



May 31, 2024

Job No. 16-128

Kim Withrow, REHS  
Environmental Health Division  
Napa County Planning, Building and Environmental Services Department  
1195 Third Street, Suite 210  
Napa, CA 94559

Re: Onsite Wastewater Disposal Feasibility Study for the  
Eisele Vineyard Winery Use Permit Modification Application  
2155 Pickett Road, Calistoga, California Napa County APN 020-340-030

Dear Ms. Withrow:

At the request of Eisele Vineyard, we have evaluated the process and sanitary wastewater flows associated with the proposed Use Permit Modification. We have also analyzed the capacity of the existing process and sanitary wastewater systems serving the winery facility to determine if they are adequate to serve the proposed changes in use.

## Introduction

The Use Permit Modification application under consideration proposes the following characteristics:

- Wine Production:
  - o 30,000 gallons of wine per year (increase from 20,000)
  - o Crushing, fermenting, aging and bottling
- Employees:
  - o 12 full-time employees (no change)
  - o 2 part-time employees (no change)
- Marketing Plan:
  - o Daily Tours and Tastings by Appointment (no change)
    - 18 visitors per day maximum

- o Private Marketing Events – Type 1 (no change)
  - 24 guests maximum
  - 12 events per year, no more than 4 per month
  - Food prepared offsite by catering company,
- o Private Marketing Events – Type 2 (no change)
  - 80 guests maximum
  - 2 events per year
  - Food prepared offsite by catering company
  - Portable toilets used for all events with more than 24 guests
- o Private Marketing Events – Type 3 (no change)
  - 125 guests maximum
  - 1 event per year
  - Food prepared offsite by catering company
  - Portable toilets used for all events with more than 24 guests

Existing improvements on the property include the existing winery facility, residential and agricultural buildings, vineyards, caves and the related access and utility infrastructure. A new production building is proposed as part of the Use Permit Modification. Please see the Eisele Vineyard Winery Use Permit Modification Conceptual Site Improvement Plans by Applied Civil Engineering for approximate locations of existing and proposed facilities.

The remainder of this letter describes the existing process and sanitary wastewater disposal systems, their design capacity, peak flows associated with the proposed changes in use and our analysis and recommendations related to the system's capability to handle the anticipated wastewater flows.

### **Existing Wastewater Systems**

The winery facility is served by existing and separate process and sanitary wastewater disposal systems. The systems were originally designed by Summit Engineering in 1991 and completed in 1992. Since this time, there have been a few modifications to the volume of sanitary wastewater flow to the existing system due to changes to the number of employees and the winery marketing plan, as documented by Use Permit Modifications.

Use Permit Modification P12-00412, was approved in July 2013 and contains the most current information on the existing wastewater systems. Permit P12-00412 proposed a small increase to the marketing plan and thus an increase to the sanitary wastewater flow. Bartelt Engineering prepared a Feasibility Letter, dated June 2013, describing the status of the system at that time and ability of it to handle the proposed increase of sanitary wastewater flow. In 2011, McCollum Engineering performed an inspection of both the existing process and sanitary wastewater systems, which Bartelt Engineering used in their Feasibility Letter, dated June 2013.

According to Bartelt Engineering's Feasibility Letter, there are three existing conventional leach fields, Upper Field A, Lower Field B, and Sanitary Field. Upper Field A and Lower Field B were designed for process waste only, collected first into two tanks located near the winery building

and cave portal. A sump was added to this system in 2006 and pumps process wastewater from the winery building to the existing tanks. The Sanitary Field was designed for sanitary waste only, collected in a single tank from the winery building, the winery office and the building previously called the caretaker's cottage. (This building has since been converted to an existing vineyard break room and serves vineyard employees.)

The exact capacity in gallons per day that the process and the sanitary wastewater disposal fields were designed for is undetermined, based on our review of permit records. Bartelt Engineering reverse engineered each system's capacity based on the inspection report prepared by McCollum Engineering, a site evaluation from 1990 and the trench design prepared by Summit Engineering in 1991. They determined that one linear foot of leach line is needed to dispose of 2.33 gallons of wastewater, thus:

- Upper Field A has 355 linear feet of leach line for a capacity of 827.5 gallons per day
- Lower Field B has 412 linear feet of leach line for a capacity of 960.3 gallons per day
  - Process wastewater total capacity is 1,787.8 gallons per day
- Sanitary Field has 373 linear feet of leach line for a capacity of 869.5 gallons per day

Bartelt Engineering's Feasibility Letter noted that modifications to the existing systems, namely combining the Lower Field B with the Sanitary Field would meet the needs of P12-00412. No records were found indicating that any such changes were made to the system, thus it is assumed that the process and sanitary wastewater disposal systems remain separate.

### **Proposed Process Wastewater Design Flows**

We have used the generally accepted standard that six gallons of winery process wastewater are generated for each gallon of wine that is produced each year and that 1.5 gallons of wastewater are generated during the crush period for each gallon of wine that is produced. Based on the 30,000 gallon production capacity and the expectation that both white and red wine will be produced at the winery, we have assumed a 45 day crush period. Using these assumptions, the annual, average daily and peak winery process wastewater flows are calculated as follows:

$$\text{Annual Winery Process Wastewater Flow} = \frac{30,000 \text{ gallons wine}}{\text{year}} \times \frac{6 \text{ gallons wastewater}}{1 \text{ gallon wine}}$$

$$\text{Annual Winery Process Wastewater Flow} = 180,000 \text{ gallons per year}$$

$$\text{Average Daily Process Wastewater Flow} = \frac{180,000 \text{ gallons wastewater}}{\text{year}} \times \frac{1 \text{ year}}{365 \text{ days}}$$

$$\text{Average Daily Winery Process Wastewater Flow} = 493 \text{ gallons per day}$$

$$\text{Peak Winery Process Wastewater Flow} = \frac{30,000 \text{ gallons wine}}{\text{year}} \times \frac{1.5 \text{ gallons wastewater}}{1 \text{ gallon wine}} \times \frac{1 \text{ year}}{45 \text{ crush days}}$$

$$\text{Peak Winery Process Wastewater Flow} = 1,000 \text{ gallons per day (gpd)}$$

## **Proposed Sanitary Wastewater Design Flows**

The peak sanitary wastewater flow from the winery is calculated based on the number of winery employees, the number of daily visitors for tastings and the number of guests attending scheduled marketing events. In accordance with Table 4 of the Napa County “Regulations for Design, Construction, and Installation of Alternative Sewage Treatment Systems” we have used a design flow rate of 15 gallons per day per employee and 3 gallons per day per visitor for tastings. Table 4 does not specifically address design wastewater flows for guests at marketing events. Since the applicant is proposing that food will be prepared offsite for events, we have used a design flow of 5 gallons per guest. For larger events portable toilets will be used and therefore they are not evaluated here. Based on these assumptions, the peak winery sanitary wastewater flows are calculated as follows:

### Winery Employees

Peak Sanitary Wastewater Flow = 14 employees X 15 gpd per employee  
Peak Sanitary Wastewater Flow = 210 gpd

### Daily Tastings

Peak Sanitary Wastewater Flow = 18 visitors per day X 3 gallons per visitor  
Peak Sanitary Wastewater Flow = 54 gpd

### Marketing Events – Type 1

Peak Sanitary Wastewater Flow = 24 guests X 5 gallons per guest  
Peak Sanitary Wastewater Flow = 120 gpd

### Marketing Events – Type 2 & 3

Portable toilets will be used for these events and therefore they are not included in the peak flow calculations.

### Vineyard Employees

The existing vineyard break room is also connected to the existing sanitary wastewater disposal system. Up to 10 vineyard employees make use of this room daily. Thus, sanitary wastewater flow from this building will be added to the total peak sanitary wastewater flow calculations.

Peak Sanitary Wastewater Flow = 10 employees X 15 gpd per employee  
Peak Sanitary Wastewater Flow = 150 gpd

### Total Peak Sanitary Wastewater Flow

In order to manage the peak sanitary wastewater flows to the disposal field portable toilets will be used for all events with more than 24 guests in attendance as previously described. Furthermore, no more than one marketing event will be held on any given day. Therefore, the worst-case peak winery sanitary wastewater flow is calculated based on 14 winery employees,

18 visitors, a marketing event for 24 people with a catered meal, and 10 vineyard employees. The peak flow for this scenario is calculated as follows:

Total Peak Sanitary Wastewater Flow = 210 gpd + 54 gpd + 120 gpd + 150gpd = 534 gpd

### **Existing Wastewater Systems Capacity**

The estimated capacity for the existing sanitary wastewater system is 869.5 gallons per day.

The estimated capacity for the existing process wastewater system is 1,787.8 gallons per day.

### **Proposed Design Flow vs Existing Capacity**

The predicted Peak Sanitary Wastewater Flow (534 gpd) is less than the design capacity of the existing sanitary wastewater disposal system (869.5 gpd). Approximately 230 linear feet will be required of the existing 373 linear feet available.

The predicted Peak Winery Process Wastewater Flow (1,000 gpd) is less than the design capacity of the existing process wastewater disposal system (1,787.8 gpd). Approximately 430 linear feet will be required of the existing 767 linear feet available.

### **Recommendations**

New State requirements dictate that the process wastewater will need to be pre-treated before being disposed of in the existing leach field, even though the capacity of the existing leach field is sufficient. Thus, the wastewater streams will continue to be handled separately.

The sanitary wastewater will continue to go to the existing leach field since the peak flows (534 gpd) are less than the 869.5 gpd design capacity for the existing leach field. The sanitary waste field will continue to be run in the County permitting system.

The process wastewater will be kept completely separate and be pretreated to land application strength requirements (160 mg/l BOD and 80 mg/l TSS recommended). Two options for final disposal will be considered, surface irrigated to approximately 2 acres of vineyard and 0.5 acres of landscape located east of the winery development area or disposal back into the existing process wastewater only leach fields.

### **Reserve Area**

Napa County code requires that an area be set aside to accommodate a future onsite wastewater disposal system in the event that the primary system fails or the soil in the primary area is otherwise rendered unsuitable for wastewater disposal. The reserve area would need to account for 584 gpd for sanitary wastewater and 1,000 gpd of process wastewater.

As the process wastewater shall be treated for land application, there are extensive vineyards and landscaping areas that can be used for reserve area. At present, 2 acres is noted for the primary disposal area, and there is over 20 acres of vineyard available. In addition, if land application is used for the primary disposal, the existing process wastewater leach field will be

unused. 430 linear feet of this leach field may also be used for the process wastewater reserve area.

There is sufficient unused leach field area available to be used for the sanitary wastewater disposal reserve area. 337 linear feet of the process wastewater leach field is unused available area. 230 linear feet of this area can be capped and used for the sanitary wastewater reserve area.

### **Pretreatment Irrigation Storage Tank Capacities**

A new pretreatment system will be required to clean the winery process wastewater for re-use for vineyard irrigation. Furthermore, a storage tank will be required to hold the treated water during periods that it cannot be applied to the vineyard. A water balance was prepared (attached) and we recommend a minimum storage volume of approximately 10,000 gallons to provide operational flexibility. The details of the pretreatment system and irrigation storage tank will be fully detailed on future construction permit submittals after Use Permit Modification approval.

### **Summary**

The information and calculations presented above illustrate that the wastewater flows associated with the proposed Use Permit Modification can be handled onsite by keeping the sanitary wastewater system intact and upgrading the existing process wastewater treatment system and re-using the treated winery process wastewater for irrigation. Full design details of the required upgrades will be submitted for your review as part of the building permit and sewage permit process.

We trust that this provides the information you need to process the subject Use Permit Modification. Please feel free to contact us at (707) 320-4968 if you have any questions.  
Sincerely,

Applied Civil Engineering Incorporated

By:

***Michael R. Muelrath***

Michael R. Muelrath RCE 67435  
Principal



Copy:

Antoine Donnedieu, Eisele Vineyard (via email)  
George Monteverdi, Monteverdi Consulting (via email)

Enclosures:

Eisele Vineyard Winery Use Permit Modification Conceptual Site Improvement Plans  
Water Balance Spreadsheet

## Irrigation Storage Tank Water Balance

| Month     | Beginning Balance | Process Wastewater | Land Application Capacity | Ending Balance |
|-----------|-------------------|--------------------|---------------------------|----------------|
| January   | 0                 | 12,600             | 43,444                    | 0              |
| February  | 0                 | 9,000              | 43,444                    | 0              |
| March     | 0                 | 9,000              | 43,444                    | 0              |
| April     | 0                 | 7,200              | 43,444                    | 0              |
| May       | 0                 | 7,200              | 32,608                    | 0              |
| June      | 0                 | 12,600             | 81,519                    | 0              |
| July      | 0                 | 18,000             | 81,519                    | 0              |
| August    | 0                 | 23,400             | 48,912                    | 0              |
| September | 0                 | 23,400             | 48,912                    | 0              |
| October   | 0                 | 27,000             | 32,608                    | 0              |
| November  | 0                 | 18,000             | 43,444                    | 0              |
| December  | 0                 | 12,600             | 43,444                    | 0              |
|           |                   | 180,000            | 586,741                   |                |

### Notes:

1. All values shown above for beginning balance, inflow, outflow and ending balance are in units of gallons.
2. See attached tables for detailed explanation of process wastewater and irrigation data presented in this table.
3. This water balance is based on the assumption that the tank is empty in August, just prior to crush.
4. This table is intended to illustrate waste disposal capability only. Where irrigation demand exceeds available treated wastewater availability additional irrigation water will be provided by another source.

## Winery Process Wastewater Generation Analysis

|                                   |                                |
|-----------------------------------|--------------------------------|
| Annual Wine Production            | 30,000 gallons                 |
| Wastewater Generation Rate        | 6 gallons per gallon of wine   |
| Annual Wastewater Generation      | 180,000 gallons                |
| Crush Season Length               | 45 days                        |
| Wastewater Generated During Crush | 1.5 gallons per gallon of wine |
| Peak Wastewater Generation Rate   | 1,000 gallons per day          |

| Winery Process Wastewater Generation Table |                            |                        |                    |
|--------------------------------------------|----------------------------|------------------------|--------------------|
| Month                                      | Percentage of Annual Total | Monthly Flow (gallons) | Average Flow (gpd) |
| January                                    | 7.0%                       | 12,600                 | 406                |
| February                                   | 5.0%                       | 9,000                  | 321                |
| March                                      | 5.0%                       | 9,000                  | 290                |
| April                                      | 4.0%                       | 7,200                  | 240                |
| May                                        | 4.0%                       | 7,200                  | 232                |
| June                                       | 7.0%                       | 12,600                 | 420                |
| July                                       | 10.0%                      | 18,000                 | 581                |
| August                                     | 13.0%                      | 23,400                 | 755                |
| September                                  | 13.0%                      | 23,400                 | 780                |
| October                                    | 15.0%                      | 27,000                 | 871                |
| November                                   | 10.0%                      | 18,000                 | 600                |
| December                                   | 7.0%                       | 12,600                 | 406                |
| Total                                      | 100.0%                     | 180,000                |                    |

**Notes:**

- I. Wastewater generation rates and monthly proportioning are based on our past experience with similar projects.

## Irrigation Schedule Analysis

### Vineyard Information:

|                           |                                  |
|---------------------------|----------------------------------|
| Total acres of vines      | 2 acres                          |
| Vine Row Spacing (approx) | 7 feet (estimated)               |
| Vine Spacing (approx)     | 5 feet (estimated)               |
| Vine density              | 1,245 vines per acre (estimated) |
| Total Vine Count          | 2,489 vines                      |

### Irrigation Information:

Seasonal Irrigation<sup>1</sup> 131.0 gallons per vine (May through October)

Non-Irrigation Application 0.8 inches per month October through April

| Irrigation Schedule |                                 |                               |                               |                                               |                 |
|---------------------|---------------------------------|-------------------------------|-------------------------------|-----------------------------------------------|-----------------|
| Month               | Monthly Percentage <sup>2</sup> | Irrigation per Vine (gallons) | Seasonal Irrigation (gallons) | Non-Seasonal Irrigation Application (gallons) | Total (gallons) |
| January             |                                 | 0.0                           | 0                             | 43,444                                        | 43,444          |
| February            |                                 | 0.0                           | 0                             | 43,444                                        | 43,444          |
| March               |                                 | 0.0                           | 0                             | 43,444                                        | 43,444          |
| April               |                                 | 0.0                           | 0                             | 43,444                                        | 43,444          |
| May                 | 10%                             | 13.1                          | 32,608                        | 0                                             | 32,608          |
| June                | 25%                             | 32.8                          | 81,519                        | 0                                             | 81,519          |
| July                | 25%                             | 32.8                          | 81,519                        | 0                                             | 81,519          |
| August              | 15%                             | 19.7                          | 48,912                        | 0                                             | 48,912          |
| September           | 15%                             | 19.7                          | 48,912                        | 0                                             | 48,912          |
| October             | 10%                             | 13.1                          | 32,608                        | 0                                             | 32,608          |
| November            |                                 | 0.0                           | 0                             | 43,444                                        | 43,444          |
| December            |                                 | 0.0                           | 0                             | 43,444                                        | 43,444          |
| Total               | 100%                            | 131.0                         | 326,078                       | 260,663                                       | 586,741         |

### Notes:

1. Irrigation per vine is based on 0.5 acre-feet per acre of vines per Napa County WAA Guidance Document.
2. Monthly vineyard irrigation percentages are based on our past experience with projects of this type.
3. Non-Irrigation Application is for managing tank levels and assumes a maximum of 5 operational days per month based on historic weather data (Summit Engineering NBRID Capacity Study, 1996) and a saturated soil infiltration rate of 0.1 gallons per square foot per day uniformly over the entire area.

# EISELE VINEYARD

## WINERY USE PERMIT MODIFICATION CONCEPTUAL SITE IMPROVEMENT PLANS



OVERALL SITE PLAN

SCALE: 1" = 200'

### GRADING QUANTITIES\*

|       |            |
|-------|------------|
| CUT   | 2,200 ± CY |
| FILL  | 500 ± CY   |
| NET** | 1,700 ± CY |

\* THIS ESTIMATE IS PROVIDED AS A TOOL FOR THE REVIEWING AGENCIES TO EVALUATE THE ENVIRONMENTAL IMPACTS OF THE PROJECT. IT IS NOT INTENDED TO BE USED FOR CONSTRUCTION PURPOSES. CONTRACTOR IS TO PERFORM THEIR OWN EARTHWORK CALCULATIONS AND SHALL NOT USE THE ESTIMATES PRESENTED ABOVE. THIS ESTIMATE IS BASED ON IN PLACE VOLUMES AND DOES NOT INCLUDE FLUFF, SHRINKAGE, PAVING, AGGREGATES OR SELECT FILL VOLUMES.

\*\* EXCESS SOIL CUT FROM THE PROJECT WILL BE SPREAD IN A THIN LAYER IN THE < 5% SLOPE VINEYARD AREAS OR HAULED OFFSITE TO A LOCATION PRE-APPROVED BY NAPA COUNTY.



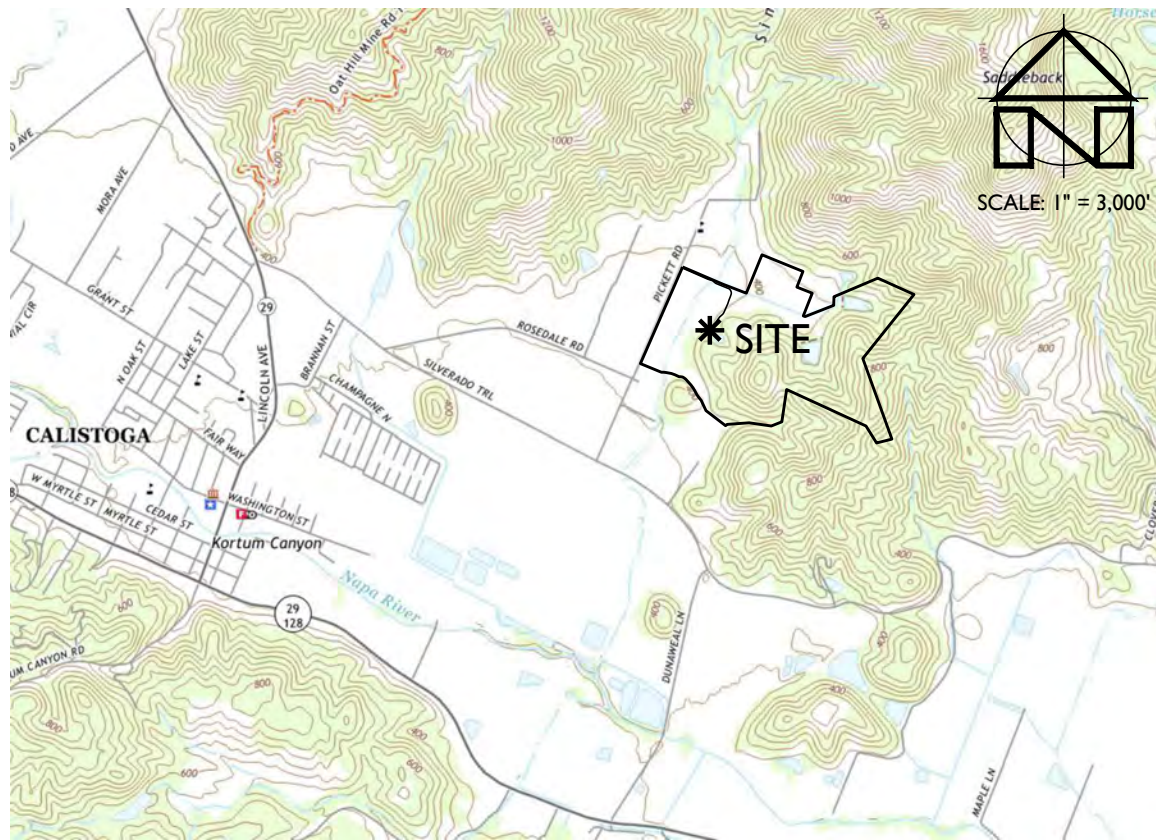
### SOIL TYPE LEGEND:

- 105 BALE CLAY LOAM, 2 TO 5 PERCENT SLOPES
- 124 CORTINA VERY GRAVELLY LOAM, 0 TO 5 PERCENT SLOPES
- 140 FORWARD GRAVELLY LOAM, 30 TO 75 PERCENT SLOPES
- 141 FORWARD-KIDD COMPLEX, 50 TO 75 PERCENT SLOPES
- 152 HAMBRIGHT ROCK-OUTCROP COMPLEX, 30 TO 75 PERCENT SLOPES
- 170 PLEASANTON LOAM, 0 TO 2 PERCENT SLOPES
- 183 POND

SOIL TYPE BOUNDARIES SHOWN ON THIS MAP ARE BASED ON THE NAPA COUNTY GEOGRAPHIC INFORMATION SYSTEM DATA AND SHOULD BE CONSIDERED APPROXIMATE.

### NOTES:

- FADED BACKGROUND REPRESENTS EXISTING TOPOGRAPHIC FEATURES. TOPOGRAPHIC INFORMATION ON SHEETS C1 & C2 WAS TAKEN FROM ELEVATION DATA DERIVED FROM BARE-EARTH SURFACE DIGITAL ELEVATION MODELS (DEMS) CREATED FROM LIDAR DATA FLOWN IN 2018 IN RESPONSE TO THE WIDESPREAD 2017 FIRES IN NORTHERN CALIFORNIA AS PART OF ONGOING NATIONWIDE 3DEP (U.S. GEOLOGICAL SURVEY 3D ELEVATION PROGRAM) EFFORTS. TOPOGRAPHIC INFORMATION ON OTHER SHEETS WAS TAKEN FROM THE TOPOGRAPHIC MAP OF A PORTION OF THE LANDS OF EISELE VINEYARD\* PREPARED BY TERRA FIRMA SURVEYS, INC., DATED NOVEMBER 10, 2023. APPLIED CIVIL ENGINEERING INCORPORATED ASSUMES NO LIABILITY REGARDING THE ACCURACY OR COMPLETENESS OF THE TOPOGRAPHIC INFORMATION.
- AERIAL PHOTOGRAPHS ARE NADIR IMAGES CAPTURED BY PICTOMETRY INTERNATIONAL DATED JULY 15, 2021 AND MAY NOT REPRESENT CURRENT CONDITIONS.
- CONTOUR INTERVAL:  
SHEET C1: FIVE (5) FEET, HIGHLIGHTED EVERY TWENTY FIVE (25) FEET.  
SHEET C2: TWO (2) FEET, HIGHLIGHTED EVERY TEN (10) FEET.  
OTHER SHEETS: ONE (1) FOOT, HIGHLIGHTED EVERY FIVE (5) FEET.
- VERTICAL DATUM: NAVD 88
- THE PROPERTY LINES SHOWN ON THESE PLANS DO NOT REPRESENT A BOUNDARY SURVEY. THEY ARE APPROXIMATE AND ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.



LOCATION MAP

SCALE: 1" = 3,000'

### PROJECT INFORMATION:

#### PROPERTY OWNER & APPLICANT:

KERWIN ESTATE LLC  
2155 PICKETT ROAD  
CALISTOGA, CA 94515

#### SITE ADDRESS:

2155 PICKETT ROAD  
CALISTOGA, CA 94515

#### ASSESSOR'S PARCEL NUMBER:

020-340-030

#### PARCEL SIZE:

162.2 ± ACRES

#### PROJECT SIZE:

1.2 ± ACRES

#### ZONING:

AGRICULTURAL PRESERVE (AP) AND  
AGRICULTURAL WATERSHED (AW)

#### DOMESTIC WATER SOURCE:

WELLS

#### FIRE PROTECTION WATER SOURCE:

TANK

#### WASTEWATER DISPOSAL:

ONSITE TREATMENT AND DISPERSAL

### SHEET INDEX:

- |     |                                                  |
|-----|--------------------------------------------------|
| C1  | OVERALL SITE PLAN                                |
| C2  | OVERALL WINERY SITE PLAN                         |
| C3  | WINERY SITE DEMOLITION PLAN                      |
| C4  | DRIVEWAY PLAN AND PROFILE STA 9+75 TO STA 19+50  |
| C5  | DRIVEWAY PLAN AND PROFILE STA 19+50 TO STA 27+25 |
| C6  | DRIVEWAY CROSS SECTIONS STA 10+25 TO STA 20+50   |
| C7  | DRIVEWAY CROSS SECTIONS STA 20+75 TO STA 26+75   |
| C8  | WINERY SITE CONCEPTUAL GRADING PLAN              |
| C9  | STORMWATER CONTROL PLAN                          |
| C10 | IMPERVIOUS SURFACE EXHIBIT                       |

### PURPOSE STATEMENT:

THE PURPOSE OF THIS PROJECT IS TO ILLUSTRATE THE CONCEPTUAL DESIGN OF EXISTING DRIVEWAY IMPROVEMENTS AND SITE IMPROVEMENTS FOR THE EXISTING WINERY AND THE NEW SITE IMPROVEMENTS THAT ARE BEING PROPOSED ALONG WITH THE NEW WINERY BUILDING AS PART OF THIS USE PERMIT MODIFICATION.

### FLOOD HAZARD NOTE:

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) MAP NUMBER 06055C0235E, EFFECTIVE SEPTEMBER 26, 2008, ALL OR A PORTION OF THE PROJECT SITE IS LOCATED IN A SPECIAL FLOOD HAZARD AREA SUBJECT TO INUNDATION BY THE 1% CHANCE ANNUAL FLOOD (100 YEAR FLOOD). THE APPROXIMATE FLOOD HAZARD BOUNDARY LINE IS SHOWN ON THIS PLAN. SEE FIRM FOR ADDITIONAL INFORMATION.

### LEGEND:

|     |                                                 |
|-----|-------------------------------------------------|
| --- | APPROXIMATE PROPERTY BOUNDARY (SUBJECT PARCEL)  |
| --- | APPROXIMATE PROPERTY BOUNDARY (ADJACENT PARCEL) |
| --- | EXISTING EASEMENT OR SETBACK                    |
| --- | EXISTING CENTERLINE OF RIGHT OF WAY             |
| --- | COUNTY DEFINITION STREAM                        |
| --- | BLUE LINE STREAM                                |
| --- | WATER BOARD STREAM LAYER                        |
| --- | SOIL TYPE BOUNDARY                              |

PREPARED UNDER THE  
DIRECTION OF:



DRAWN BY:  
PowerCAD LLC

CHECKED BY:  
MRM

DATE:  
MAY 31, 2024

REVISIONS: BY:  
5/31/2024 YMS  
USE PERMIT  
MODIFICATION SUBMITTAL

JOB NUMBER:  
16-128

FILE:  
16-128CONC-OSP.DWG

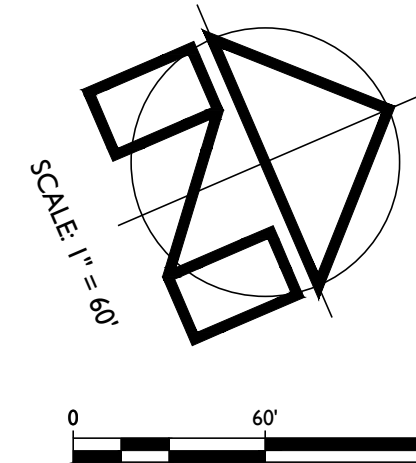
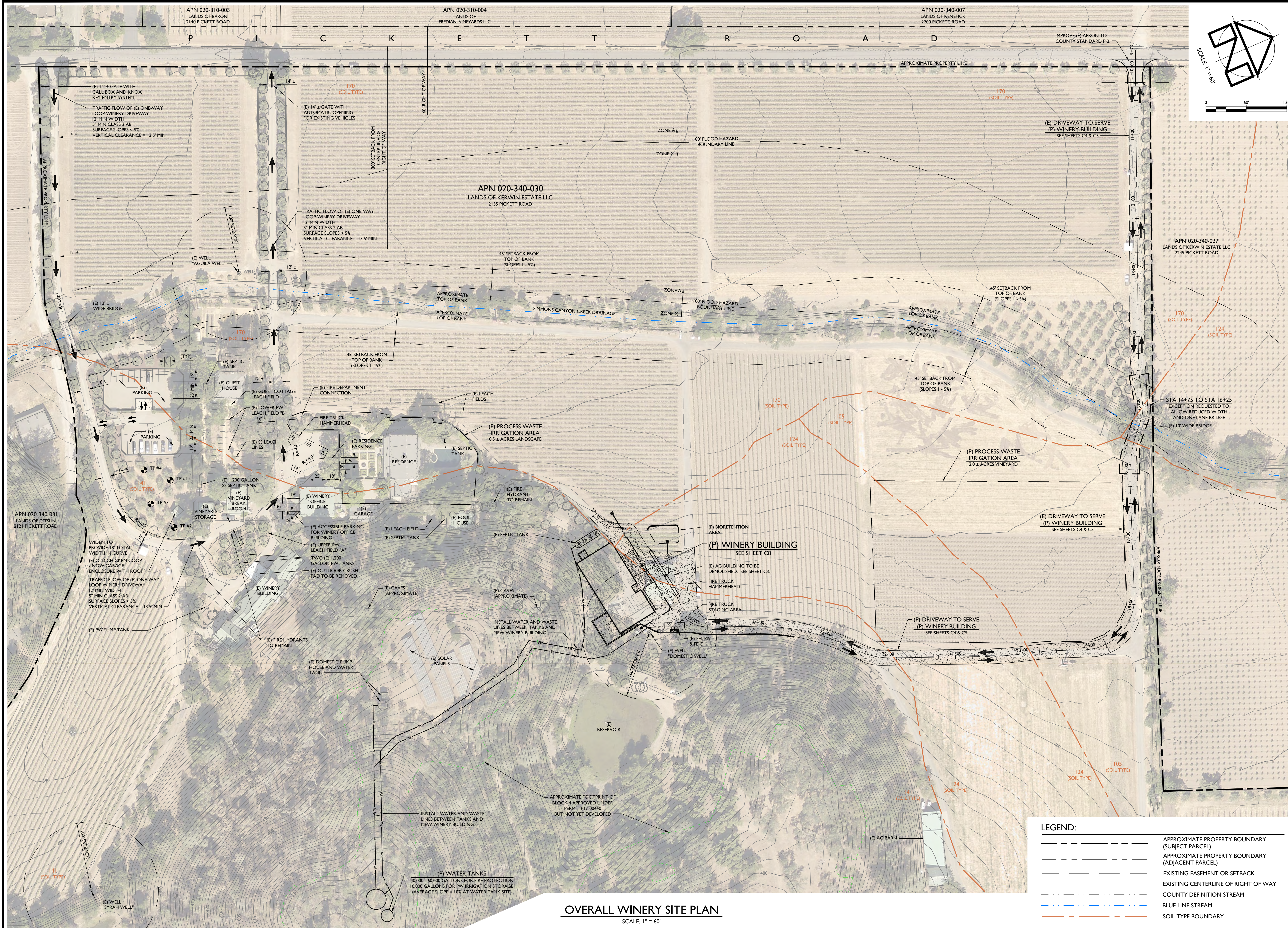
ORIGINAL SIZE:  
24" X 36"

SHEET NUMBER:

C1

OF

10



| LEGEND: |                                                 |
|---------|-------------------------------------------------|
|         | APPROXIMATE PROPERTY BOUNDARY (SUBJECT PARCEL)  |
|         | APPROXIMATE PROPERTY BOUNDARY (ADJACENT PARCEL) |
|         | EXISTING EASEMENT OR SETBACK                    |
|         | EXISTING CENTERLINE OF RIGHT OF WAY             |
|         | COUNTY DEFINITION STREAM                        |
|         | BLUE LINE STREAM                                |
|         | SOIL TYPE BOUNDARY                              |

OVERALL WINERY SITE PLAN  
SCALE: 1" = 60'

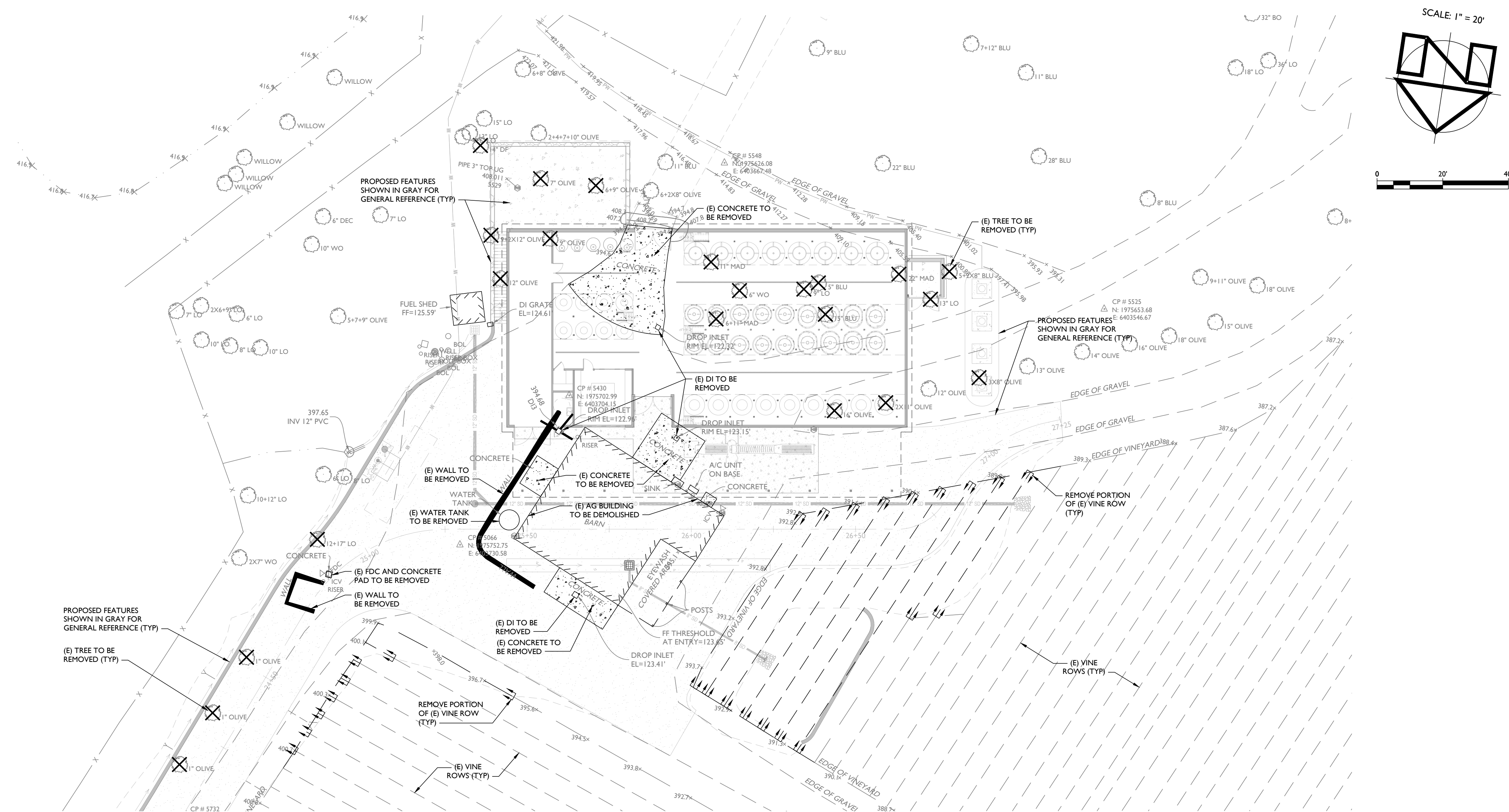
EISELE VINEYARD  
WINERY USE PERMIT MODIFICATION CONCEPTUAL SITE IMPROVEMENT PLANS  
OVERALL WINERY SITE PLAN

PREPARED UNDER THE DIRECTION OF:



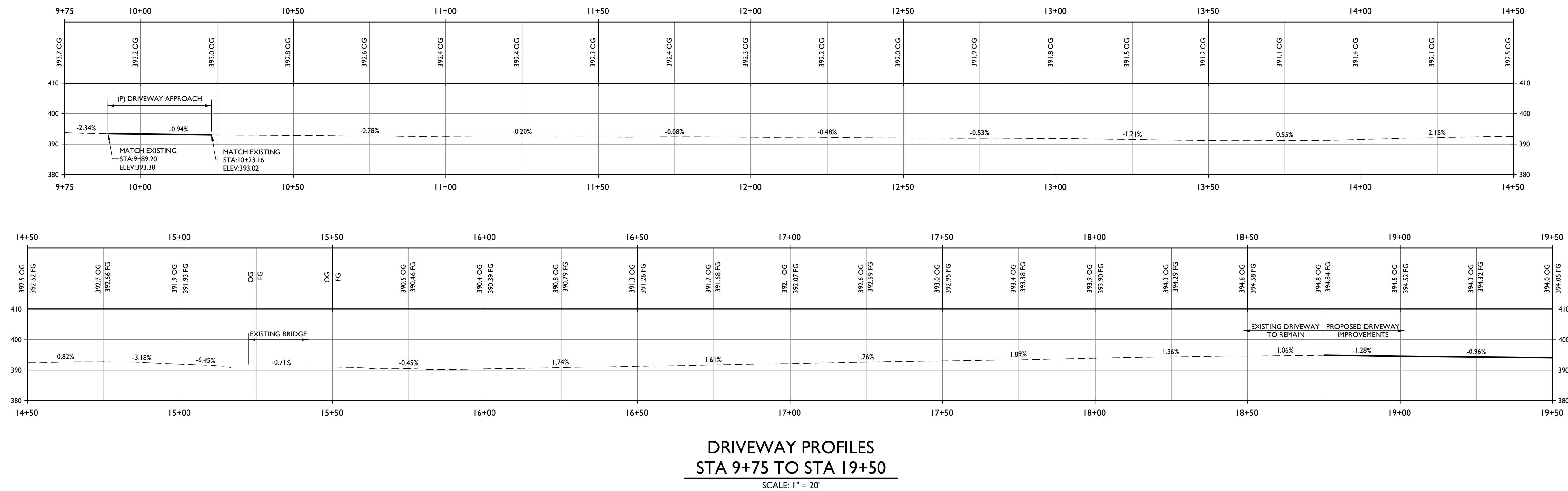
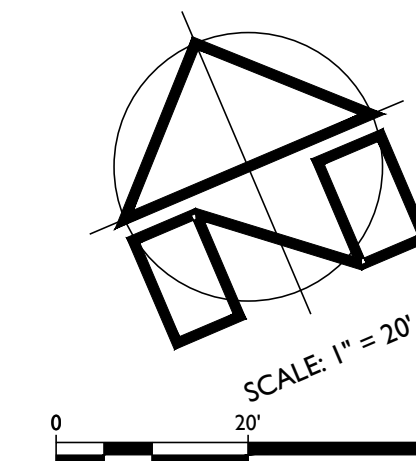
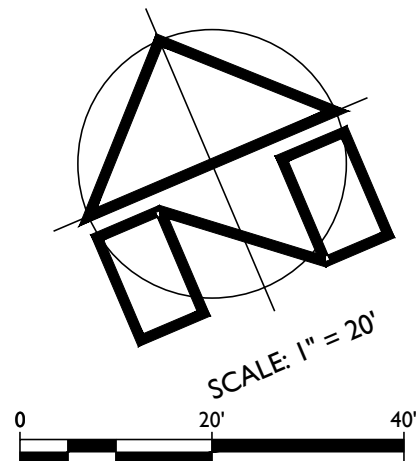
DRAWN BY: PowerCAD LLC  
CHECKED BY: MRM  
DATE: MAY 31, 2024  
REVISIONS: 5/31/2024 YMS  
BY: USE PERMIT MODIFICATION SUBMITTAL

JOB NUMBER: 16-128  
FILE: 16-128CONC-PLAN.DWG  
ORIGINAL SIZE: 24" X 36"  
SHEET NUMBER:

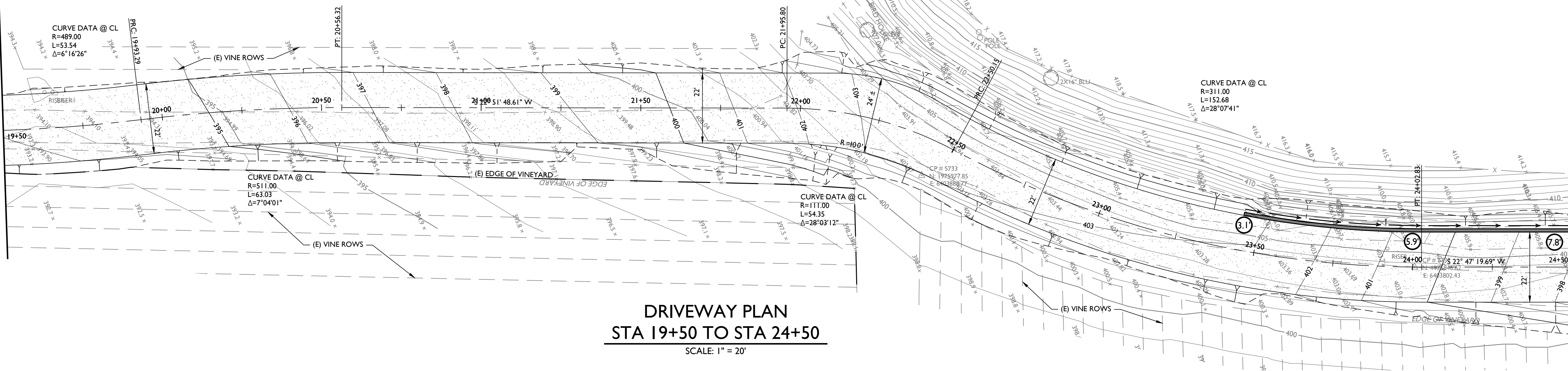


## WINERY SITE DEMOLITION PLAN

SCALE: 1" = 20'

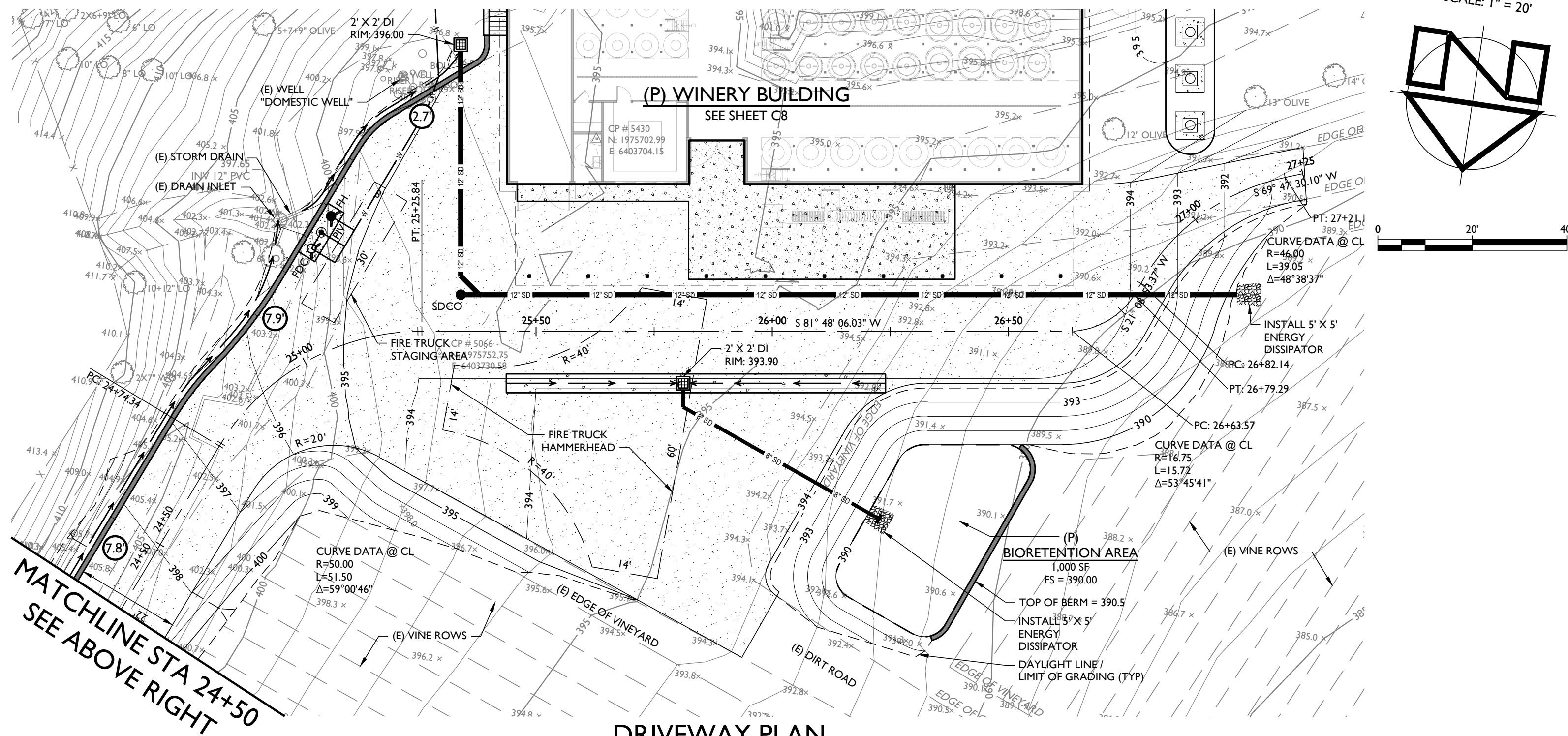


MATCHLINE STA 19+50  
SEE SHEET C4

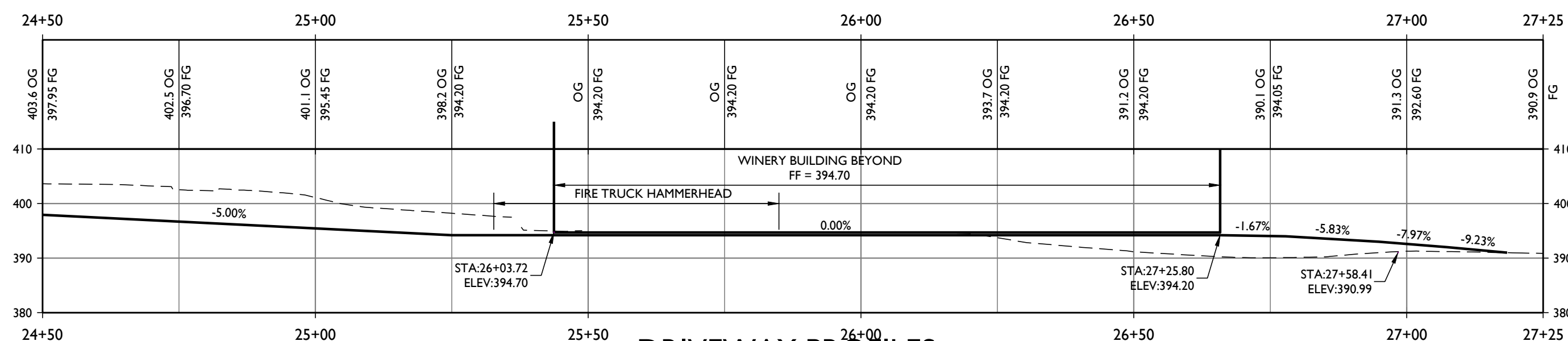
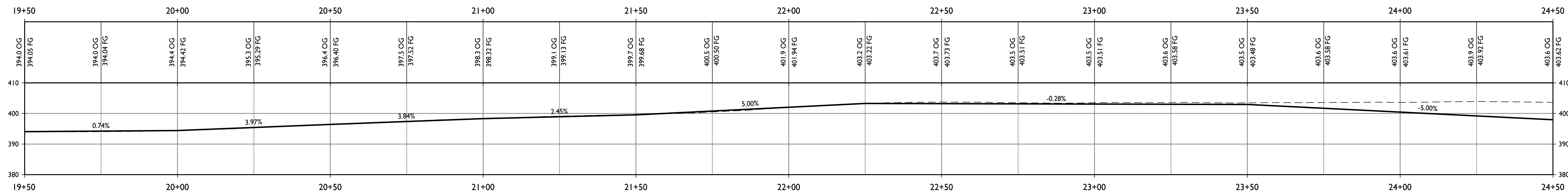


DRIVEWAY PLAN  
STA 19+50 TO STA 24+50  
SCALE: 1" = 20'

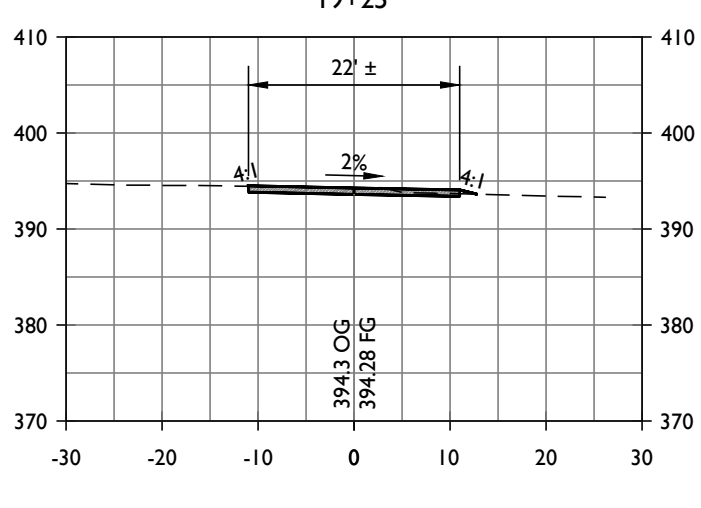
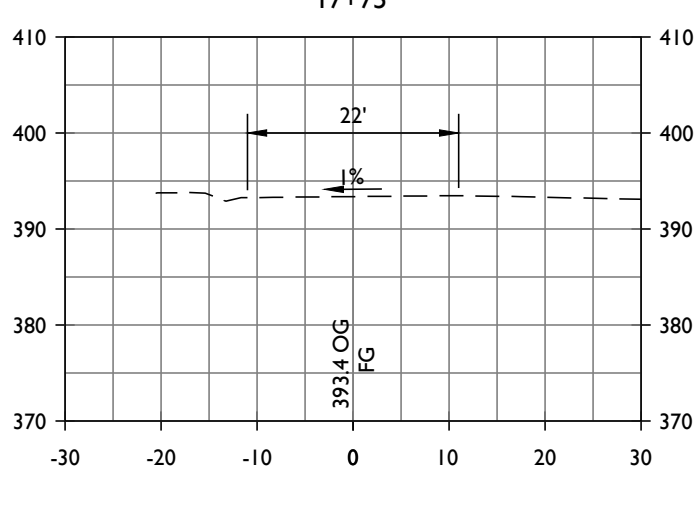
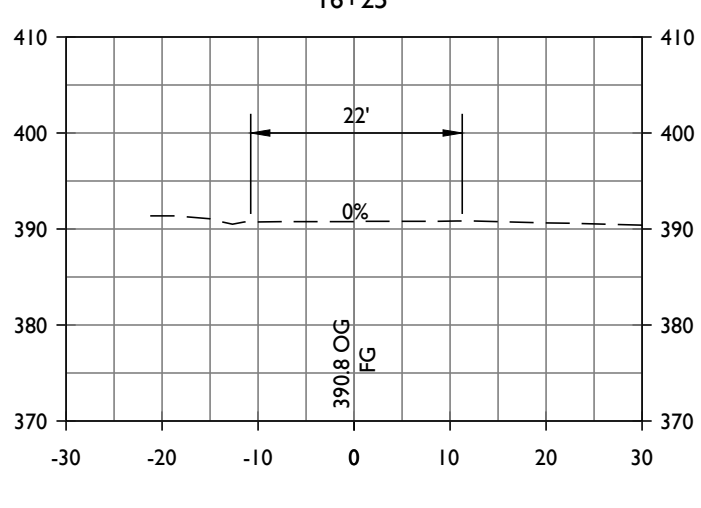
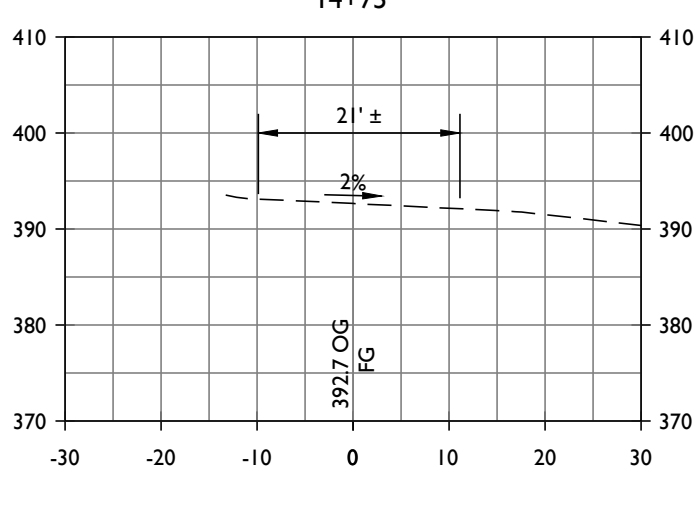
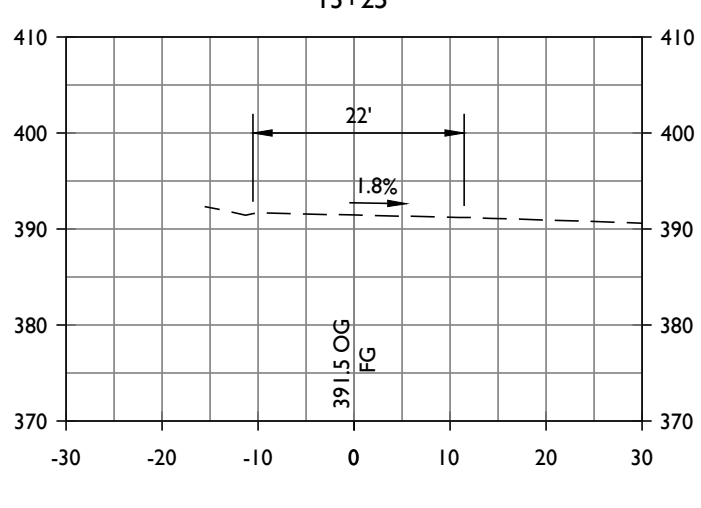
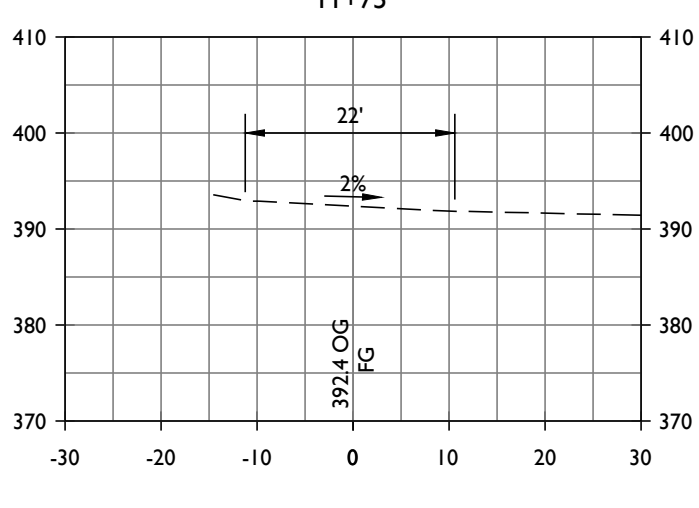
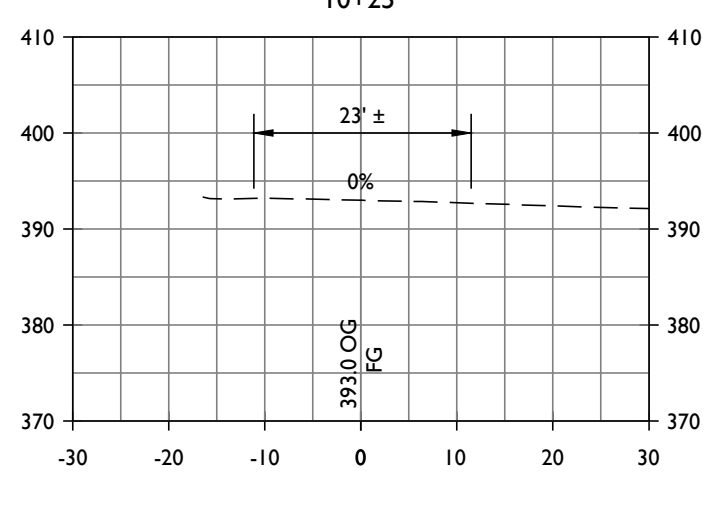
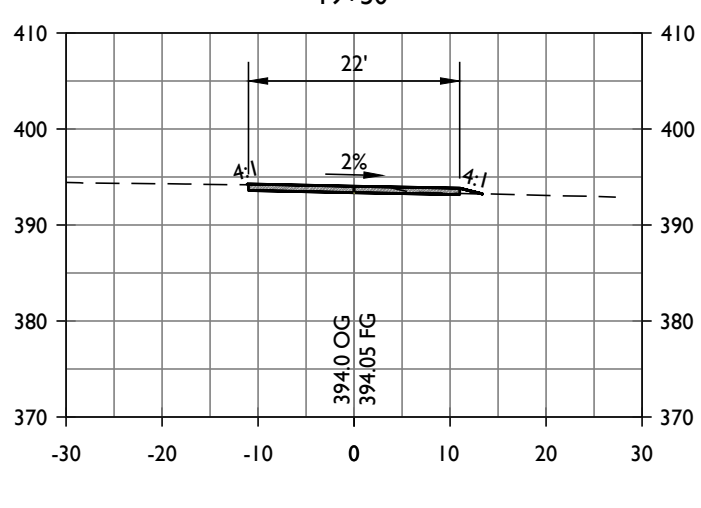
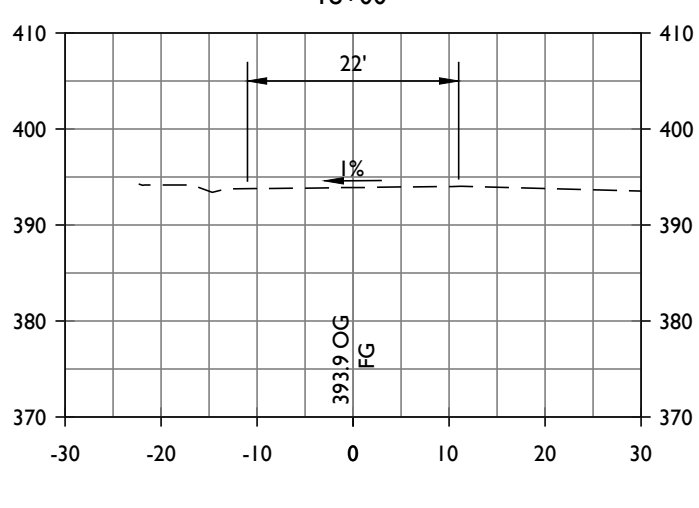
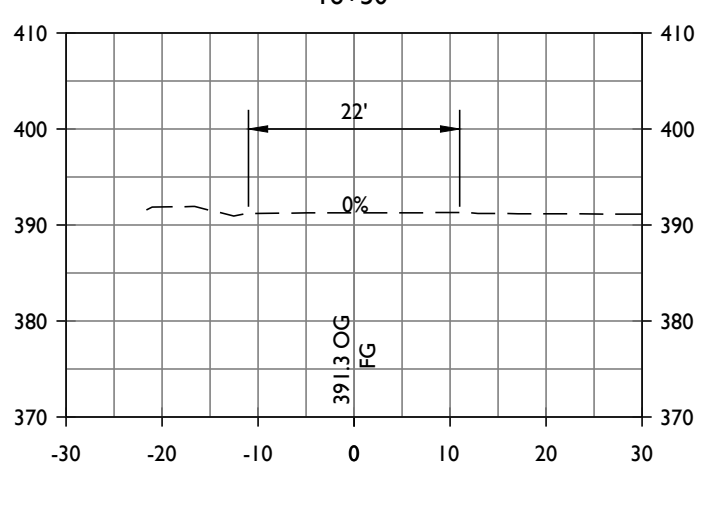
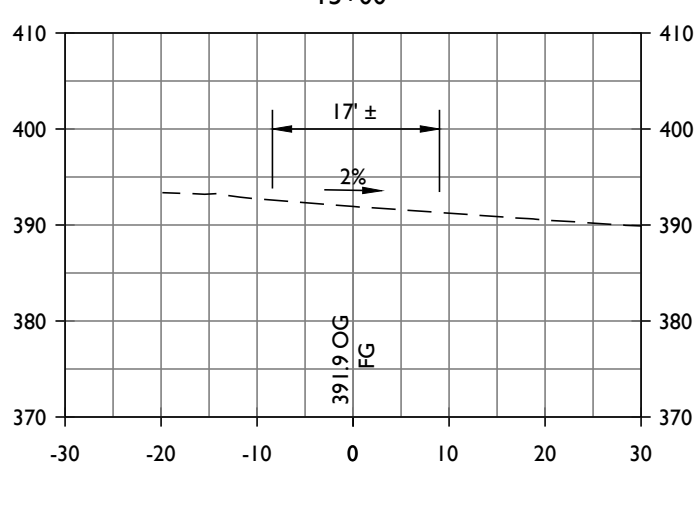
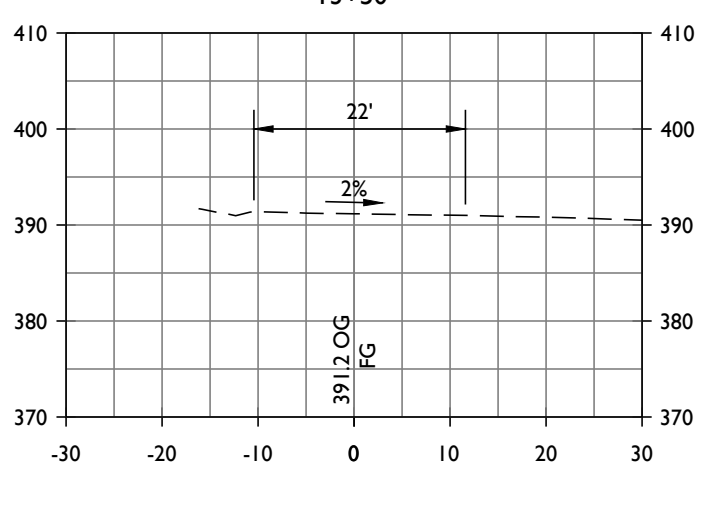
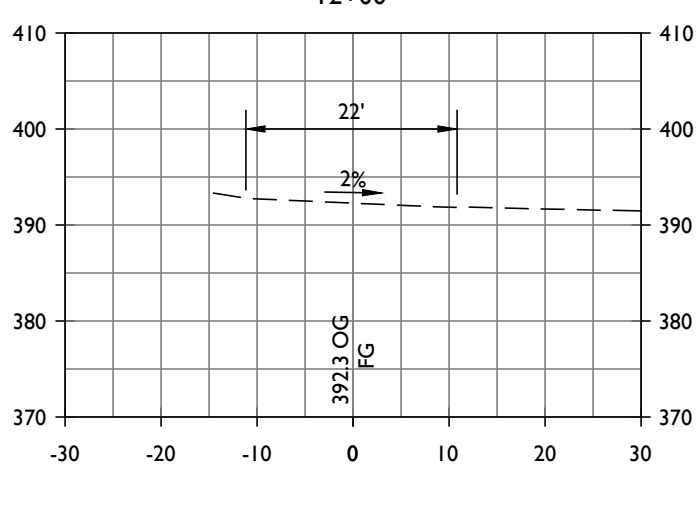
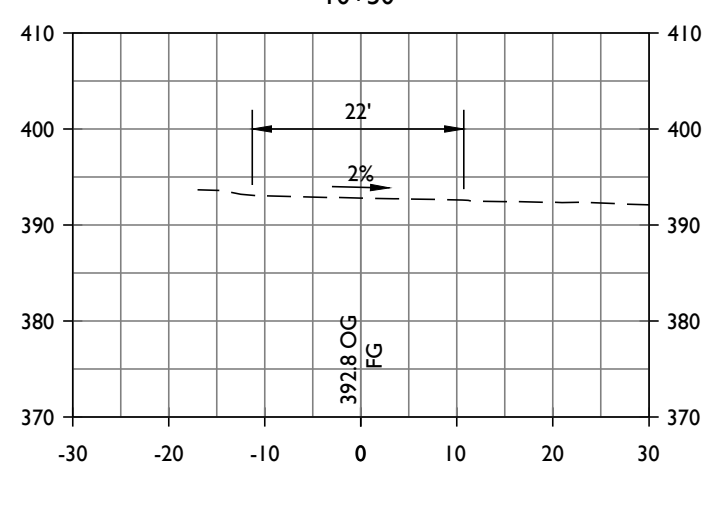
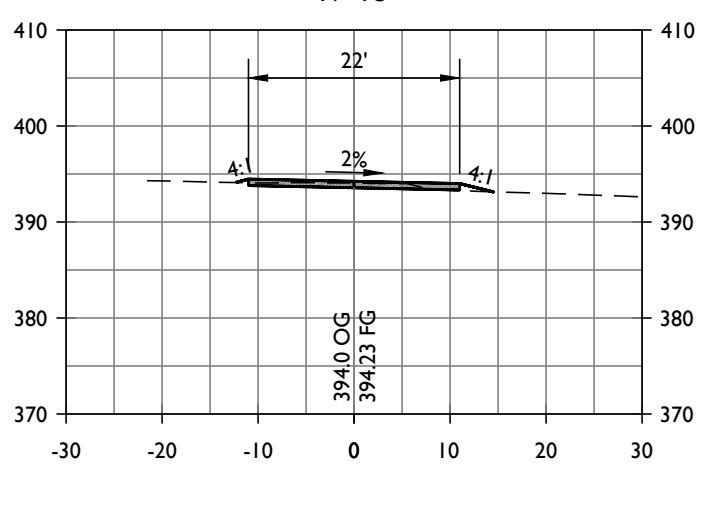
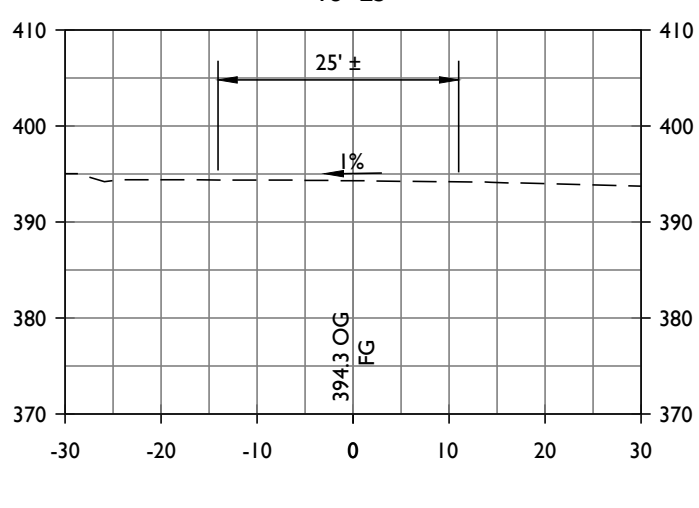
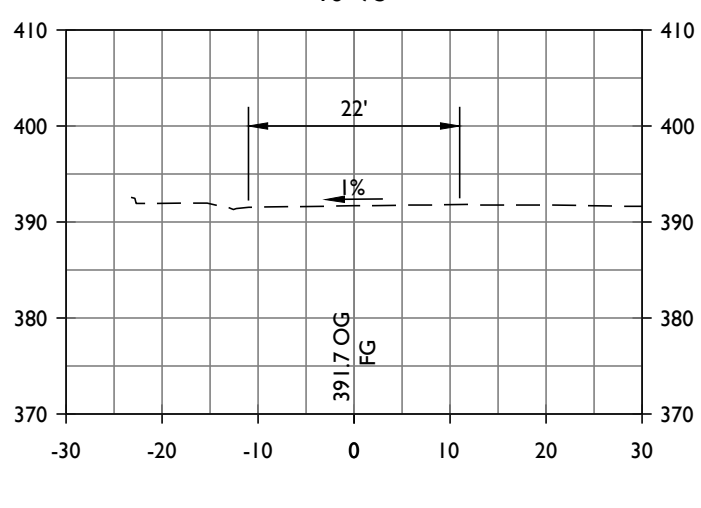
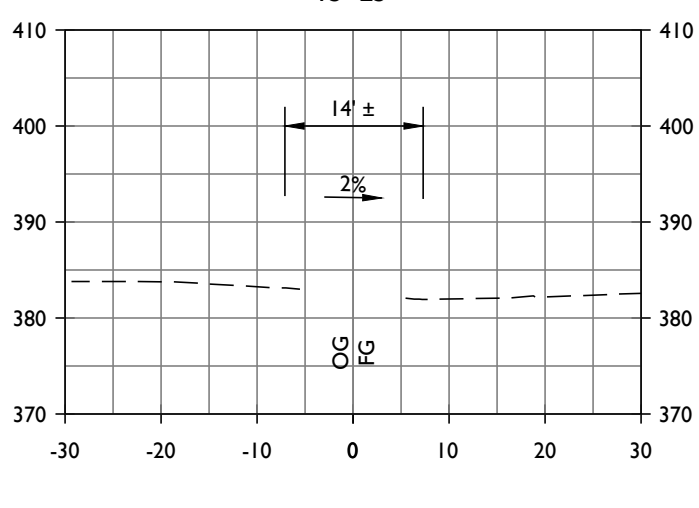
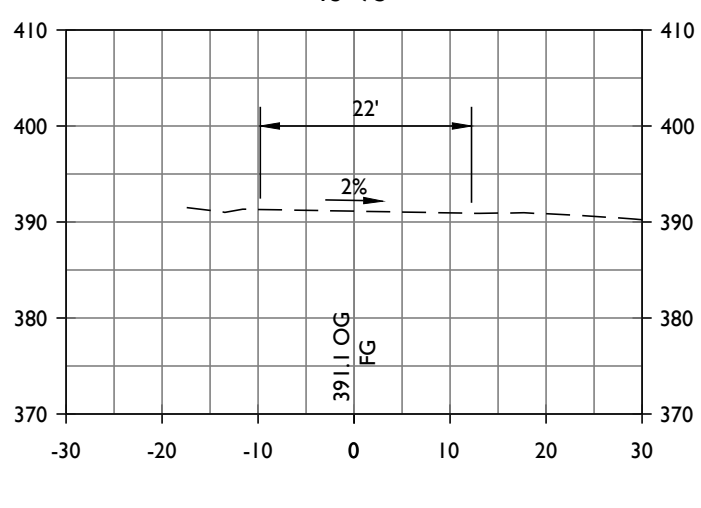
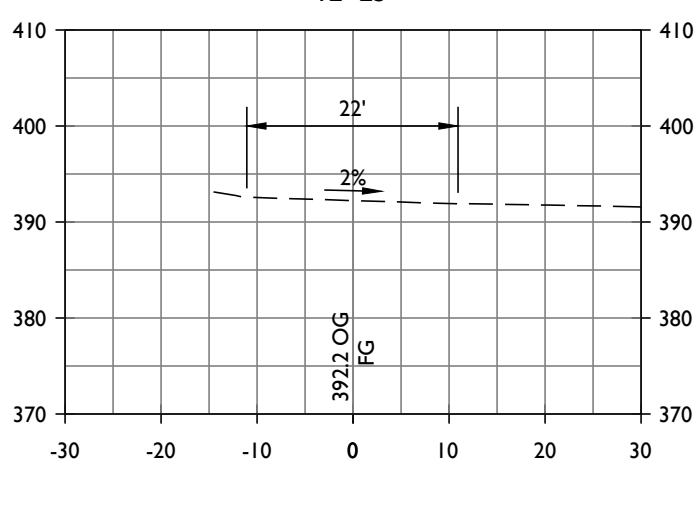
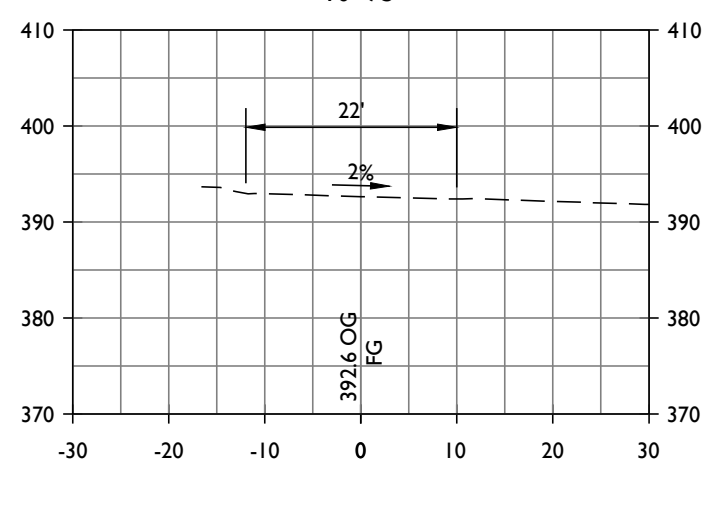
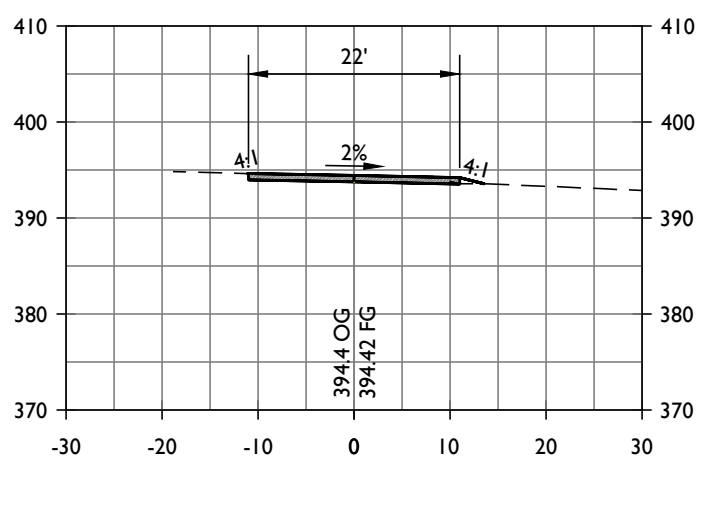
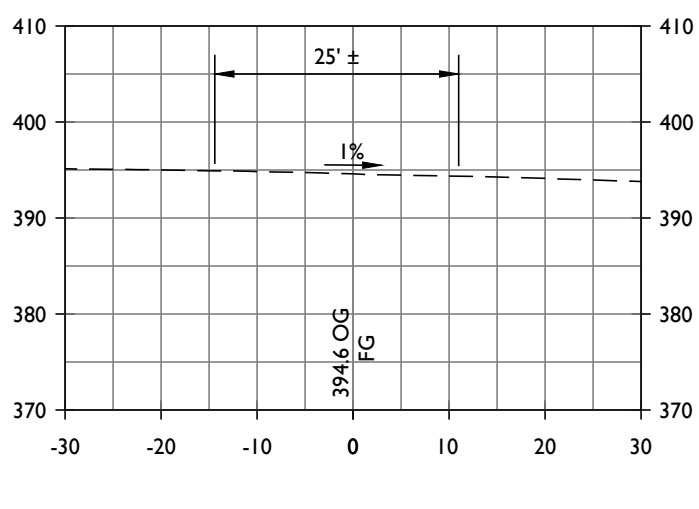
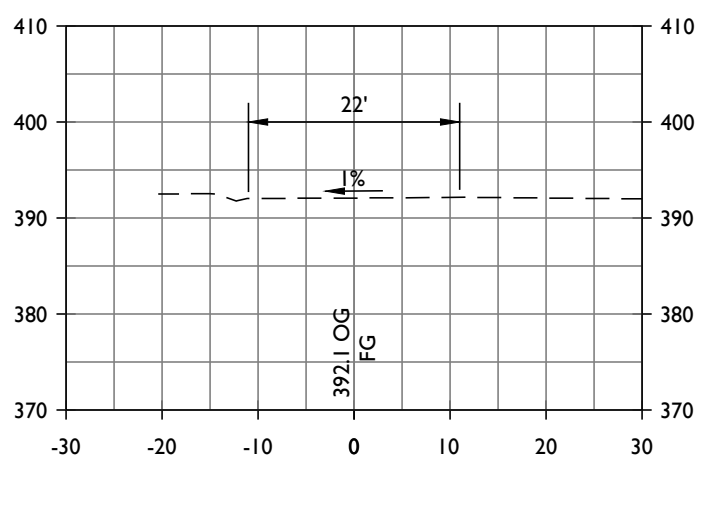
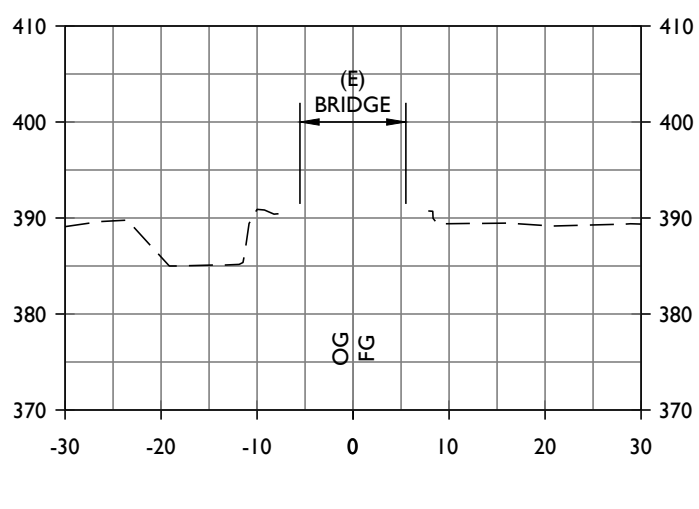
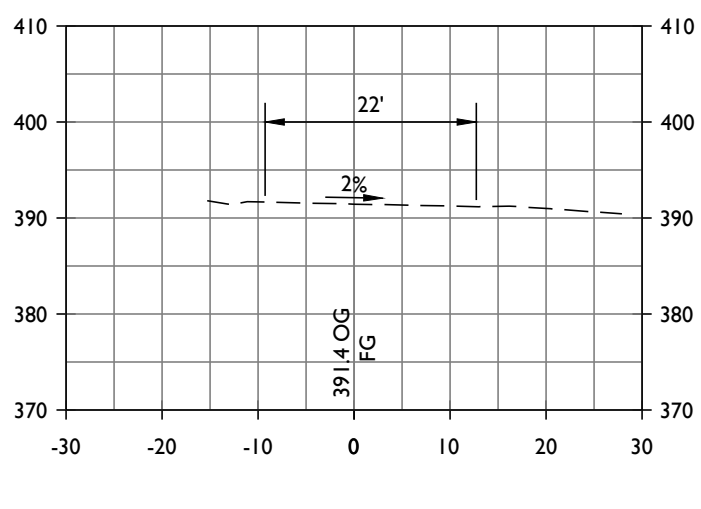
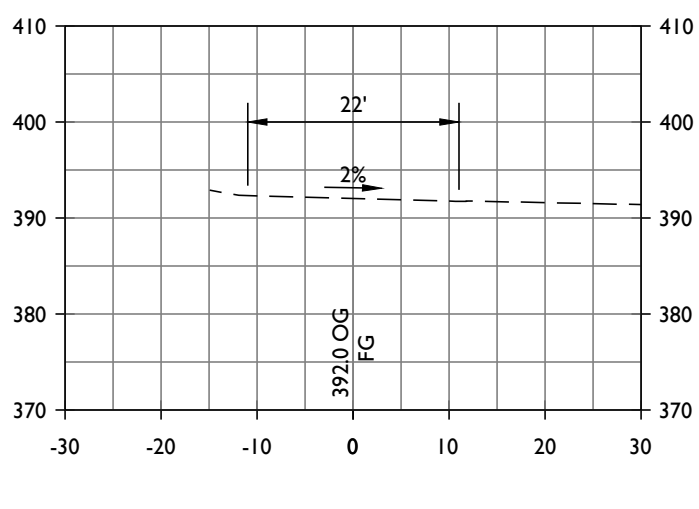
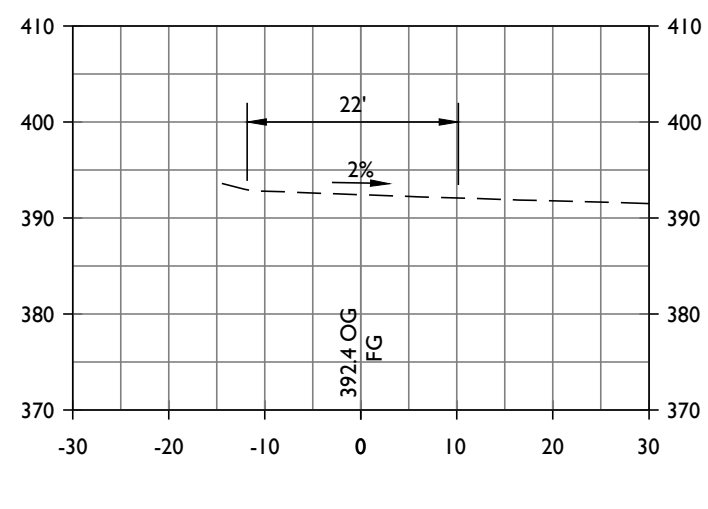
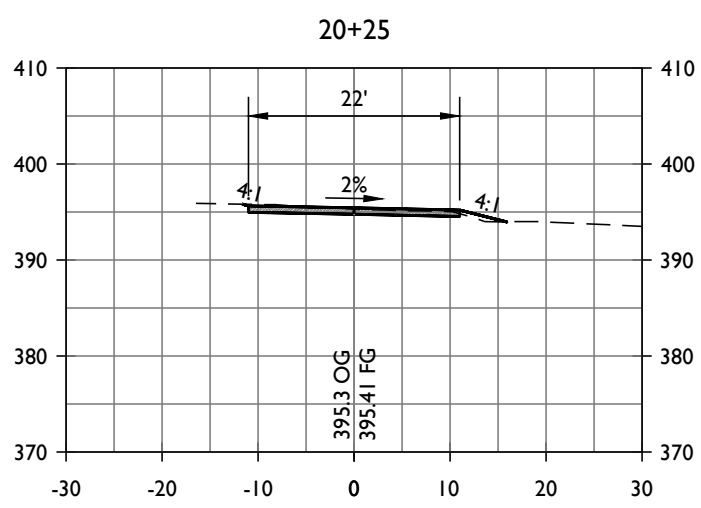
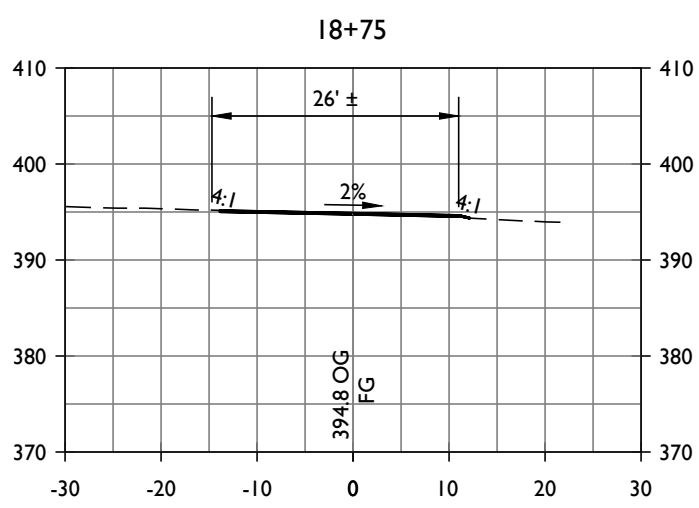
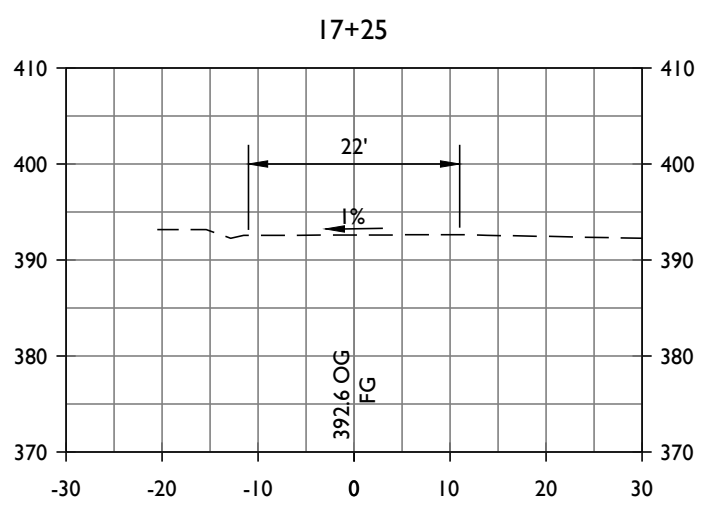
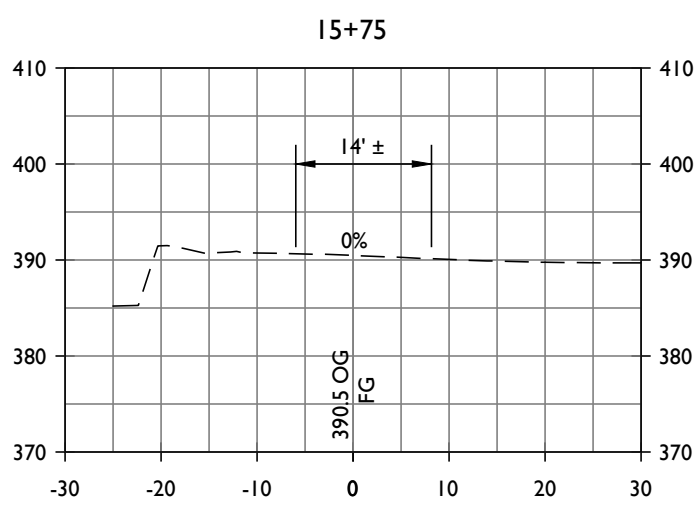
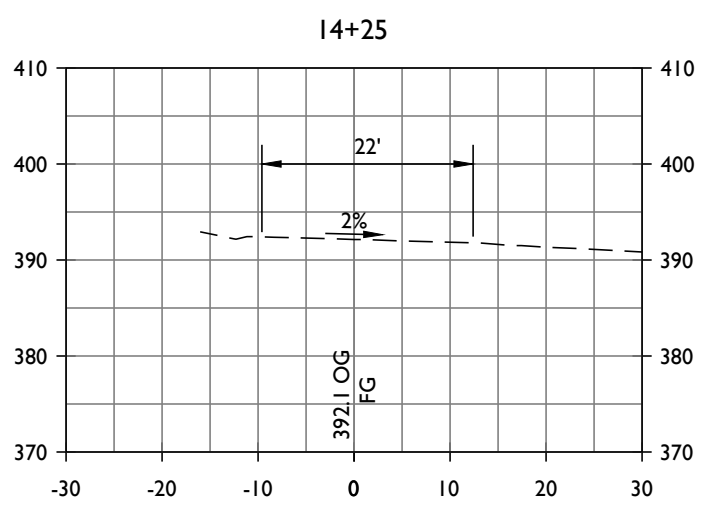
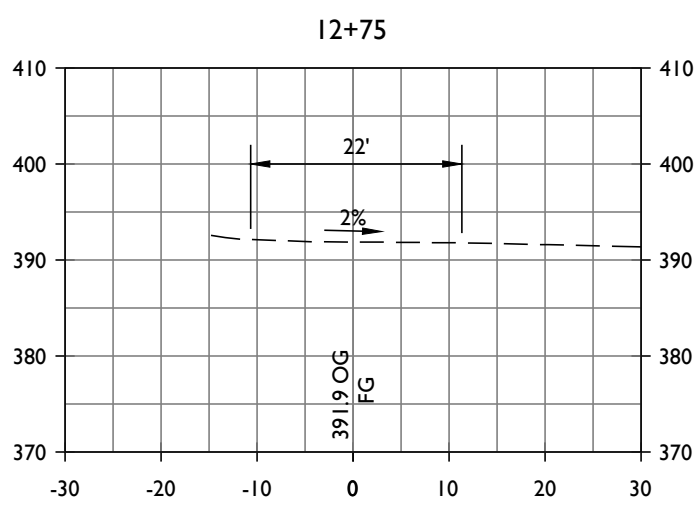
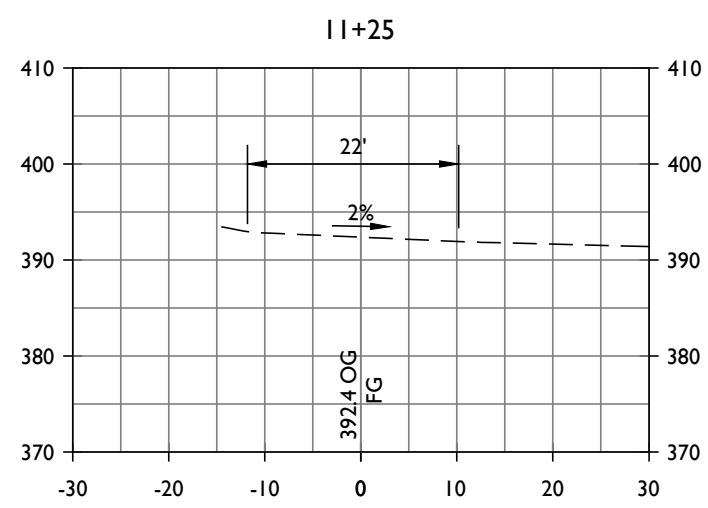
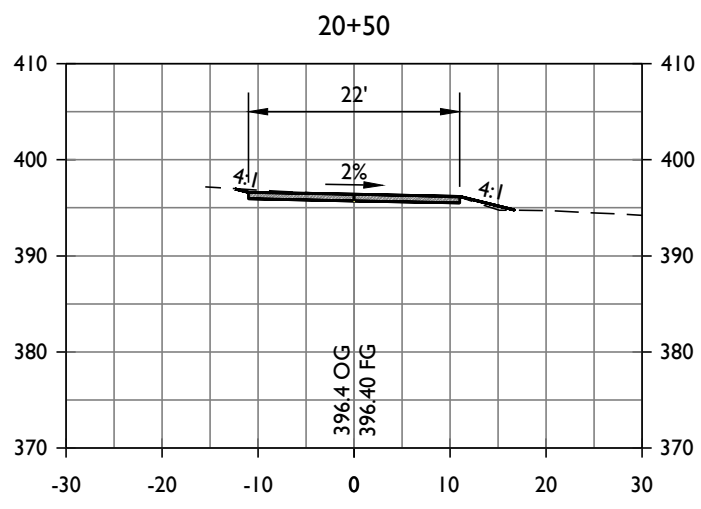
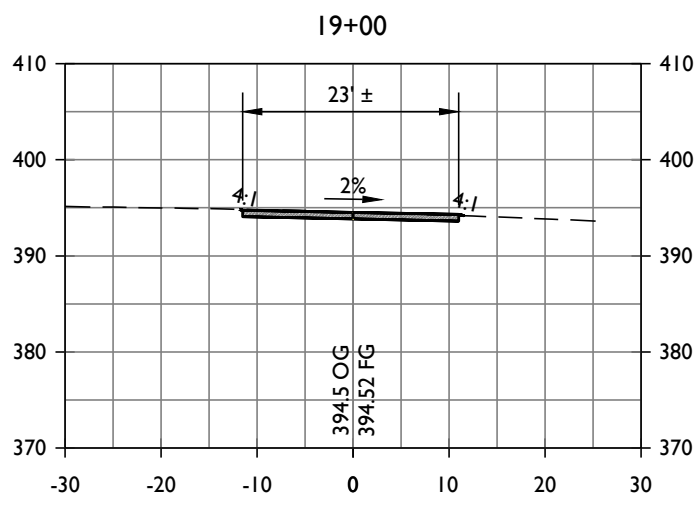
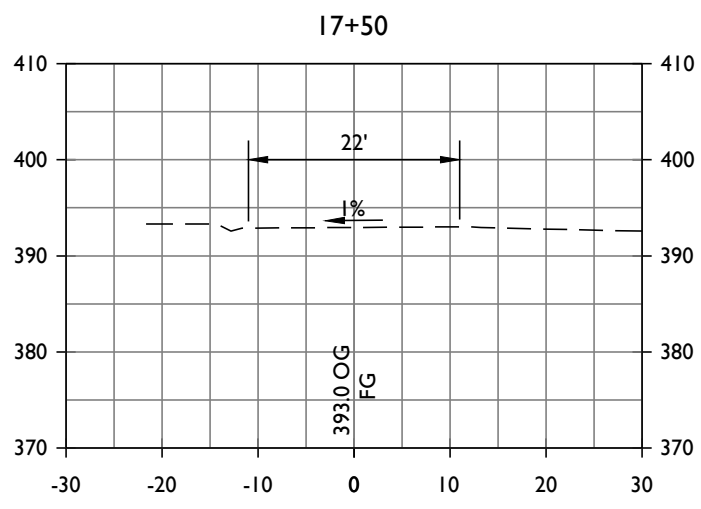
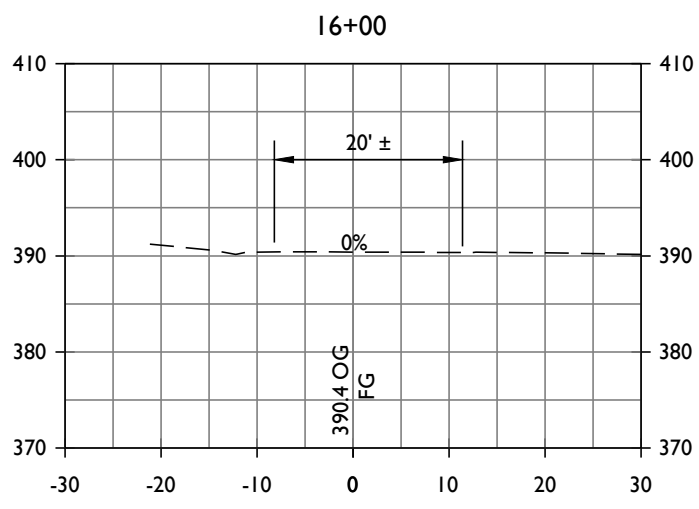
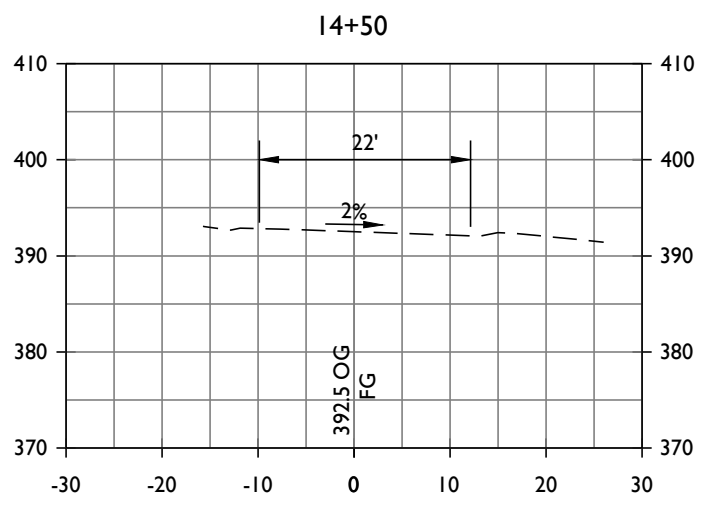
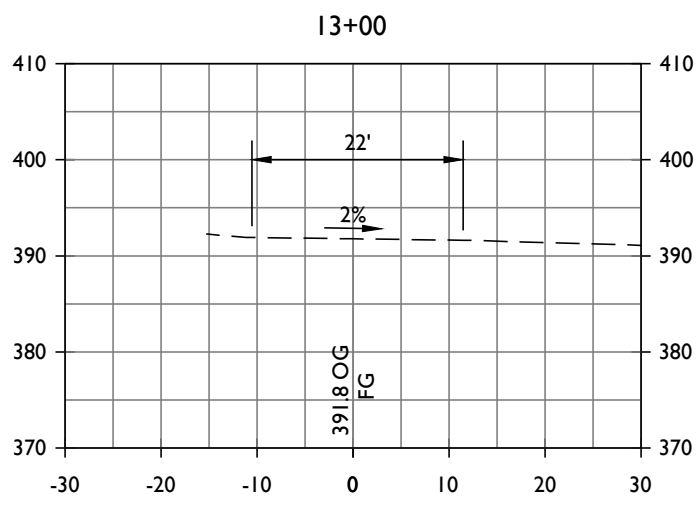
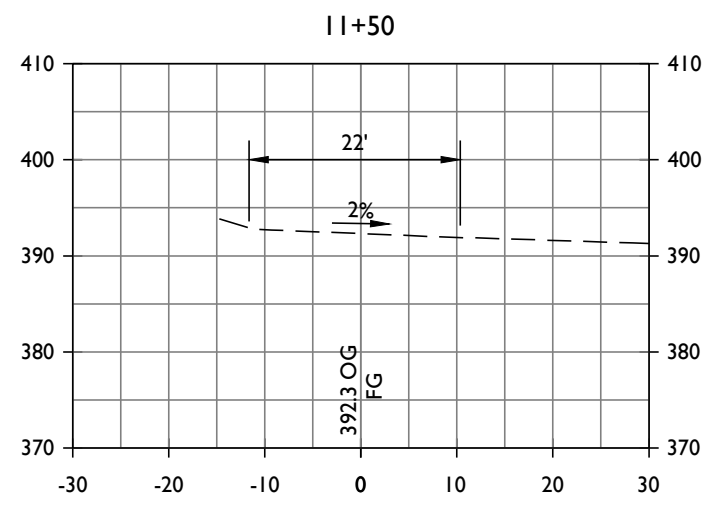
MATCHLINE STA 24+50  
SEE BELOW LEFT



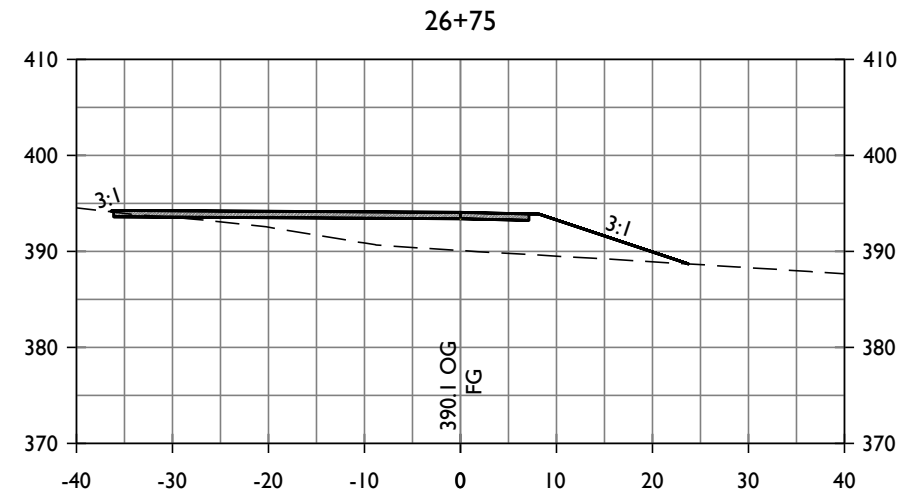
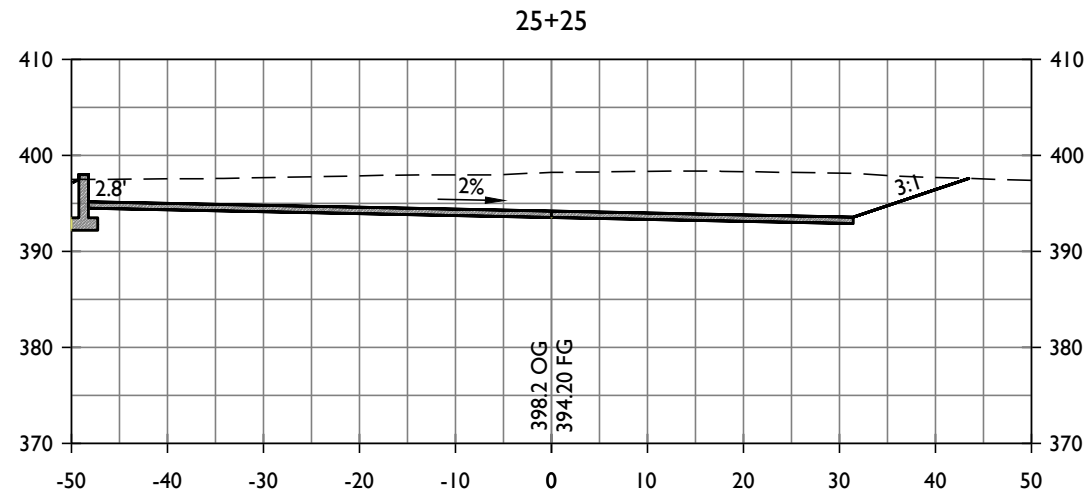
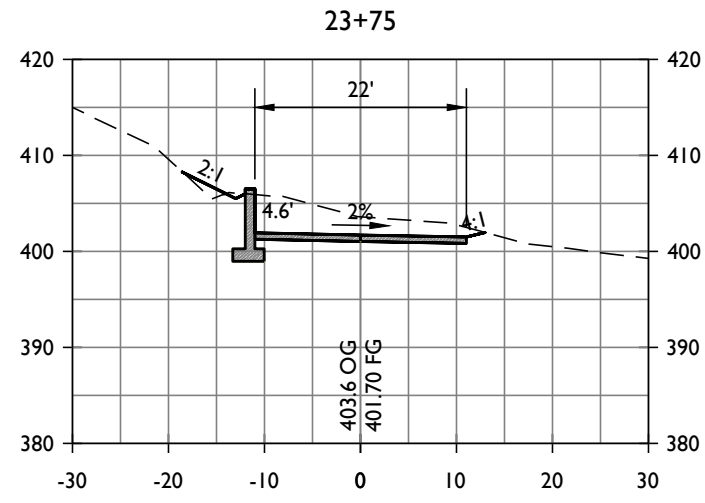
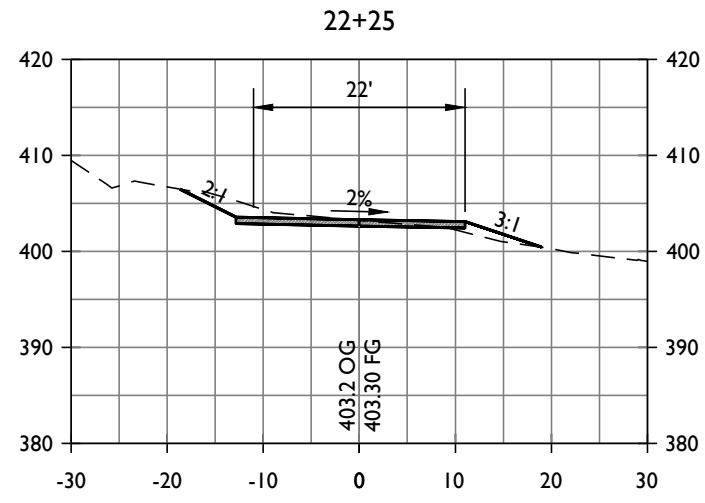
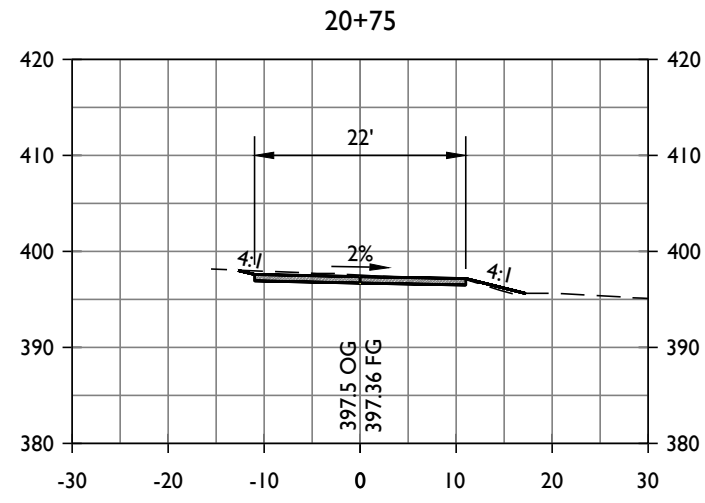
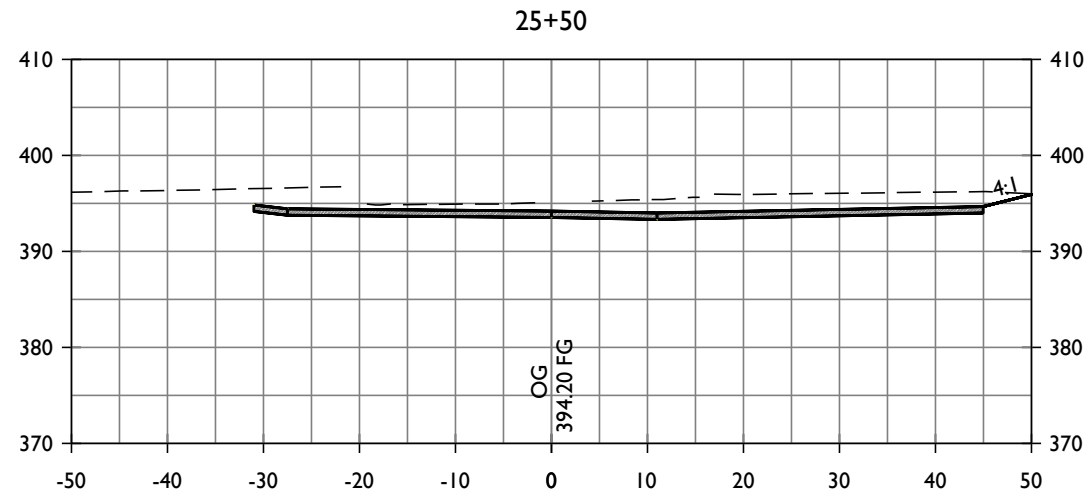
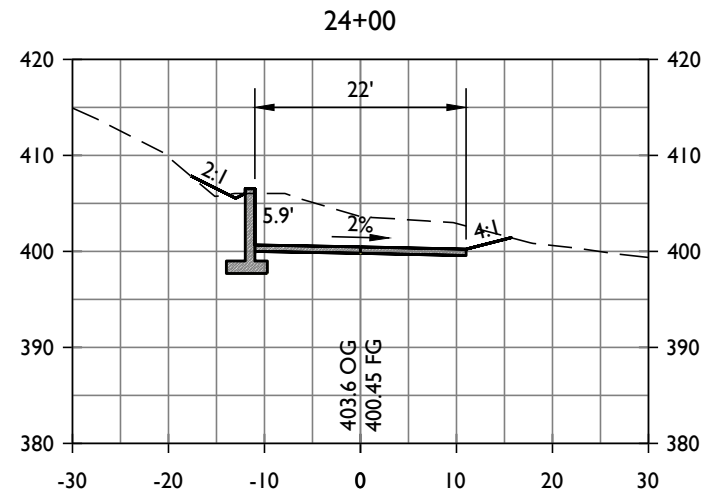
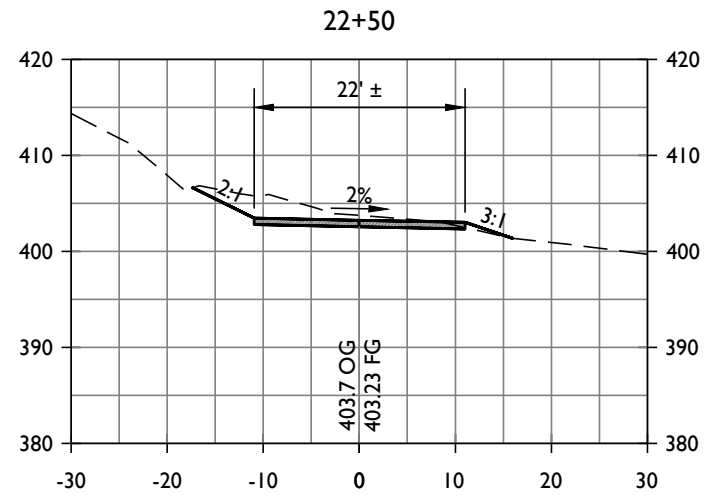
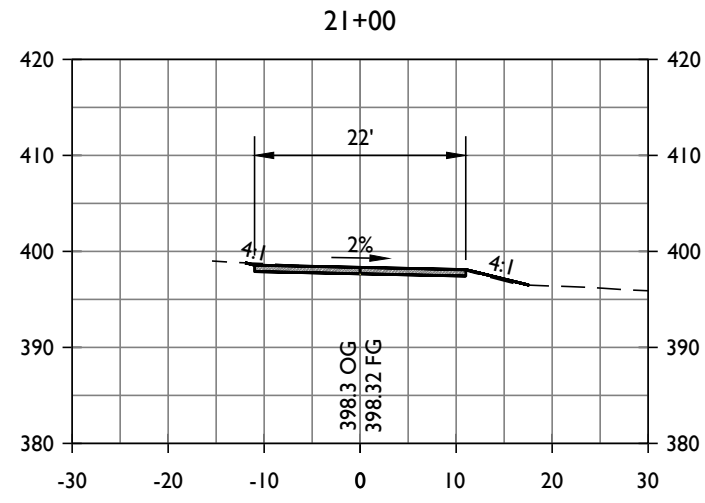
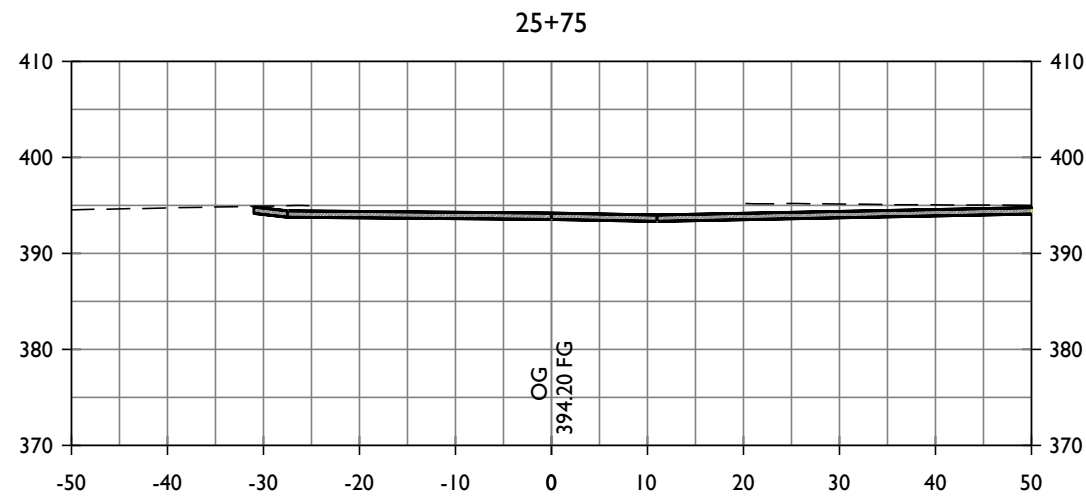
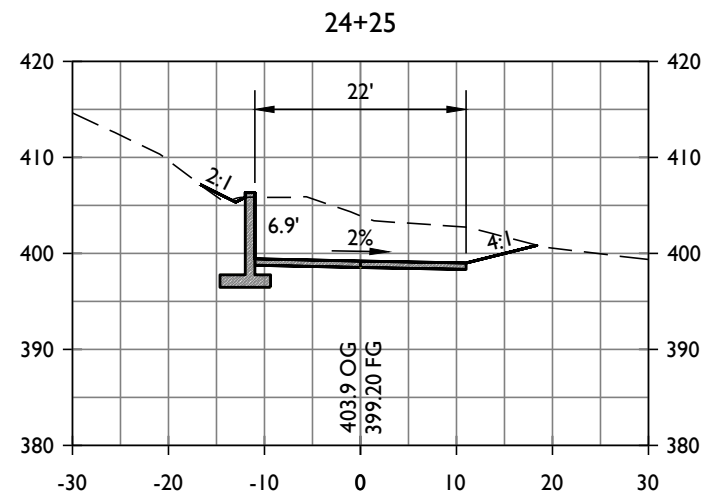
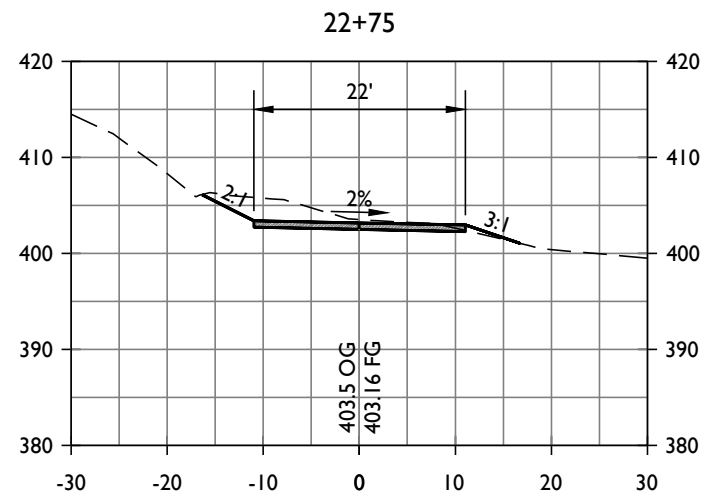
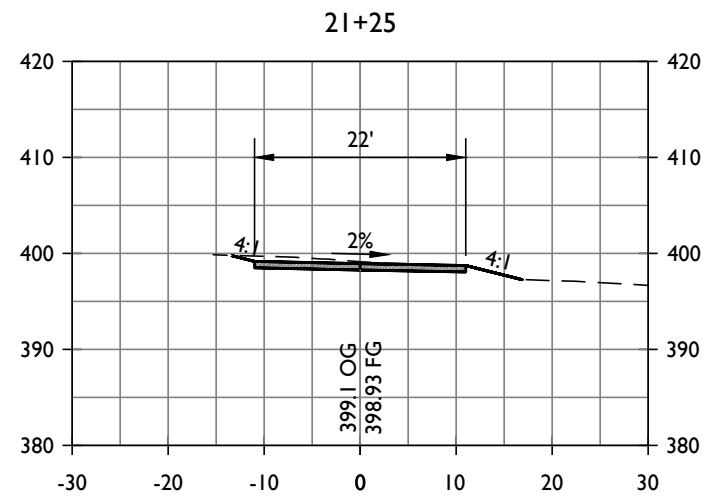
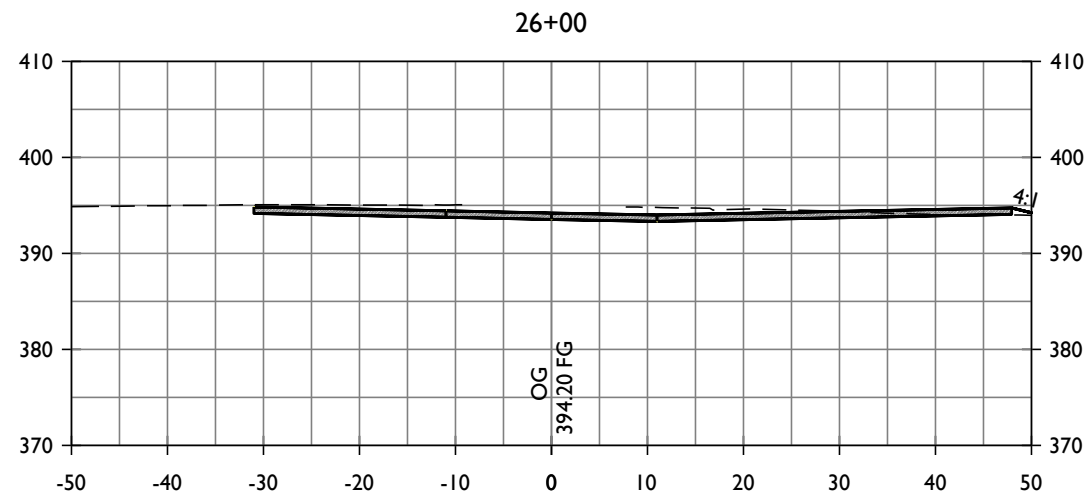
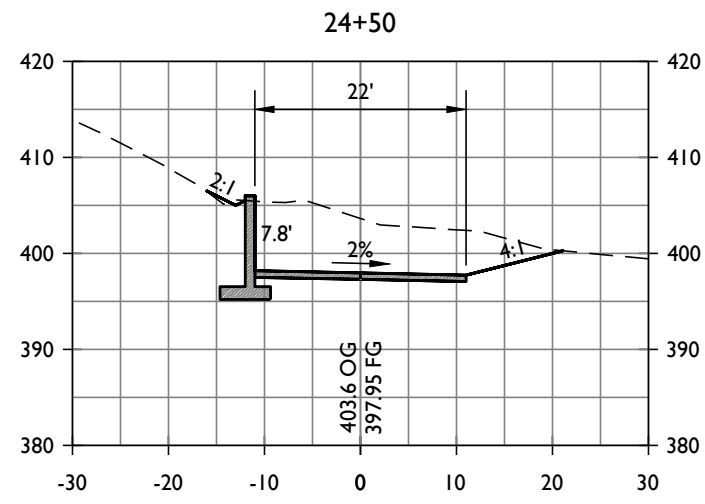
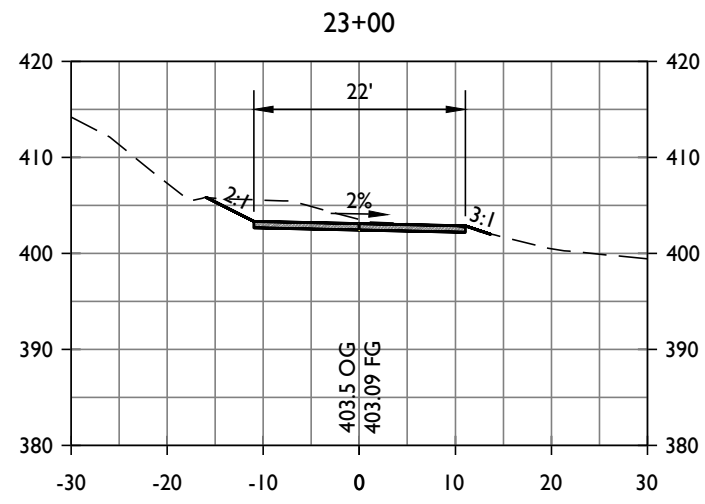
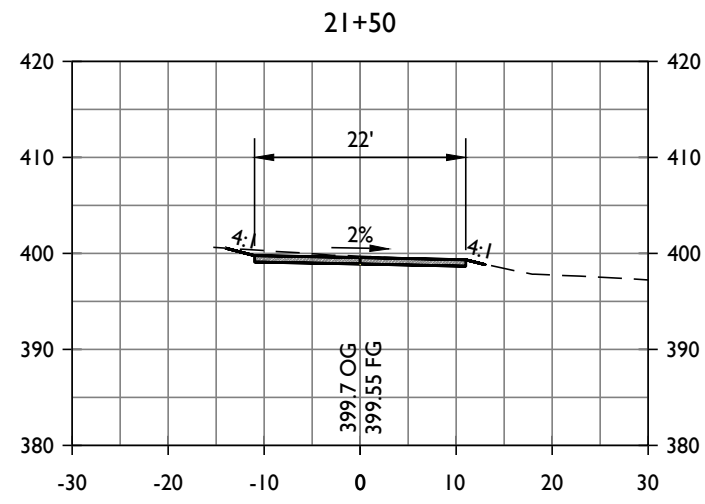
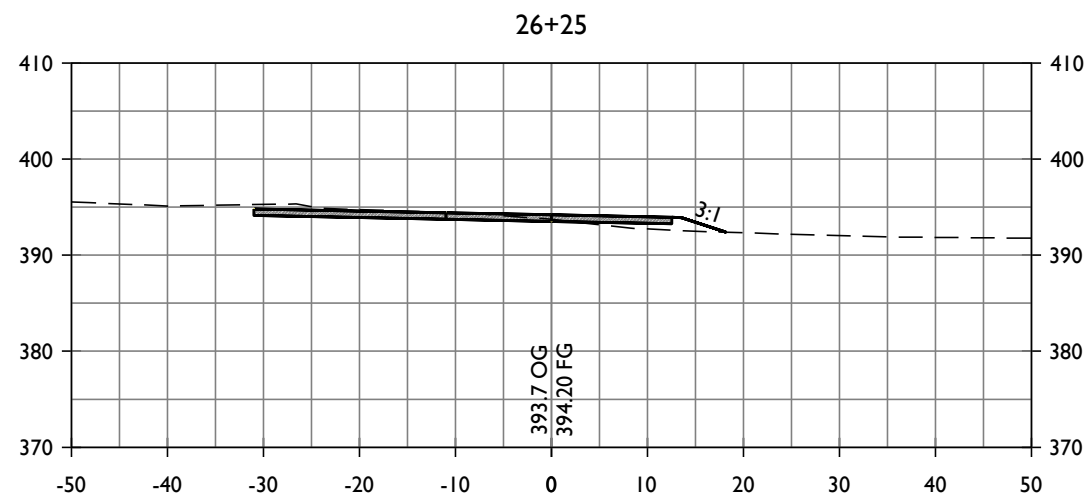
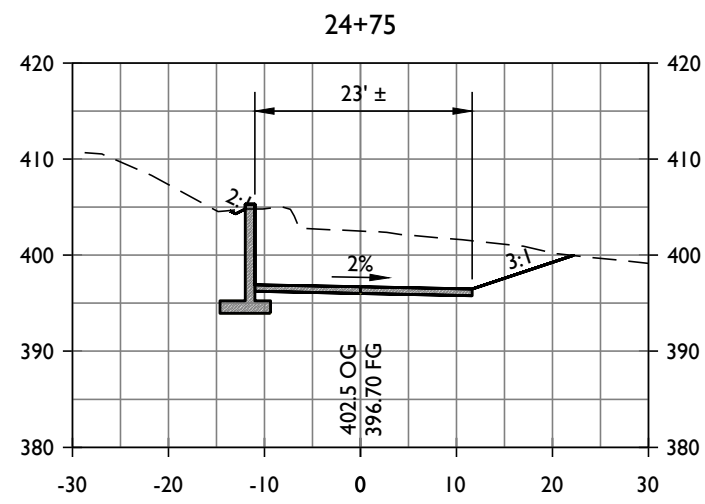
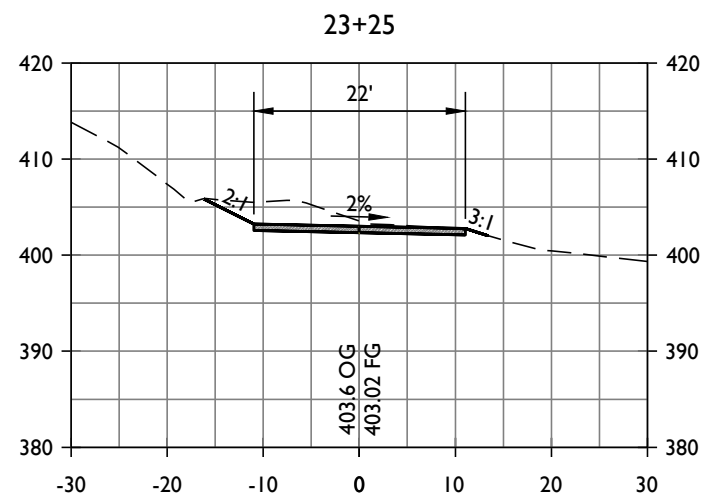
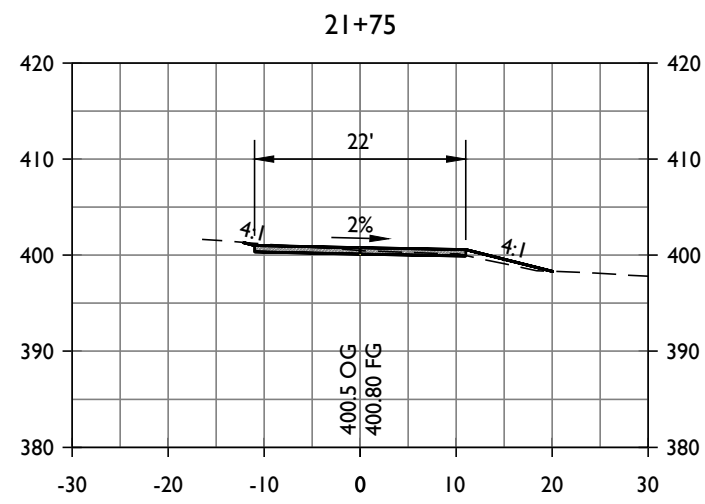
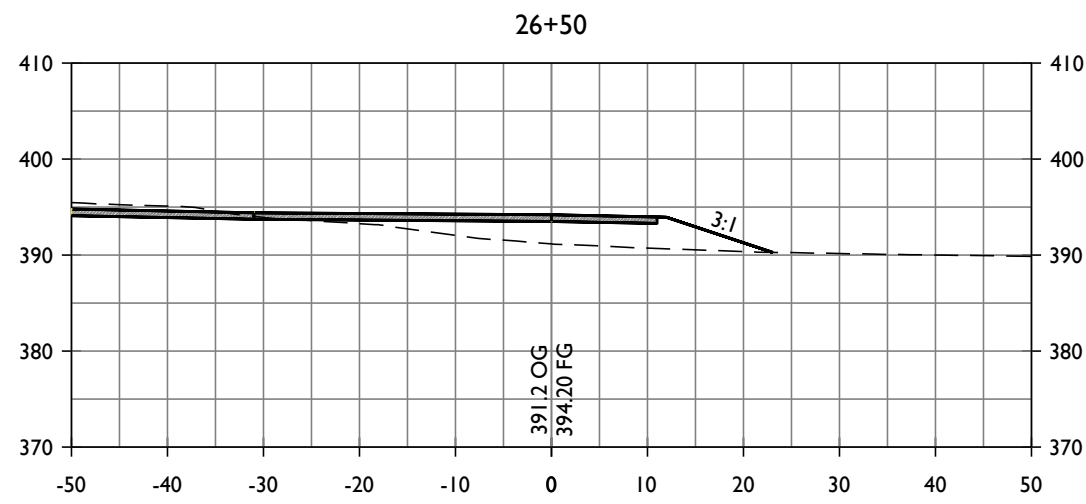
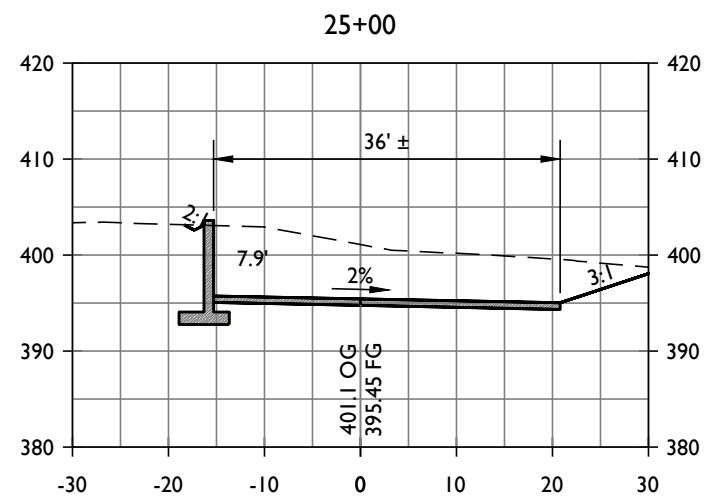
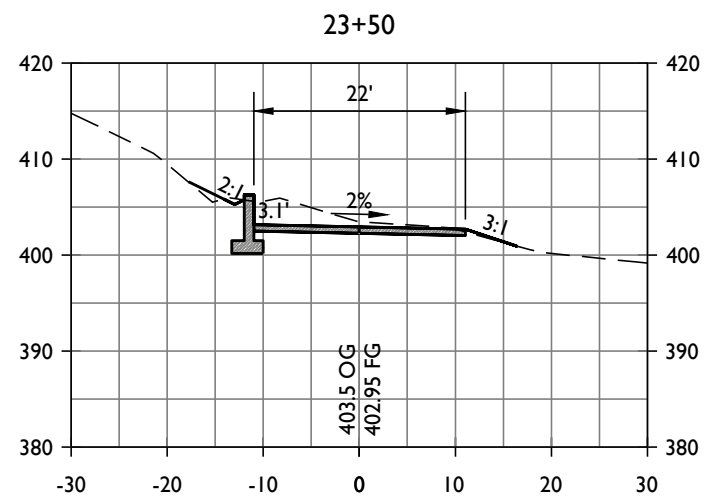
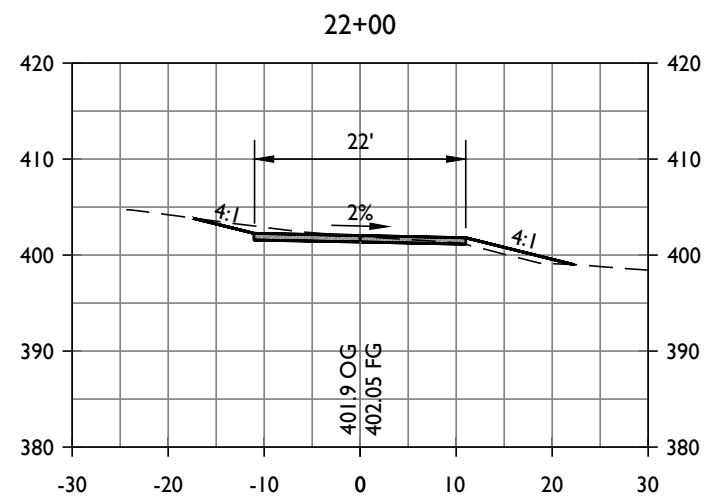
DRIVEWAY PLAN  
STA 24+50 TO STA 27+25  
SCALE: 1" = 20'



DRIVEWAY PROFILES  
STA 19+50 TO STA 27+25  
SCALE: 1" = 20'

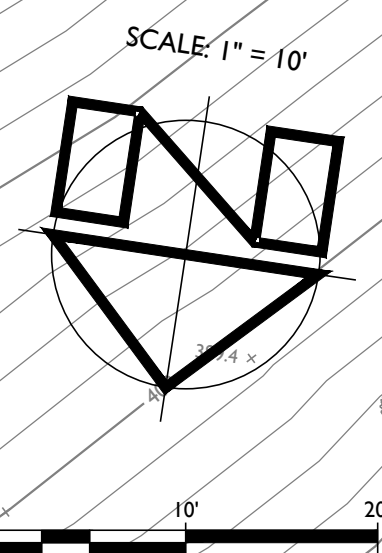
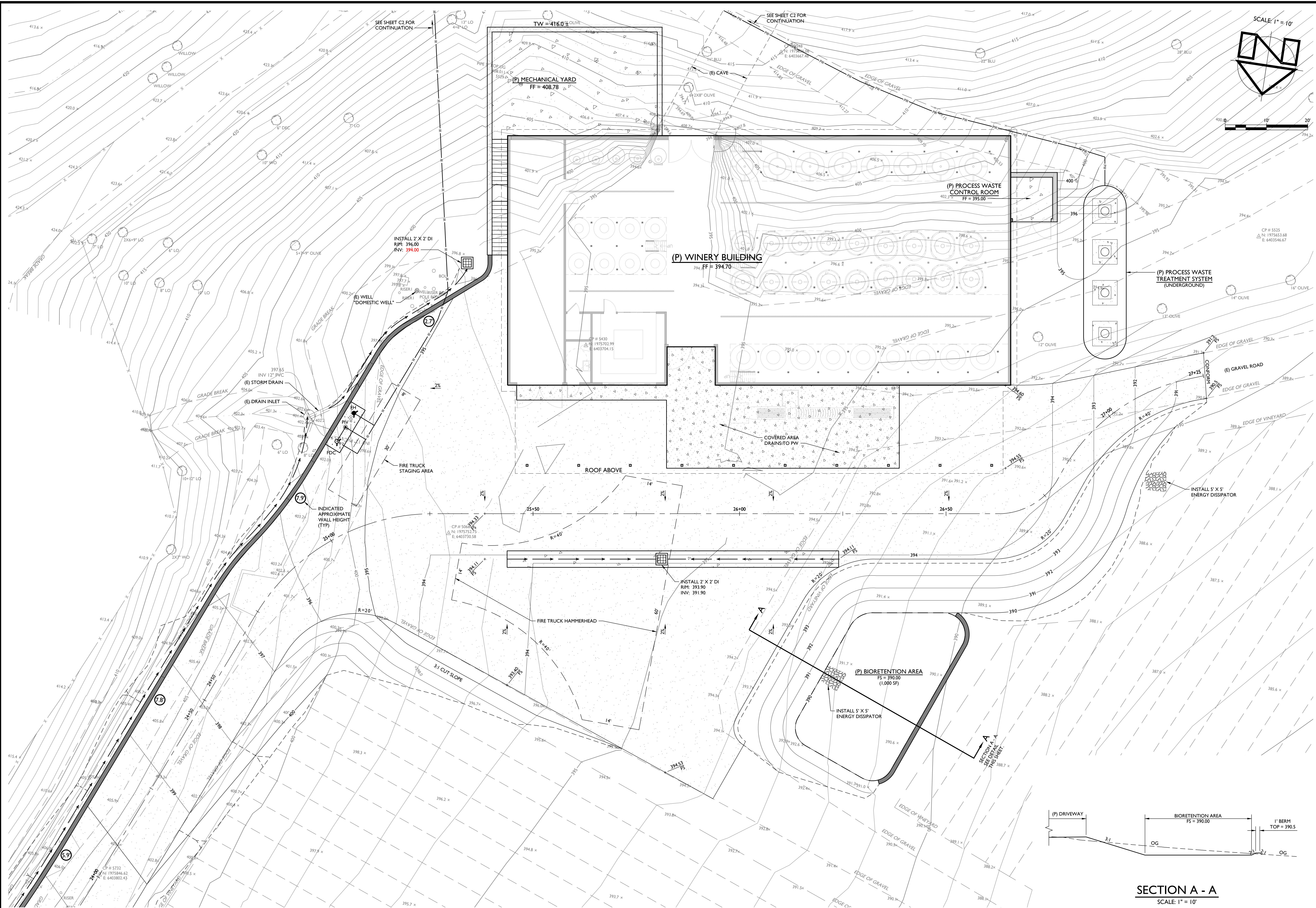


DRIVEWAY CROSS SECTIONS  
STA 10+25 TO STA 20+50  
SCALE: 1" = 20'



DRIVEWAY CROSS SECTIONS  
STA 20+75 TO 26+75  
SCALE: 1" = 20'





WINERY SITE CONCEPTUAL GRADING PLAN  
SCALE: 1" = 10'

EISELE VINEYARD  
WINERY USE PERMIT MODIFICATION CONCEPTUAL SITE IMPROVEMENT PLANS  
WINERY SITE CONCEPTUAL GRADING PLAN

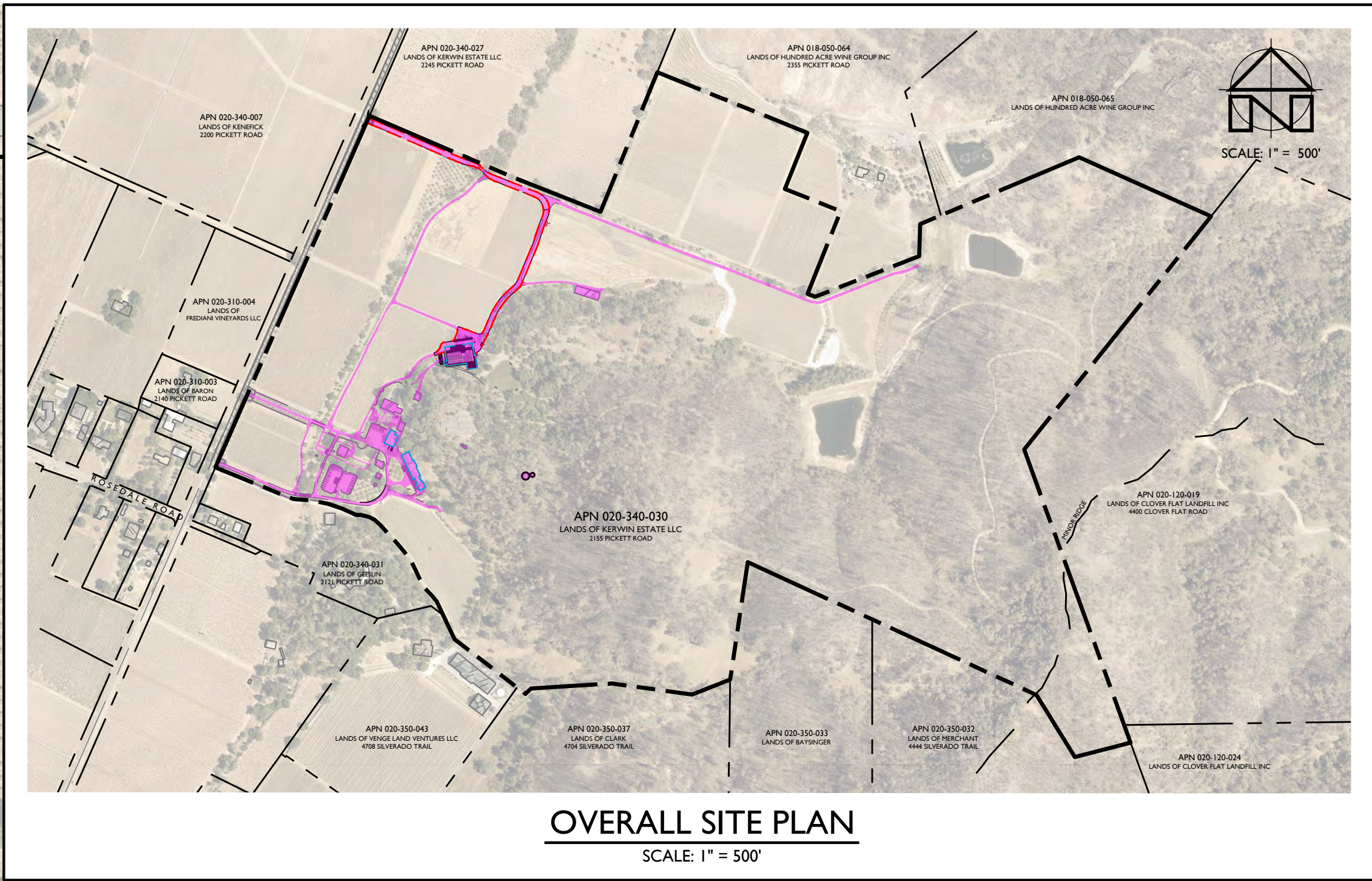
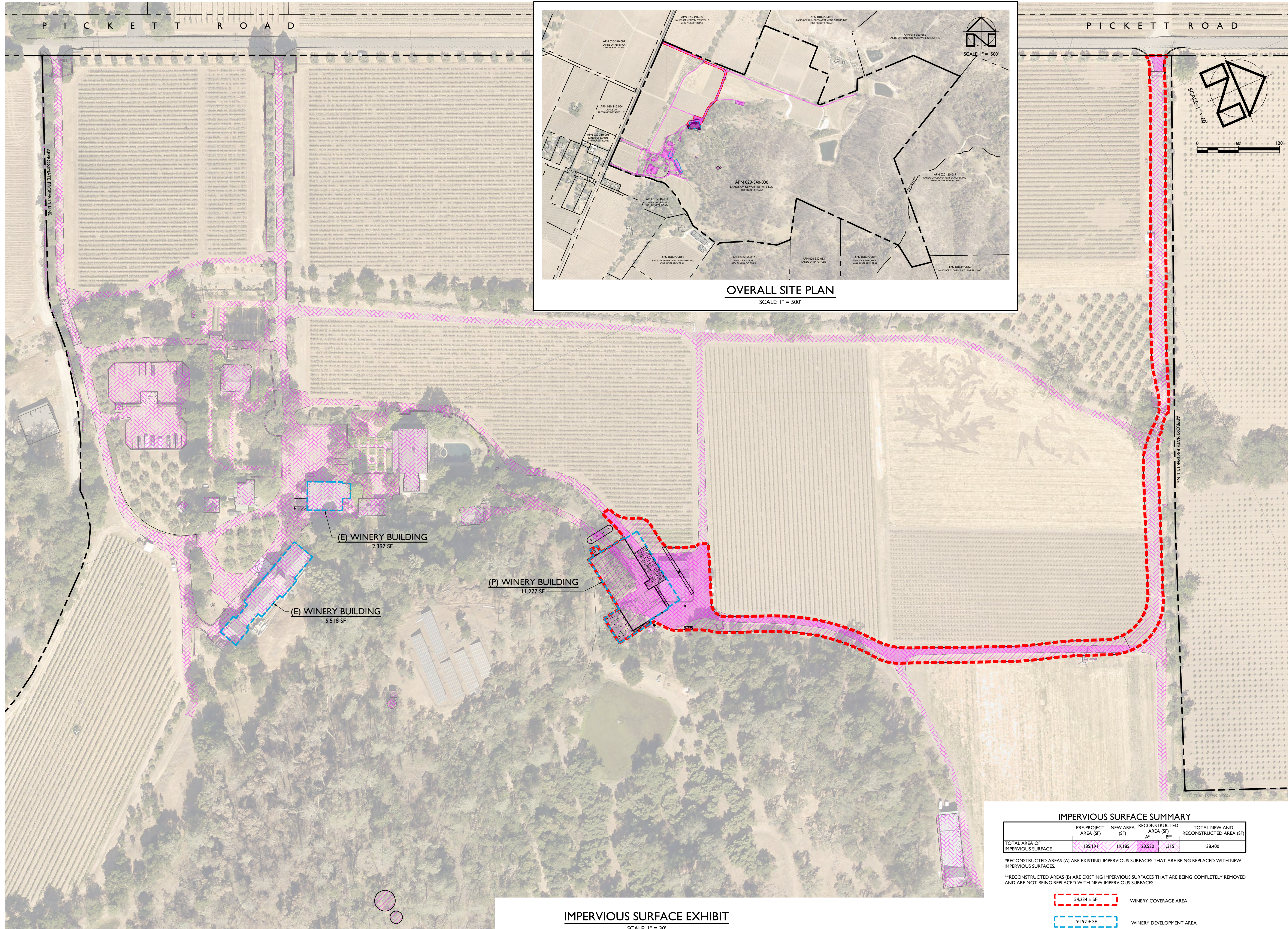
PREPARED UNDER THE DIRECTION OF:



|             |                        |
|-------------|------------------------|
| DRAWN BY:   | PowerCAD LLC           |
| CHECKED BY: | MRM                    |
| DATE:       | MAY 31, 2024           |
| REVISIONS:  | BY:                    |
| 5/31/2024   | YMS                    |
| USE PERMIT  | MODIFICATION SUBMITTAL |

|                |                     |
|----------------|---------------------|
| JOB NUMBER:    | 16-128              |
| FILE:          | 16-128CONC-GRAD.DWG |
| ORIGINAL SIZE: | 24" X 36"           |
| SHEET NUMBER:  |                     |





IMPERVIOUS SURFACE EXHIBIT  
SCALE: 1" = 30'

| IMPERVIOUS SURFACE SUMMARY          |                          |                  |                                       |                                          |
|-------------------------------------|--------------------------|------------------|---------------------------------------|------------------------------------------|
|                                     | PRE-PROJECT<br>AREA (SF) | NEW AREA<br>(SF) | RECONSTRUCTED<br>AREA (SF)<br>A** B** | TOTAL NEW AND<br>RECONSTRUCTED AREA (SF) |
| TOTAL AREA OF<br>IMPERVIOUS SURFACE | 185,191                  | 19,185           | 20,530 1,315                          | 38,400                                   |

\*RECONSTRUCTED AREAS (A) ARE EXISTING IMPERVIOUS SURFACES THAT ARE BEING REPLACED WITH NEW IMPERVIOUS SURFACES.

\*\*RECONSTRUCTED AREAS (B) ARE EXISTING IMPERVIOUS SURFACES THAT ARE BEING COMPLETELY REMOVED AND ARE NOT BEING REPLACED WITH NEW IMPERVIOUS SURFACES.

54,234 ± SF

WINERY COVERAGE AREA

19,192 ± SF

WINERY DEVELOPMENT AREA

EISELE VINEYARD  
WINERY USE PERMIT MODIFICATION CONCEPTUAL SITE IMPROVEMENT PLANS  
IMPERVIOUS SURFACE EXHIBIT

PREPARED UNDER THE  
DIRECTION OF:



DRAWN BY:  
PowerCAD LLC

CHECKED BY:  
MRM

DATE:  
MAY 31, 2024

REVISIONS: BY:  
5/31/2024 YMS  
USE PERMIT  
MODIFICATION SUBMITTAL

JOB NUMBER:  
16-128

FILE:  
16-128CONC-ISE.DWG

ORIGINAL SIZE:  
24" X 36"

SHEET NUMBER: