCALE:	1" = 300'
JOB NUMBER:	5327-5.3.1
DRAWN BY:	MC
DATE:	4/26/2021
SHEET:	N/A

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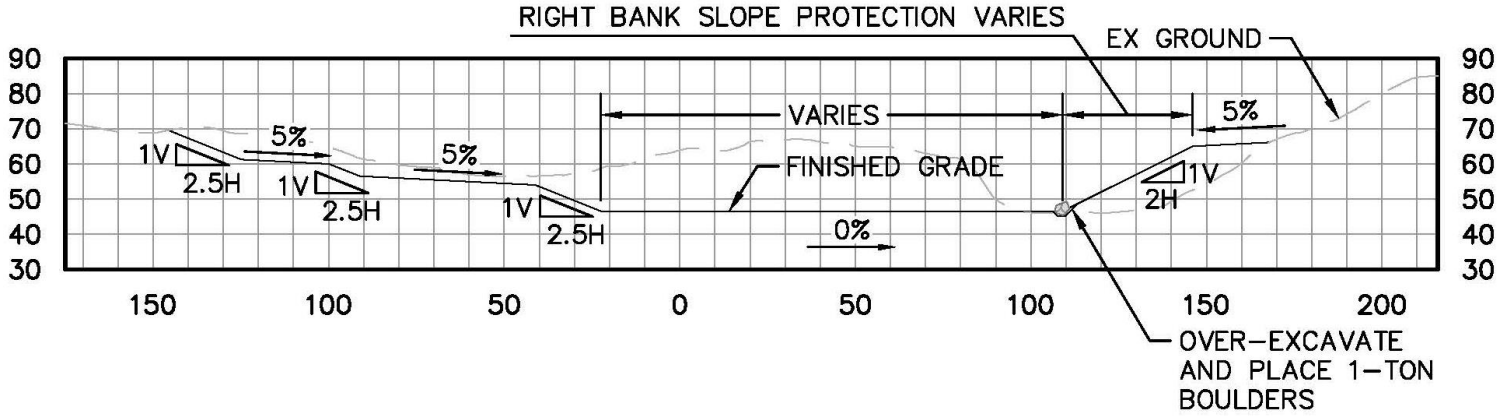

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HUFF'S CORNER LEVEE RAISE &
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FIGURE 2-5 - TYPICAL SECTIONS
IN-CHANNEL COMPONENT

SCALE:	N.T.S.
JOB NUMBER:	5327-5.3.1
DRAWN BY:	MC
DATE:	4/26/2021
SHEET:	----------

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