



A Tradition of Stewardship
A Commitment to Service

Planning, Building & Environmental Services

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David Morrison
Director

MEMORANDUM

To: Wynpress Balcher Planner II Planning Division	From: Patrick C. Ryan Assistant Engineer Engineering Division
Date: June 23, 2014	Re: Permit No. P13-00167 LMR Rutherford Winery Engineering Estimates APN: 030-100-016-000

The County of Napa Planning, Building, and Environmental Services Department (PBES), Engineering Division has been assigned the task of determining 100-year Base Flood Elevations (BFE) and estimated earthwork fill for the three proposed sites for the new LMR Rutherford Winery. The first site is located 160-feet offset from the centerline of St. Helena Highway / Highway 29 (HWY29), the second is 380-feet offset from centerline of HWY29, and the third is located 600-feet offset of HWY29. The latter is located within a mapped FEMA Special Flood Hazard Area (SFHA) Floodplain Zone AE. The former (160-foot and 380-foot offset from centerline of HWY29) is located within an unmapped SFHA Floodplain Zone A.

A BFE was determined using FEMA Simplified Method-Contour Interpolation for the proposed areas within the unmapped FEMA SHFA, and a BFE was determined in the mapped SFHA by using the Napa River Flood Insurance Study river reach profile. Earthwork fill quantities were estimated by taking two cross-sections through the proposed sites, summing the estimated fill through the two cross-sections then taking the product of the sum of earthwork to the length of proposed pad perpendicular to the sections.

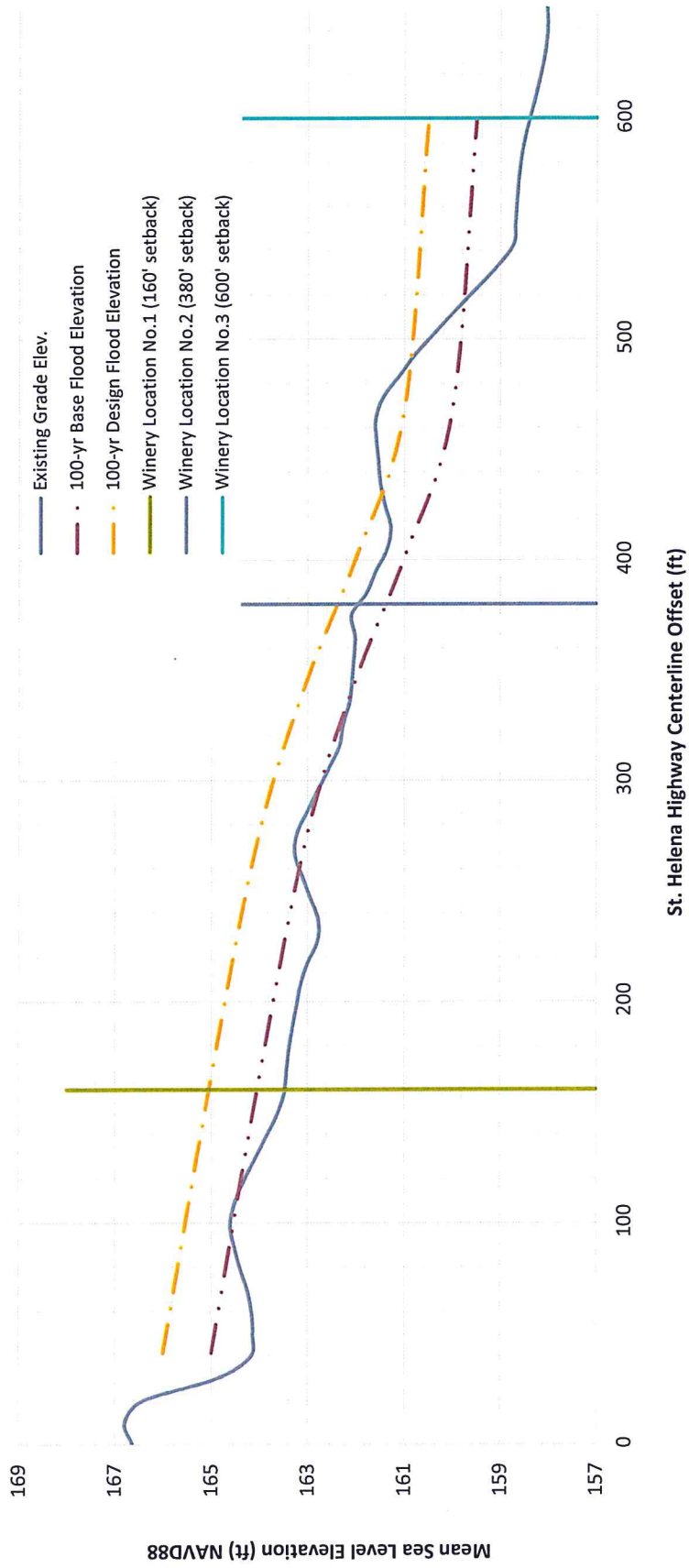
It shall be acknowledged that the earthwork quantities estimated through the process outlined above does not take into account soil consolidation and compaction. All sections and profiles were developed using the County of Napa's LiDAR Digital Terrain Model (DTM) data acquired in May of 2003, in the North American Vertical Datum 1988 (NAVD88).

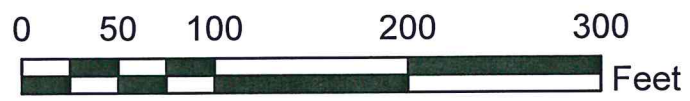
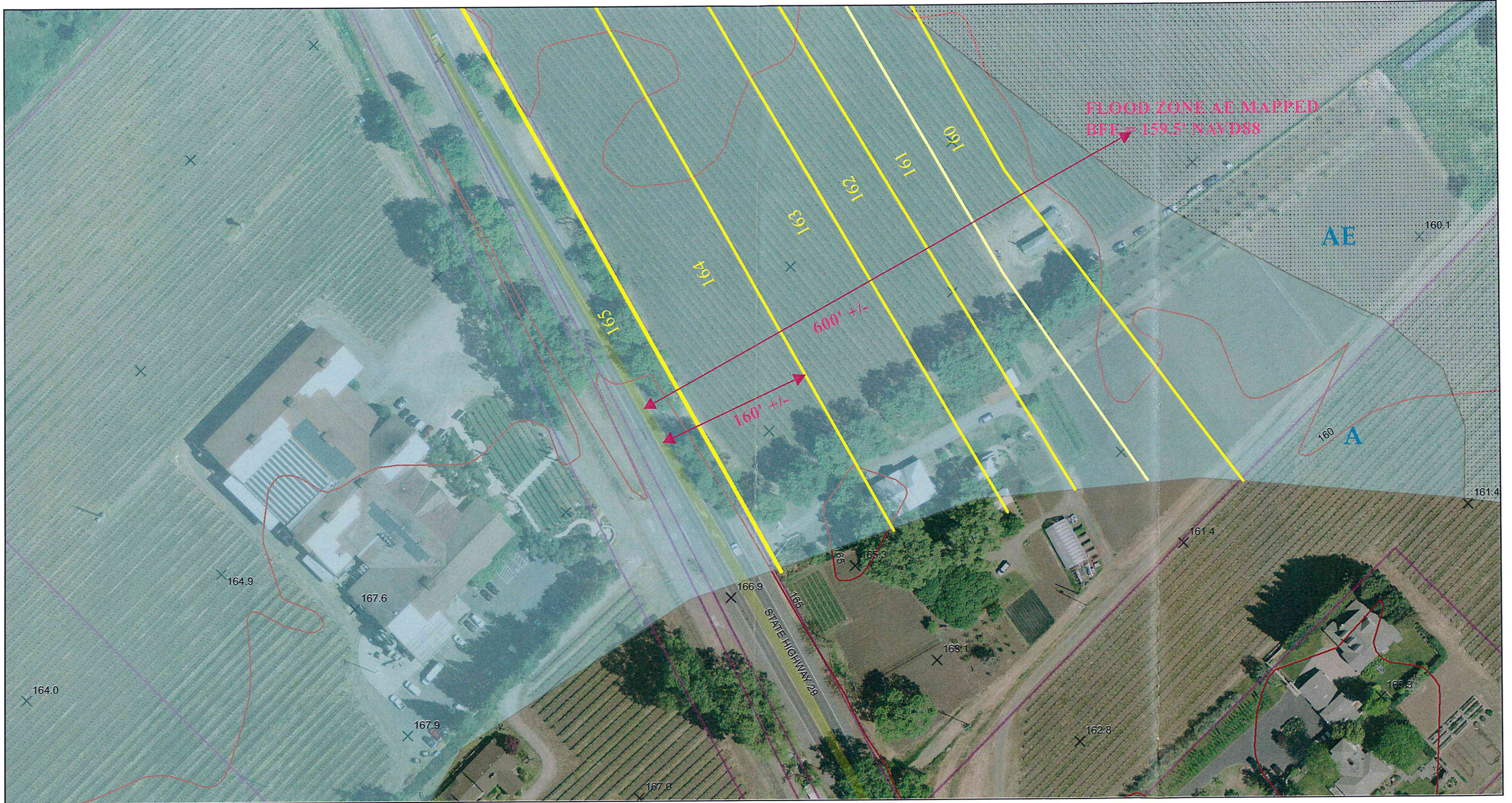
The following are the Base Flood Elevations, Design Flood Elevation, and estimated earthwork fill to construct a pad to the Design Flood Elevation for the three proposed winery sites:

Winery Location (offset from centerline of Hwy29)	Existing Grade (MSL (NAVD88))	Base Flood Elevation (MSL NAVD88)	Design Flood Elevation (MSL NAVD88)	Estimated Earthwork Fill Quantity (cy)	Average Fill Height (ft.)
160 ft. offset	163.5	164.0	165.0	3,920	3.5'
380 ft. offset	162.0	161.4	162.4	1,215	1.4'
600 ft. offset	158.4	159.5	160.5	5,170	2.7'

The information provided above is based on the best available data and shall only be used for reference. The Base Flood Elevation determined by the Simplified Method-Contour Interpolation may not be used by the community or the developer to complete an Elevation Certificate used for flood insurance rating. A Detail Methodology shall be used for SFHA Zone A for completing the Elevation Certificate for flood insurance rating. In addition the earthwork estimates does not take into consideration the amount of earthwork for the sides of the pad or the driveway.

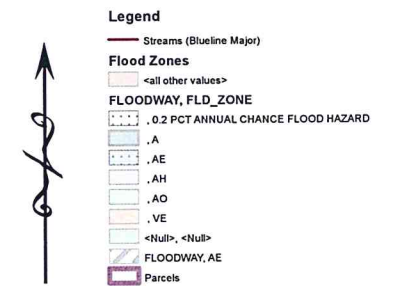
LMR Rutherford 100-yr Flood plain Elevation





1:1,200

**LMR Rutherford Estate Winery
FEMA Base Flood Determination
(3) Alternative Winery Locations
APN: 030-100-017**



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