

# Site Management Plan

For

Mike's Farm LLC

APN 221-021-003

WDID #1\_12CC413042

Tier 2, Low Risk



PREPARED FOR

State Water Resources Control Board

PREPARED BY

Elevated Solutions LLC

3943 Walnut Dr STE E

Eureka, CA 95503

Revised by ETA Management Group, LLC

5/14/2024

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**Purpose:**

This document serves as the Site Management Plan on behalf of the discharger, Mike's Farm, LLC pursuant to Order No. WQ 2019-001-DWQ (General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for discharges of Waste Associated with Cannabis Cultivation Activities) of the California Water Code Section 13260(a).

**Tier Designation**

This property has been classified as a Tier 2, Low Risk designation.

## 1 SEDIMENT DISCHARGE BEST PRACTICAL TREATMENT OR CONTROL (BPTC)

### 1.1 Site Characteristics

#### 1.1.1 Site Overview

Elevated Solutions has been contracted by the owners of APN 221-021-003 to perform a site assessment and develop a Water Resource Protection and Site Management Plan to decrease existing and potential future sediment delivery to tributaries of the Salmon Creek (South Fork Eel River) and reduce other threats to water quality. The site plan for the property is shown on Figure 1.

In August 2019, a site visit was conducted by Elevated Solutions in which a road inventory and assessment of cultivation areas were evaluated. All site locations are shown in Appendix B and each site is described below.

- Water for agricultural use is provided by a 250,000-gallon Off-Stream Pond. Water for Domestic Use is provided by a jurisdictional shallow cistern and stores water in the rainy winter months into the 18,000-gallons of hard plastic storage.
- Mike's Farm currently has an interim permit with Humboldt County and a Provisional License with the State of California to cultivate 13,340 SF of Mixed Light Cultivation for the 2020 season.

The subject property is located off Thomas Road in Salmon Creek, CA, situated in a draw that drains into the Salmon Creek Calwater Planning watershed, tributary to the South Fork Salmon Creek, tributary to the South Fork Eel River. The property and surrounding vicinity is composed of Franciscan Complex geology consisting of Cretaceous and Jurassic sandstone with smaller amounts of shale, chert, limestone, and conglomerate as well as Franciscan mélange<sup>1</sup>. Based on NRCS soils map for the region<sup>2</sup>, the cultivation areas and proposed project components are in Yorknorth-Devilshole complex.

<sup>1</sup> California Department of Conservation, Geologic Map of California (2010), accessed online at: <http://maps.conservation.ca.gov/cgs/gmc>

<sup>2</sup> NRCS Watershed Boundary Dataset, Sub-region level, 2012.

### **1.1.2 Access Road Conditions**

Overall, the primary access roads on the property are in fair condition. The roads were processed, rocked, and out sloped in 2018 by a licensed contractor. Road systems will be evaluated after the winter rains/snow and repaired if needed to reduce any sediment delivery.

### **1.1.3 Legacy Waste Discharge Issues**

Legacy disturbance from historic timber harvest on the property prior to current ownership has been assessed and is generally limited to the currently utilized access roads. The road network and cultivation areas are inspected regularly for signs of erosion that could exacerbated the legacy waste discharge issues.

### **1.1.4 Vehicle stream crossing**

There are 0 road crossings located on this property.

## **1.2 Sediment Erosion Prevention and Sediment Capture**

### **1.2.1 Roads - Sediment and Erosion Prevention**

All roads on the property are in fair condition. The road system was processed in 2018 with rock, out slope installed, and will have rolling dips installed during the construction season in 2020. Roads will be evaluated after the winter rains/snow and repaired if needed to avoid any sediment delivery.

### **1.2.2 Cultivation Areas - Sediment and Erosion Prevention**

All cultivation sites have appropriate setbacks from watercourses and follow the BMPs. Soil pile is covered starting October 1 with plastic and the perimeter is contained with straw wattles. All dirt areas have straw applied and straw bales are placed strategically on out sloped areas to prevent any sediment delivery. Greenhouse covers have been removed and wattles have been placed around the perimeter of the structure.

### **1.2.3 Other Areas - Sediment and Erosion Prevention**

#### **1.2.3.1 Pond Treatments**

Water for agricultural use is provided by a 250,000-gallon Off-Stream Pond. Water for domestic use is provided by a jurisdictional shallow cistern located at the head of a class III stream.

### **1.2.4 Maintenance - Sediment and Erosion Prevention**

- Erosion and sediment control best management practices (BMPs) shall be installed prior to the wet season (1 October through 30 April).
- Sensitive areas and areas where existing vegetation is being preserved shall be protected with construction fencing; fencing shall be maintained throughout construction activities.
- All areas disturbed during grading activities shall be seeded with native grass seed and mulched with rice straw.

- Prior to seeding and straw, disturbed areas should be roughened by track walking with a dozer.
- Straw shall be applied at a uniform rate of approximately 4,000 lbs per acre by hand.
- At the completion of the project, straw wattles shall be placed as directed by the engineer or geologist.
- All sediment control BMPs shall be maintained throughout the wet season until new vegetation has become established on all graded areas.

## 2 FERTILIZER, PESTICIDE, HERBICIDE, AND RODENTICIDE BPTC MEASURES

### 2.1 Summary of Products Used

Nutrient/Fertilizer (N-P-K)	Annual Usage
Emerald Harvest Cali Pro Grow A (3-0-0)	8.3 gal
Emerald Harvest Cali Pro Grow A (2-2-5)	8.3 gal
Emerald Harvest Cali Pro Bloom A (3-0-3)	22.6 gal
Emerald Harvest Cali Pro Bloom B (1-4-6)	22.6 gal
Emerald Goddess Premium Plant Tonic (2-1-4)	40 gal
Emerald Harvest King Kola (.3-2-3)	35.5 gal
Emerald Harvest Root Wizard	32.8 gal
Botanicare Cal-Mag Plus (2-0-0)	83.3 gal
Emerald Harvest Sturdy Stalk (0-0-1)	83.3 gal
Fox Farm Cha Ching (9-50-10)	7.7 lbs
Fox Farm Beastie Bloomz (0-50-30)	7.7 lbs
Fox Farm Open Sesame (5-45-19)	11.7 lbs
Plant Therapy	11.7 lbs
Neem Oil	1.4 gal - Varies
Dr. Zymes Eliminator	1.4 gal - Varies
Advanced Nutrients pH Down	Varies
Advanced Nutrients pH Up	Varies

#### 2.1.1 Fertilizer

Fertilizers, potting soils, compost, and other soils and soil amendments are stored in locations and in a manner in which they cannot enter or be transported into surface waters and such that nutrients or other pollutants cannot be leached into groundwater. All soil is contained in a single pile, covered with plastic, and straw wattles have been placed around the perimeter to avoid any delivery to surface waters.

If the landowner wishes to keep fertilizers and soil amendments on the Project Site, they should continue to be stored fully under cover, off the ground, and in a stable location not exposed to the elements. All fertilizers are stored in a secure cargo shipping container with secondary containment, identified as Nutrient and Pesticide storage area. Fertilizers, potting soils, compost, and other soils and soil amendments should not be stored with petroleum products as they may be incompatible and could potentially react. All petroleum products are stored in a secure cargo shipping container with secondary containment identified as Oil and Petroleum storage area.

Applicant is required to keep detailed records of the type, timing and volume of fertilizers and/or other soil amendments you use in your operations. Observe and monitor soil moisture so watering, fertilizer and chemical applications are made only when necessary and overwatering and excess infiltration is avoided. Mike's Farm utilizes hand watering to avoid any overwatering.

### **2.1.2 Pesticide, Herbicide, and Rodenticide**

To be compliant with the Order, all pesticides, herbicides and related materials (e.g., fungicides) must be used and applied consistent with product labeling. Pesticide and herbicide storage and use on the Project Site must be closely monitored and recorded. Landowner is required to keep records (logs) of the type, timing and volume of pesticides and herbicides used in your operations.

When present, pesticides and herbicides should be stored within enclosed buildings in such a way they cannot enter or be released into surface or ground waters. They should not be stored with petroleum products as they may be incompatible and could potentially react.

## **2.2 Procedures for Storage, Mixing, and Application**

### **2.2.1 Irrigation Runoff**

Irrigation water is applied to cultivation areas at agronomic rates, so runoff is not an issue.

### **2.2.2 Spoils Management**

All spoils generated by the operations are reused on site. All soil is contained in a single pile, covered with plastic, straw wattles placed around the perimeter, and amended each year after analysis. All dirt areas in the greenhouses that are exposed are covered in straw and perimeter of greenhouses have straw wattles.

## **2.3 Procedures for Spill Prevention and Cleanup**

To prevent nutrient leaching from cultivation areas, continue to plant dense cover crops in spent pots, holes and beds to enrich soil and lock up nutrients or; 1) fully tarp any exposed soils and growing mediums in beds, pots, holes or piles; or 2) move spent soils and amendments inside or under cover to temporarily store them during the wet season (November 1 – May 15). If dense cover crops cannot be kept alive, all planted areas should be tarped to protect them from rainfall, snowmelt and subsequent infiltration and leaching of nutrients. Winterize all cultivation areas and all disturbed areas on the Project Site by placing straw wattles with biodegradable wrapping on the downslope perimeter and/or by mulching/seeding any bare soil areas on cultivation sites.

All the necessary spill prevention and clean-up materials are on site and available in the immediate vicinity of storage area. Major spills should be addressed per actions described in Section 3.3 below.

# **3 PETROLEUM PRODUCT BPTC MEASURES**

## **3.1 Summary of Products Used**

Currently, there is (1) 1000-gal tank located on-site.

### 3.2 Procedures for Storage, Mixing, and Application

All small fuel cans, generators, fuel tanks, gasoline powered garden equipment and any other items containing petroleum products in adequate secondary containment basins and store in a safe, covered, secure location (e.g. away from slopes and outside of riparian buffers). Generators and fuel are stored in a secured enclosed structure with a concrete flooring. Spill kits, fire extinguishers, and eye wash stations are located at all fuel and nutrient storage area.

### 3.3 Procedures for Spill Prevention and Cleanup

If gas or oil is spilled, immediate attention will be taken to stop the spill by turning off valves or plugging the source of the leak. If the source is a tank or any other kind of container and it is punctured, a wooden plug or a bolt will be used to prevent further leaking. Spill kits and fire extinguishers are located at the fuel/generator shed and Oil/Petroleum storage area.

After stopping the spill, the contaminated soil will be removed from the ground and contained in a bucket, pail, or other non-permeable container. All soil that has visible oil stains or petroleum odor will be dug out and contained. The contaminated soil will be disposed of in accordance with state law.

After the cleaning process is finished, the employee must submit a report of the incident describing what was spilled and the amount, how the spill was cleaned, and the steps that will be taken to prevent future spills. Illustrations or diagrams should be included to show the contaminated area, the excavation of the soil, and the kind of waste that was created. The spillage event and corrective actions will be written down in the Field Sanitation Unit Service Log and kept in our records.

In general, the following clean-up steps will be performed:

1. Any affected material is immediately disposed of in a covered waste bin.
2. The contaminated area will be marked off with caution tape or string.
3. Signs in appropriate languages will be posted at the perimeter prohibiting entry to the contaminated area.
4. People and animals will be kept out until the area is sufficiently decontaminated.
5. Any solid waste still resting on the surface will be collected, shoveled up, and removed to the waste bin.
8. The spillage event and corrective actions will be written down in the Field Sanitation Unit Service Log and kept in our records.

## 4 TRASH/REFUSE AND DOMESTIC WASTEWATER BPTC MEASURES

### 4.1 Trash/Refuse

All refuse is stored in trash containers in a secure location. It is important to utilize storage facilities which prevent animals from accessing or disturbing garbage or refuse. Garbage is removed from the property and hauled to approved County collection location at least once per month. All Trash is stored in a 10x10 secure enclosed structure.

## **4.2 Number of Employees, Visitors, or Residents at Site**

Typically, two individuals would be working during production April-October. During peak harvest periods as many as 4 individuals may be working on the property in July through October.

### **4.2.1 Human Waste**

Human waste is directed from the residence to the existing septic tank and leach field system. Mike's Farm will have the septic tank serviced during the 2020 season and service as needed.

## **5 WINTERIZATION BPTC MEASURES & SCHEDULE**

The applicant should conduct the following activities prior to the onset of measurable rainfall:

1. Ensure that the cultivation areas are either tarped or planted with thick cover crop.
2. Make sure that all cultivation related supplies and equipment are in a secure covered location per Sections 2-4 above.
3. Roads are surfaced with rolling dips and out slope installed to prevent sediment delivery.
4. oil pile is covered with plastic and straw wattles are placed around the perimeter.
5. Perform yearly maintenance on drainage features as applicable to reduce runoff concentration (i.e. handwork or small equipment work to maintain water bars, ditches, sediment catchment areas, etc.)
6. Project site is monitored monthly or after a significant rainfall event for any sign of sediment control failures.

## **6 WATER IRRIGATION AND STORAGE PLAN**

### **Water Storage and Usage**

Irrigation water for this project is sourced from an off-stream rainwater catchment pond with a total capacity of 273,715-gallons and 18,000-gallons in HDPE tank storage. Rainwater is collected from the rainwater catchment pond and fills the HDPE water storage tanks. The rainwater catchment pond is 9,100ft<sup>2</sup> and 8 feet deep and has sufficient size to collect more than enough rainwater to support the project. This rainwater catchment system will collect more water than is needed for this project. See rainwater analysis below. Water use for this project is estimated to be 155,500-gallons annually (8.17-gal/ft<sup>2</sup>). There is an additional rainwater catchment pond on the parcel that is used for aesthetic purposes and fire protection. This pond is 4,200ft<sup>2</sup> and 6 feet deep and contains 94,497-gallons of water.

## Water Infrastructure

Type/Size of infrastructure	Water Source	Use
9,100ft <sup>2</sup> rainwater catchment pond	Rain	Irrigation
1 QTY 5,000-gallon HDPE tank	Rain	Irrigation
3 QTY 3,000-gal. HDPE tank	Rain	Irrigation
1 QTY 2,000-gal. HDPE tank	Rain	Irrigation
2 QTY 1,000-gal HDPE tank	Rain	Irrigation
Direct Diversion-gravity fed	Groundwater Well	Domestic
Lower pond	Rain	Aesthetic/Fire Protection

## Annual Water Usage

Month	Cannabis water use in Gallons	Domestic Water Use in Gallons
January	0	3,000
February	0	3,000
March	0	3,000
April	11,600	3,000
May	22,500	3,000
June	26,500	3,000
July	26,600	3,000
August	26,600	3,000
September	21,700	3,000
October	20,000	3,000
November	0	3,000
December	0	6,000
<b>Totals</b>	<b>155,500-gallons</b>	<b>39,000-gallons</b>

## Rainwater Catchment Analysis

Irrigation water for this project is sourced from an off-stream rainwater catchment pond with 18,000-gallons in HDPE tank storage. Rainwater is collected from the rainwater catchment pond and fills the HDPE water storage tanks. A rainwater catchment analysis was completed using [prism.oregonstate.edu/explorer](http://prism.oregonstate.edu/explorer) to analyze the capability of the rainwater catchment to capture sufficient water for the project. The rainwater catchment surface is 9,100ft<sup>2</sup>. The average rainfall was taken from the lowest rainfall years from the past 30 years (1991-2021), which were 1991 at 57.29", 2013 at 31.61" and 2020 at 50.34". Average rainfall amount is 46.41".

The rainwater catchment system will collect rainwater in the off-stream rainwater catchment pond. Rainwater catchment surface  $9,100\text{ft}^2 \times 46.41 \times 0.6234 = 263,281$ -gallons annually can be collected from this system.

Water use for this project is 155,500-gallons. This water system will provide more than enough water to serve the project.

# PLOT PLAN

## APN 221-021-003

### HUMBOLDT COUNTY, CA

OWNER:  
DIMO FOLEV  
5500 DOWDELL AVE, APT #246  
ROHNERT PARK, CA 94928  
(202) 372-6977  
DIMOFOLEV84@GMAIL.COM

AGENT:  
JOEL MONSCHKE PE  
STILLWATER SCIENCES  
850 G STREET, SUITE K  
ARCATA, CA 95521  
707-496-7075  
JMONSCHKE@STILLWATERSCI.COM

**PROJECT NOTES:**

APN 221-021-003: <E> 14,930 SF OUTDOOR CULTIVATION AREA  
<E> 4,100 SF MIXED LIGHT CULTIVATION AREA

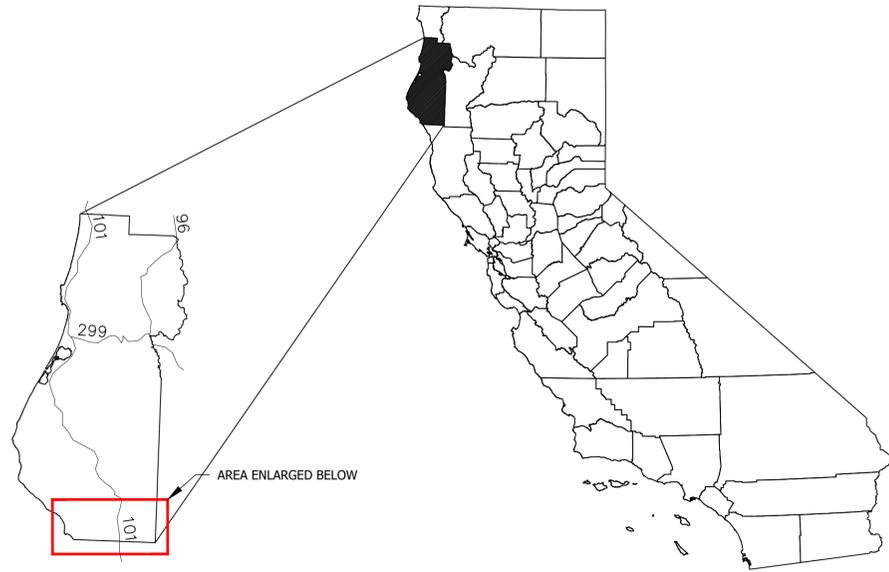
**POND NOTES:**

- 200,000 GALLONS <E>
- 200,000 GALLONS <E>
- WATER SOURCE TO FILL EXISTING & PROPOSED POND: RAINWATER CATCHMENT
- WATER USE FOR EXISTING & PROPOSED POND: IRRIGATION & FIRE SUPPRESSION

**ADDITIONAL NOTES:**

- PARCEL EXTENT TAKEN FROM HUMBOLDT COUNTY GIS AND ASSESSORS PARCEL MAPS; MODIFIED BASED ON FIELD CONDITIONS; APPROXIMATE ONLY.
- SLOPE DIRECTION AND GRADIENT CAN BE DETERMINED USING SCALE BAR AND UNDERLYING USGS TOPO MAP (40' CONTOUR INTERVALS); SLOPES TYPICALLY RANGE FROM 0% TO 40%.
- NO SCHOOLS, BUS STOPS, PLACES OF WORSHIP, PUBLIC PARKS, OR TRIBAL CULTURAL RESOURCES WITHIN 600' OF PROPERTY.
- ALL ROADS AND PARKING AREAS SURFACED WITH GRAVEL, MAIN COMMUNITY ROAD THROUGH PROPERTY ~16' - 20' WIDTH, 0-16% GRADE; PRIVATE DRIVEWAYS ~12' - 14' WIDTH 0-25% GRADE.
- NO RESIDENCES EXIST WITHIN 300 FEET OF THE SITE.
- BUILDINGS LABELED ON SHEET 2 IF THEY WILL BE USED FOR ANY CULTIVATION OR PROCESSING ACTIVITY.

CALIFORNIA LOCATION MAP



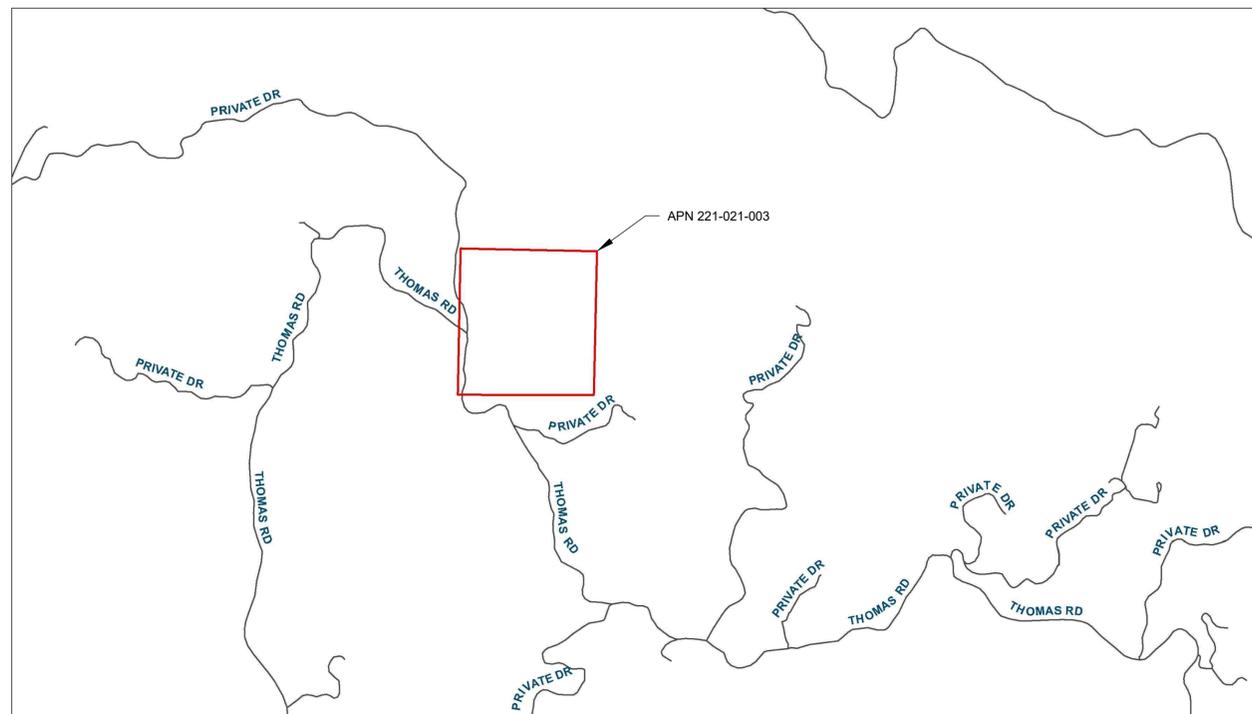
HUMBOLDT COUNTY MAP  
NTS

CALIFORNIA MAP  
NTS

REGIONAL LOCATION MAP



VICINITY LOCATION MAP



PROJECT NUMBER: 546.50  
SCALE: AS NOTED  
DATE: 4/17/2020

DESIGN: CL  
DRAWN: CL  
CHECKED: JM  
APPROVED: JM



TITLE SHEET

LAST SAVED: 4/17/2020 PLOT DATE: 4/17/2020 PLOT STYLE: ----- IF BAR CODES NOT MEASURE 1" DRAWING IS NOT TO SCALE - ADJUST ACCORDINGLY



# GRADING PLANS

## APN 221-021-003

### HUMBOLDT COUNTY, CA

APN 221-021-003  
GRADING PLANS

HUMBOLDT COUNTY, CALIFORNIA

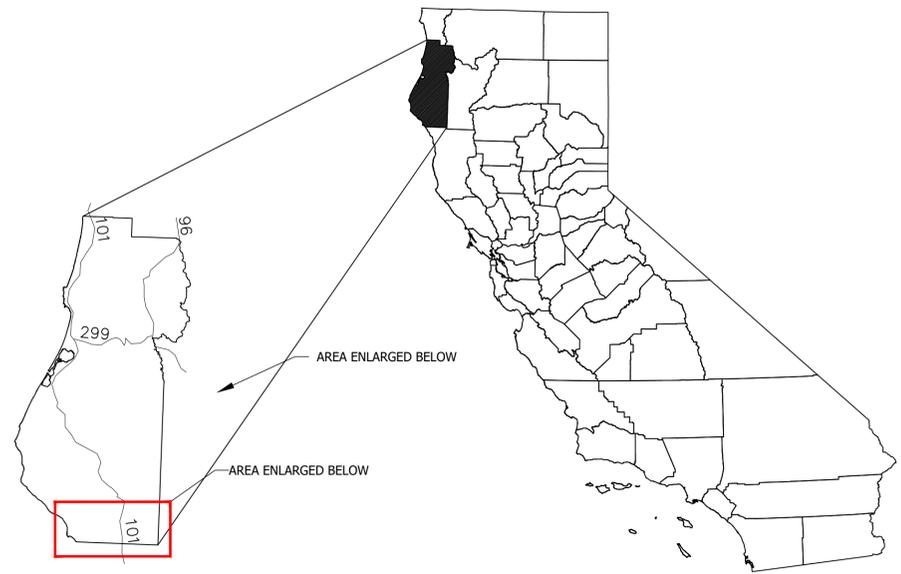
**Stillwater Sciences**

2855 TELEGRAPH AVENUE, SUITE 400  
BERKELEY, CA 94705 P: (510) 848-8098

OWNER:  
WILLIAM ERIC JAMES WICKERSHAM  
430 CAMBRIDGE AVENUE  
PALO ALTO, CA  
650-455-8764  
ERICWICKERSHAM1@YAHOO.COM

AGENT:  
JOEL MONSCHKE PE  
STILLWATER SCIENCES  
850 G STREET, SUITE K  
ARCATA, CA 95521  
707-496-7075  
JMONSCHKE@STILLWATERSCI.COM

CALIFORNIA LOCATION MAP



HUMBOLDT COUNTY MAP  
NTS

CALIFORNIA MAP  
NTS

**POND NOTES:**

1. 200,000 GALLONS <E>
2. 150,000 GALLONS <P>
3. WATER SOURCE TO FILL EXISTING & PROPOSED POND:  
RAINWATER CATCHMENT
4. WATER USE FOR EXISTING & PROPOSED POND:  
IRRIGATION & FIRE SUPPRESSION

**ENGINEER'S APPROVAL REQUIRED:**

UPON COMPLETION OF THE PROJECT, ENGINEER OF RECORD WILL SUBMIT A LETTER OF CERTIFICATION TO THE HUMBOLDT COUNTY BUILDING DEPARTMENT CONFIRMING THAT THE PROJECT MEETS ALL OF THE REQUIREMENTS DETAILED IN THE APPROVED R2 SOILS REPORT, AS WELL AS THE GRADING, EROSION AND SEDIMENT CONTROL PLANS.

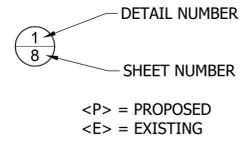
**PROJECT NOTES:**

**EARTHWORK**  
<P> POND - 500 CY CUT/425 CY FILL  
<P> SHOP PAD - 300 CY CUT/375 CY FILL  
TOTAL NEW GRADING - 800 CY CUT/FILL (BALANCED ON-SITE)  
<E> FLAT 1 - 175 CY CUT/FILL  
<E> FLAT 2 - 200 CY CUT/FILL  
<E> POND - 800 CY CUT/FILL  
TOTAL RETROACTIVE GRADING - 1,175 CY CUT/FILL (BALANCED ON-SITE)

**ADDITIONAL NOTES:**

1. PARCEL EXTENT TAKEN FROM HUMBOLDT COUNTY GIS AND ASSESSORS PARCEL MAPS; MODIFIED BASED ON FIELD CONDITIONS; APPROXIMATE ONLY.
2. SLOPE DIRECTION AND GRADIENT CAN BE DETERMINED USING SCALE BAR AND UNDERLYING USGS TOPO MAP (40' CONTOUR INTERVALS); SLOPES TYPICALLY RANGE FROM 0% TO 40%.
3. NO SCHOOLS, BUS STOPS, PLACES OF WORSHIP, PUBLIC PARKS, OR TRIBAL CULTURAL RESOURCES WITHIN 600' OF PROPERTY.
4. ALL ROADS AND PARKING AREAS SURFACED WITH GRAVEL. MAIN COMMUNITY ROAD THROUGH PROPERTY ~18' - 20' WIDTH, 0-16% GRADE; PRIVATE DRIVEWAYS ~12' - 14' WIDTH 0-25% GRADE.

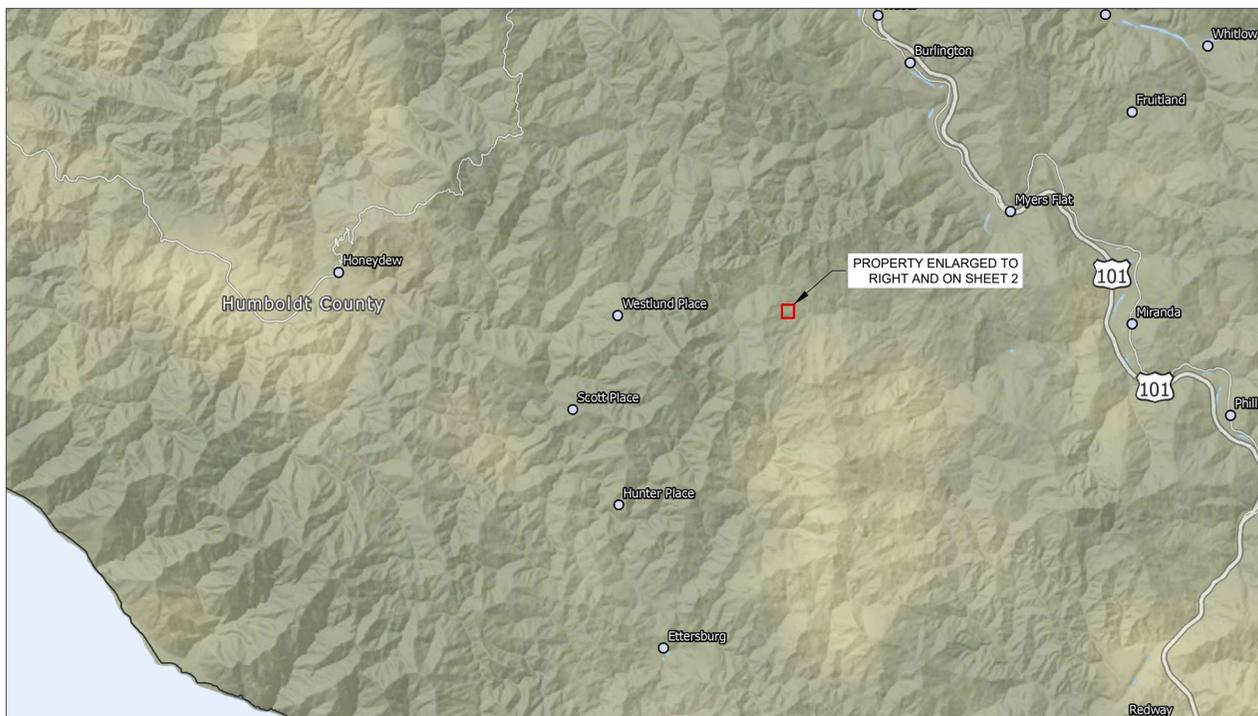
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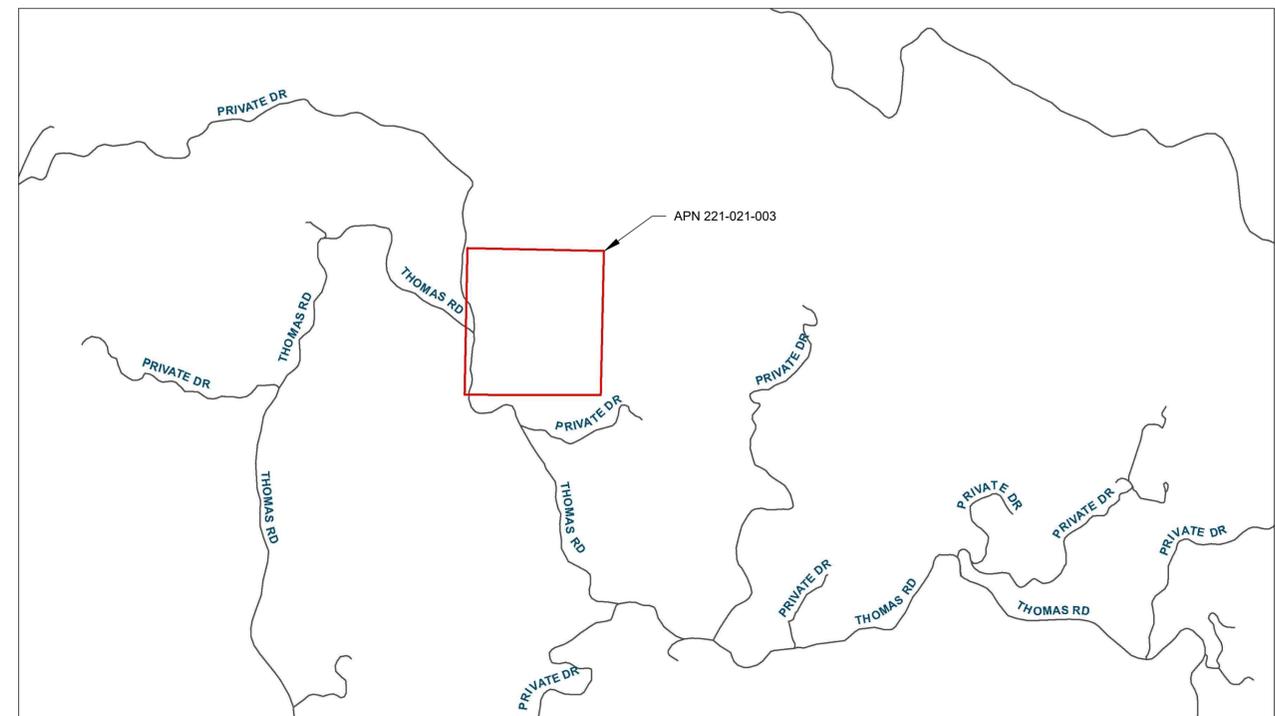
**ROCK QUANTITIES**  
BACKING ROCK (0.5'Ø TO 1'Ø): <E> POND - 10 CY  
<P> POND - 10 CY  
OTHER EROSION STABILIZATION - 60 CY

Sheet List Table	
Sheet Number	Sheet Title
1	TITLE SHEET
2	SITE PLAN
3	SITE OVERVIEW
4	POND RETROACTIVE GRADING PLAN
5	PROPOSED POND GRADING PLAN
6	FLAT 1 RETROACTIVE GRADING PLAN
7	FLAT 2 RETROACTIVE GRADING PLAN
8	GARAGE PAD GRADING PLAN
9	DETAILS

REGIONAL LOCATION MAP



VICINITY LOCATION MAP:



PROJECT NUMBER: 546.26  
SCALE: AS NOTED  
DATE: 3/27/2017

DESIGN: CL  
DRAWN: CL  
CHECKED: JM  
APPROVED: JM

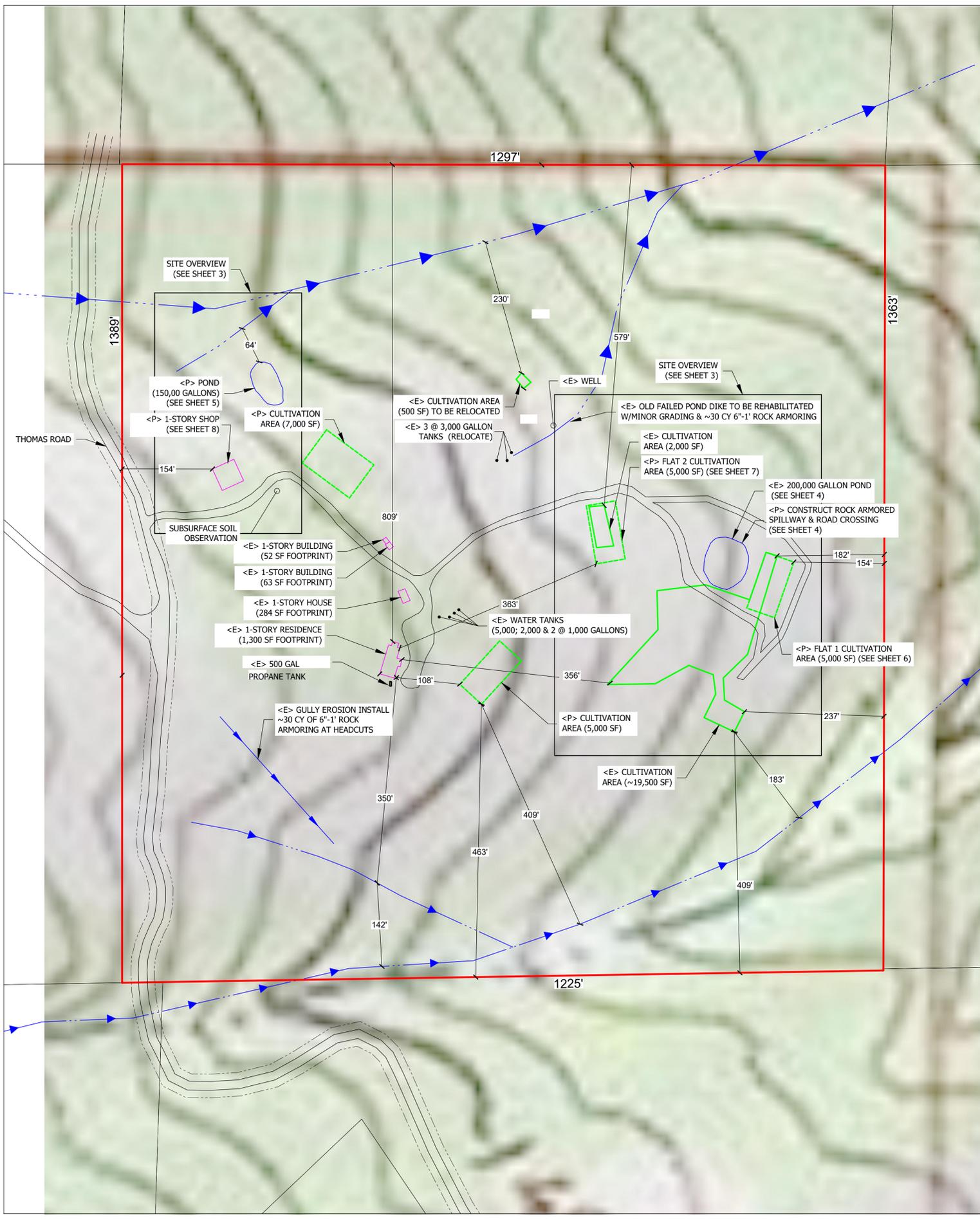


TITLE SHEET

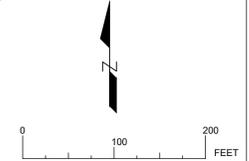
LAST SAVED: 3/27/2017 PLOT DATE: 3/27/2017 PLOT STYLE: ...

**GENERAL PROJECT AND GRADING NOTES:**

- DESIGN INTENT.** THESE DRAWINGS REPRESENT THE GENERAL DESIGN INTENT TO BE IMPLEMENTED AND CONTRACTOR IS RESPONSIBLE FOR ALL ITEMS SHOWN ON THESE PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE ENGINEER FOR ANY CLARIFICATIONS OR FURTHER DETAILS NECESSARY TO ACCOMMODATE ACTUAL SITE CONDITIONS. ANY DEVIATION FROM THESE PLANS WITHOUT THE LANDOWNER AND ENGINEER'S APPROVAL ARE AT THE CONTRACTOR'S OWN RISK AND EXPENSE. NOTIFY ENGINEER IMMEDIATELY OF ANY UNEXPECTED AND CHANGED CONDITIONS, SAFETY HAZARDS, AND ENVIRONMENTAL PROBLEMS ENCOUNTERED.
- JOB SITE CONDITIONS AND CONTRACTOR RESPONSIBILITY.** CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR SITE CONDITIONS DURING THE COURSE OF THE CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY, AND ALL ENVIRONMENTAL PROTECTION ELEMENTS, WHETHER SHOWN ON THESE DRAWINGS OR NOT. CONTRACTOR SHALL FOLLOW ALL APPLICABLE CONSTRUCTION AND SAFETY REGULATIONS. THESE REQUIREMENTS SHALL APPLY CONTINUOUSLY AND WILL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE LANDOWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FROM LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE LANDOWNER OR ENGINEER.
- DAMAGE.** CONTRACTOR SHALL EXERCISE CARE TO AVOID DAMAGE TO EXISTING PUBLIC AND PRIVATE PROPERTY, INCLUDING NATIVE TREES AND SHRUBS, AND OTHER PROPERTY IMPROVEMENTS. IF CONTRACTOR CAUSES DAMAGES TO SUCH ITEMS, HE SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT IN LIKE NUMBER, KIND, CONDITION, AND SIZE. ANY SUCH COST MAY BE DEDUCTED BY OWNER FROM MONIES DUE CONTRACTOR UNDER THIS CONTRACT.
- SOILS REPORT.** ALL CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH THE SOILS REPORT PREPARED FOR THIS PROPERTY.
- LIMITS OF WORK, ACCESS, STAGING AND MOBILIZATION AREAS.** EXACT LIMITS OF WORK, POINTS OF INGRESS-EGRESS, MOBILIZATION, STAGING, AND WORK AREAS WILL BE IDENTIFIED IN THE FIELD BY THE LANDOWNER AND/OR ENGINEER.
- EARTHWORK QUANTITIES.** CONTRACTOR IS RESPONSIBLE FOR ALL EARTHWORK, INCLUDING GRADING, PROVISION AND PLACEMENT OF ROCK MEETING SIZE LIMITS, AS SHOWN ON DRAWINGS, AND DISPOSAL OF ALL EXCESS SOIL AND RUBBLE. EARTHWORK QUANTITIES, INCLUDING GRADING, PLACED ROCK RIP-RAP QUANTITY ESTIMATES PROVIDED BY THE ENGINEER ARE ESTIMATES ONLY. LANDOWNER AND ENGINEER DO NOT, EXPRESSLY OR OTHERWISE BY IMPLICATION, EXTEND ANY WARRANTY TO EARTHWORK CALCULATIONS.
- AREAS TO BE GRADED SHALL BE CLEARED OF ALL VEGETATION INCLUDING ROOTS AND OTHER UNSUITABLE MATERIAL FOR A STRUCTURAL FILL, THEN SCARIFIED TO A DEPTH OF 6 INCHES PRIOR TO PLACING OF ANY FILL.
- AREAS WITH EXISTING SLOPES WHICH ARE TO RECEIVE FILL MATERIAL SHALL BE KEYED AND BENCHED.
- FILL MATERIAL SHALL BE SPREAD IN LIFTS NOT EXCEEDING 12 INCHES IN COMPACTED THICKNESS, MOISTENED OR DRIED AS NECESSARY TO NEAR OPTIMUM MOISTURE CONTENT AND COMPACTED BY AN APPROVED METHOD. FILL MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 90% MAXIMUM DENSITY AS DETERMINED BY 1957 ASTM D - 1557 - 91 MODIFIED PROCTOR (AASHTO) TEST OR SIMILAR APPROVED METHODS.
- CUT AND FILL SLOPES SHALL NOT EXCEED A GRADE OF 2 HORIZONTAL TO 1 VERTICAL EXCEPT WHEN SHOWN ON PLANS. ALL DISTURBED GROUND SHALL BE PLANTED WITH NATIVE GRASS SEED AND MULCHED. SEE SHEET 6 FOR ADDITIONAL DETAILS.
- BEST MANAGEMENT PRACTICES FOR CONSTRUCTION ACTIVITIES: ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ONSITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES, OR WIND. STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER. FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO PUBLIC WAY OR ANY OTHER DRAINAGE SYSTEM. TRASH AND CONSTRUCTION RELATED SOLID WASTE MUST BE DEPOSITED INTO A COVERED WASTE RECEPTACLE TO PREVENT CONTAMINATION OF RAINWATER AND DISPERSAL BY WIND. SEDIMENTS AND OTHER MATERIAL MAY NOT BE TRACKED FROM TO THE SITE BY VEHICLE TRAFFIC. SEE SHEET 7 FOR ADDITIONAL DETAILS.



LEGEND			
	CLASS 2 TRIBUTARY		POND
	CLASS 3 TRIBUTARY		CROSSING/ POINT OF DIVERSION
	ROADS		EASEMENT OF RECORD
	STRUCTURES		SEPTIC TANK AND LEACH FIELD
	PRIMARY PARCELS	<b>NOTES:</b> 1. ALL FEATURE LOCATIONS ARE APPROXIMATE ONLY 2. LIST OF ABBREVIATIONS: <E> = EXISTING <P> = PROPOSED 3. 40' CONTOURS FROM USGS.	
	ADJACENT PARCELS		
	<E> CULTIVATION AREAS		
	<P> CULTIVATION AREAS		



PROJECT NUMBER: 546.26  
SCALE: AS NOTED  
DATE: 3/27/2017

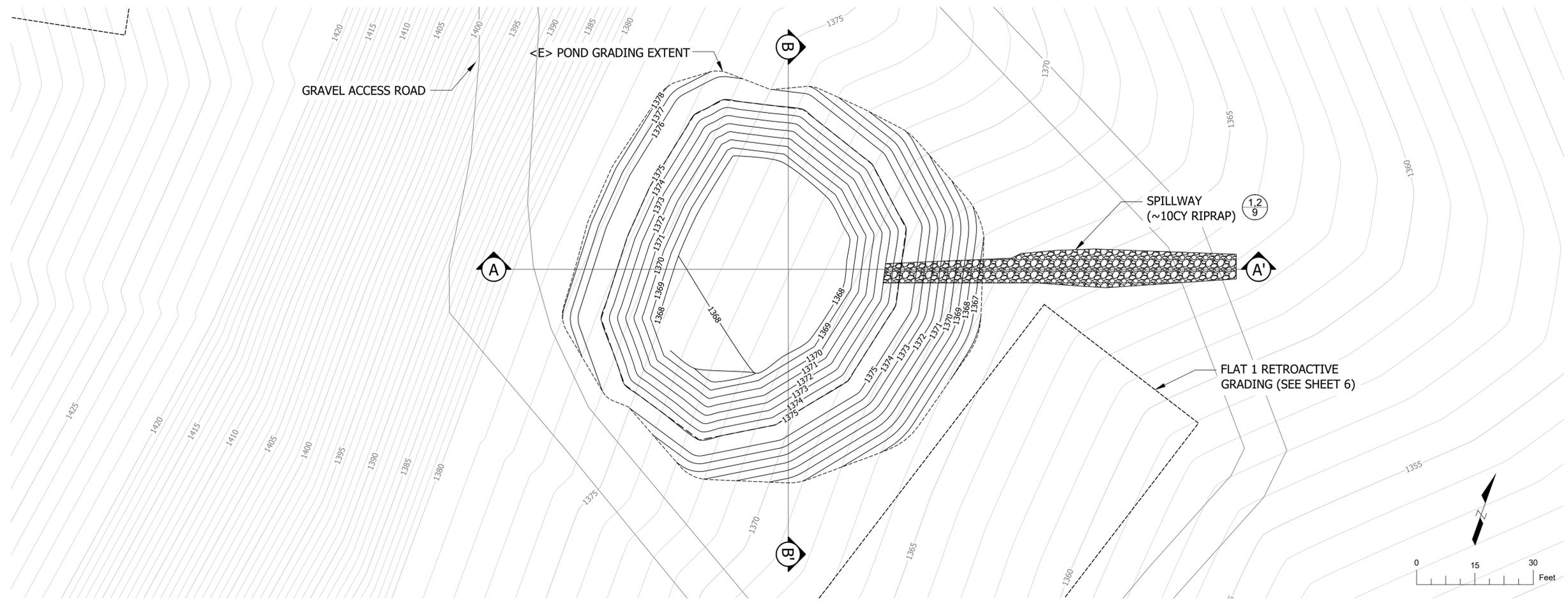
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APPROVED: JM



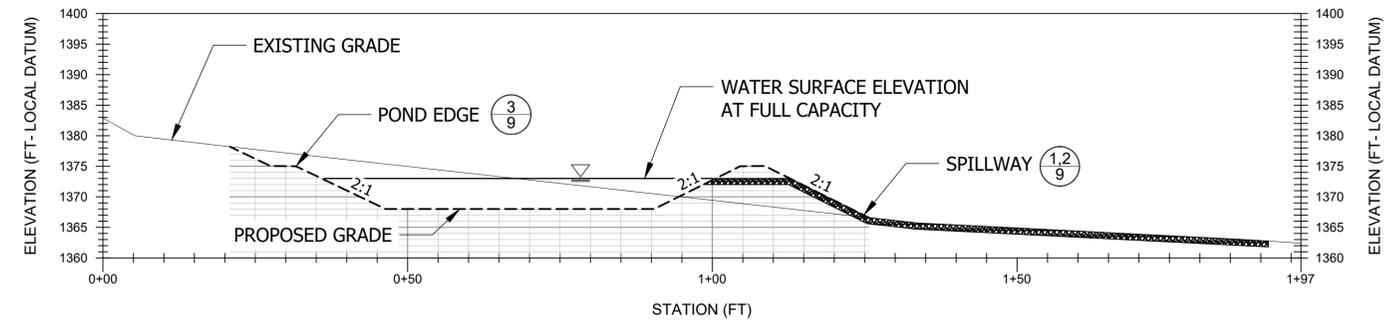
SITE PLAN

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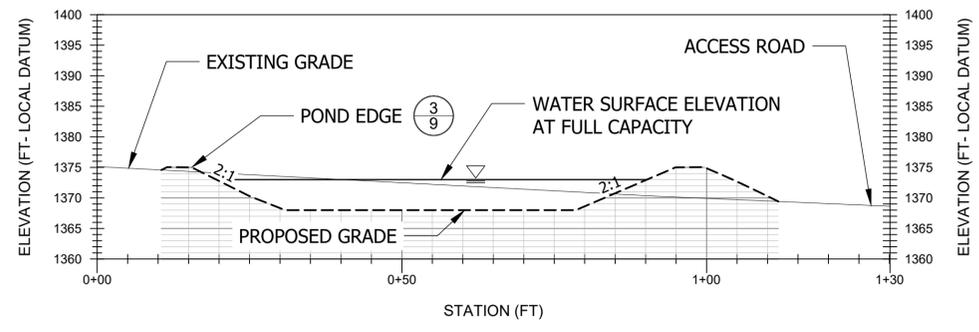




POND 1 A-A'



POND 1 B-B'



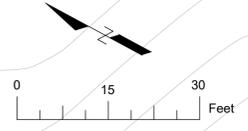
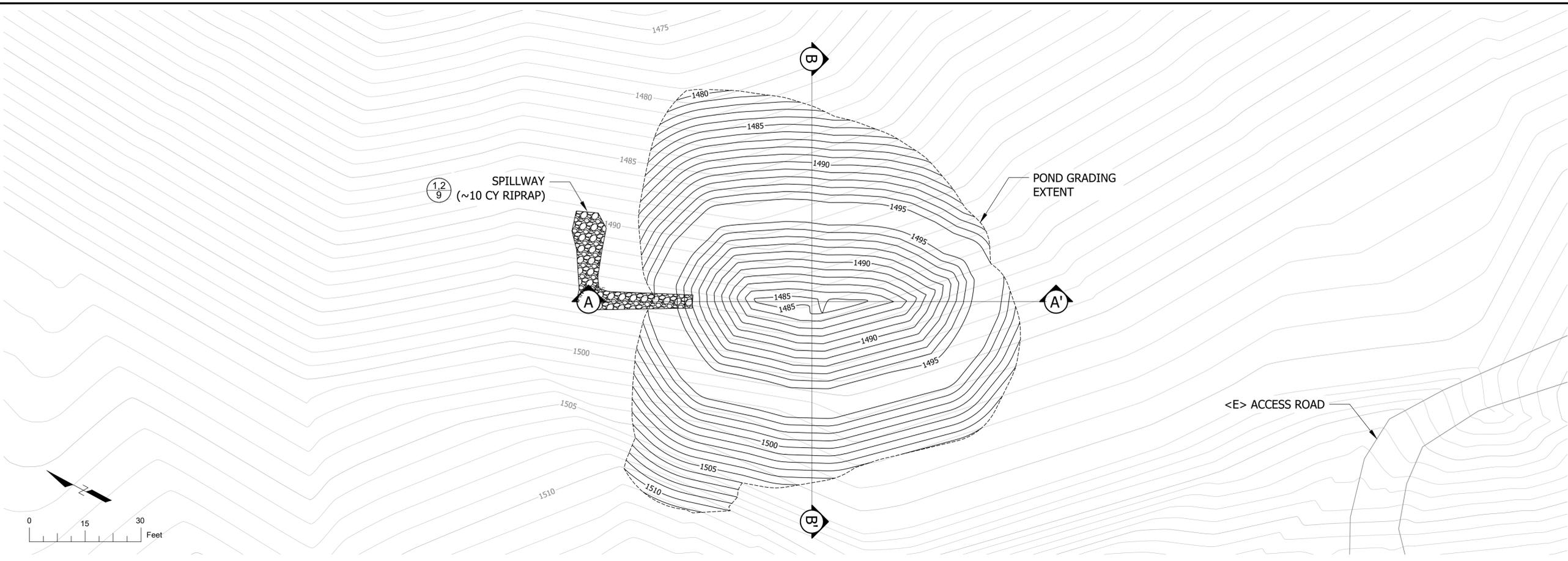
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SCALE: AS NOTED  
DATE: 3/27/2017

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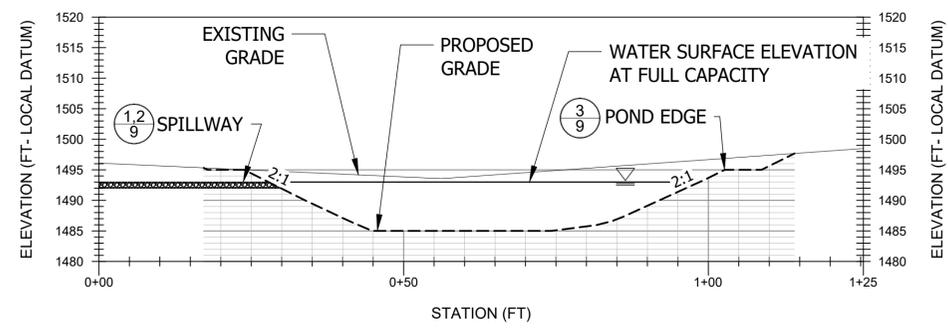


POND RETROACTIVE  
GRADING PLAN

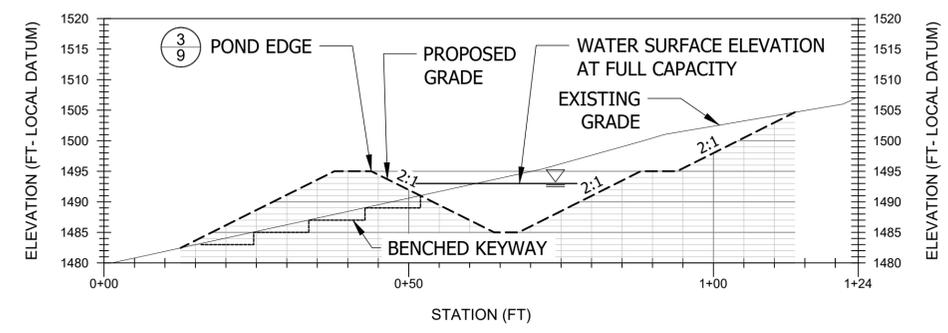
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POND 2 A-A'



POND 2 B-B'



PROJECT NUMBER: 546.26  
SCALE: AS NOTED  
DATE: 3/27/2017

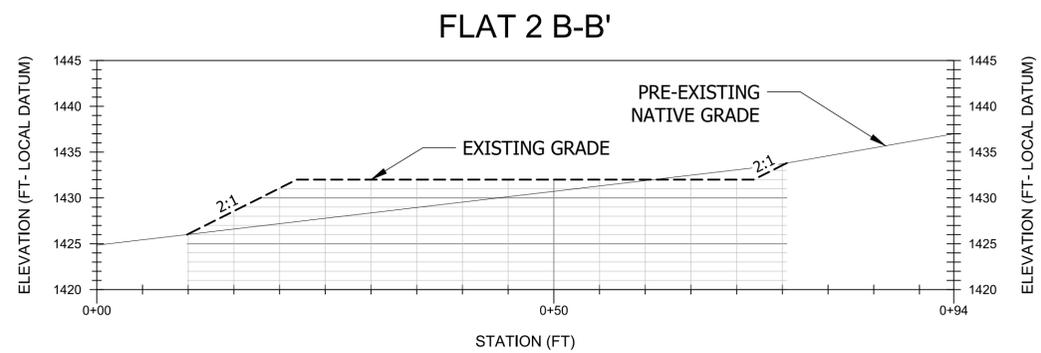
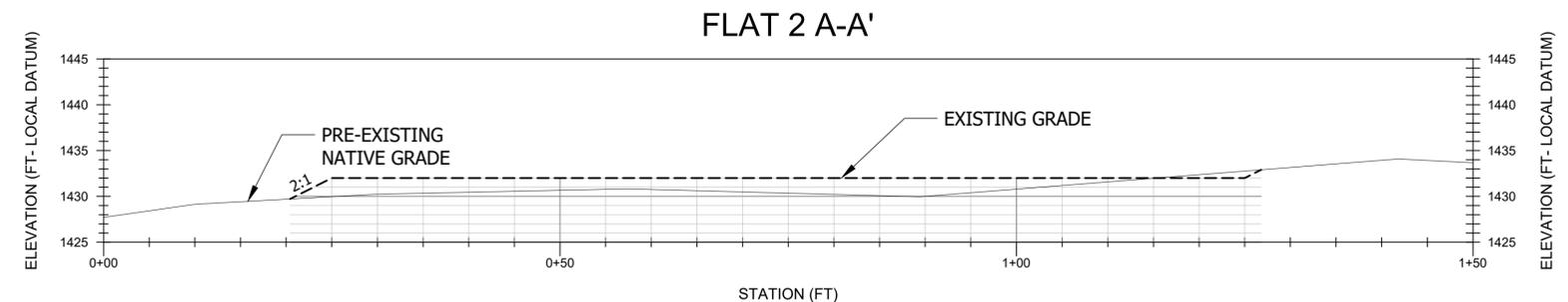
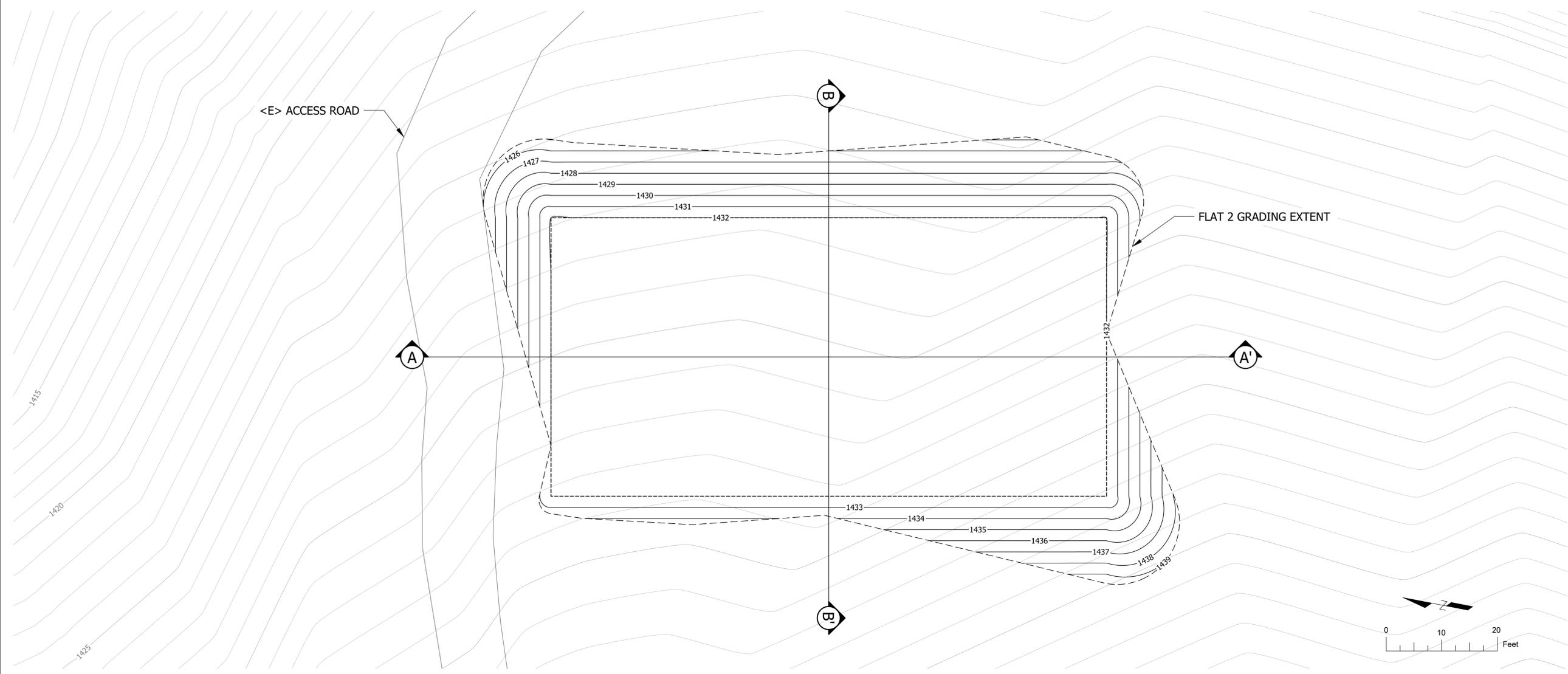
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APPROVED: JM



PROPOSED POND GRADING  
PLAN

LAST SAVED: 3/27/2017 11:07:00 AM PLOT DATE: 3/27/2017 PLOT STYLE: ---





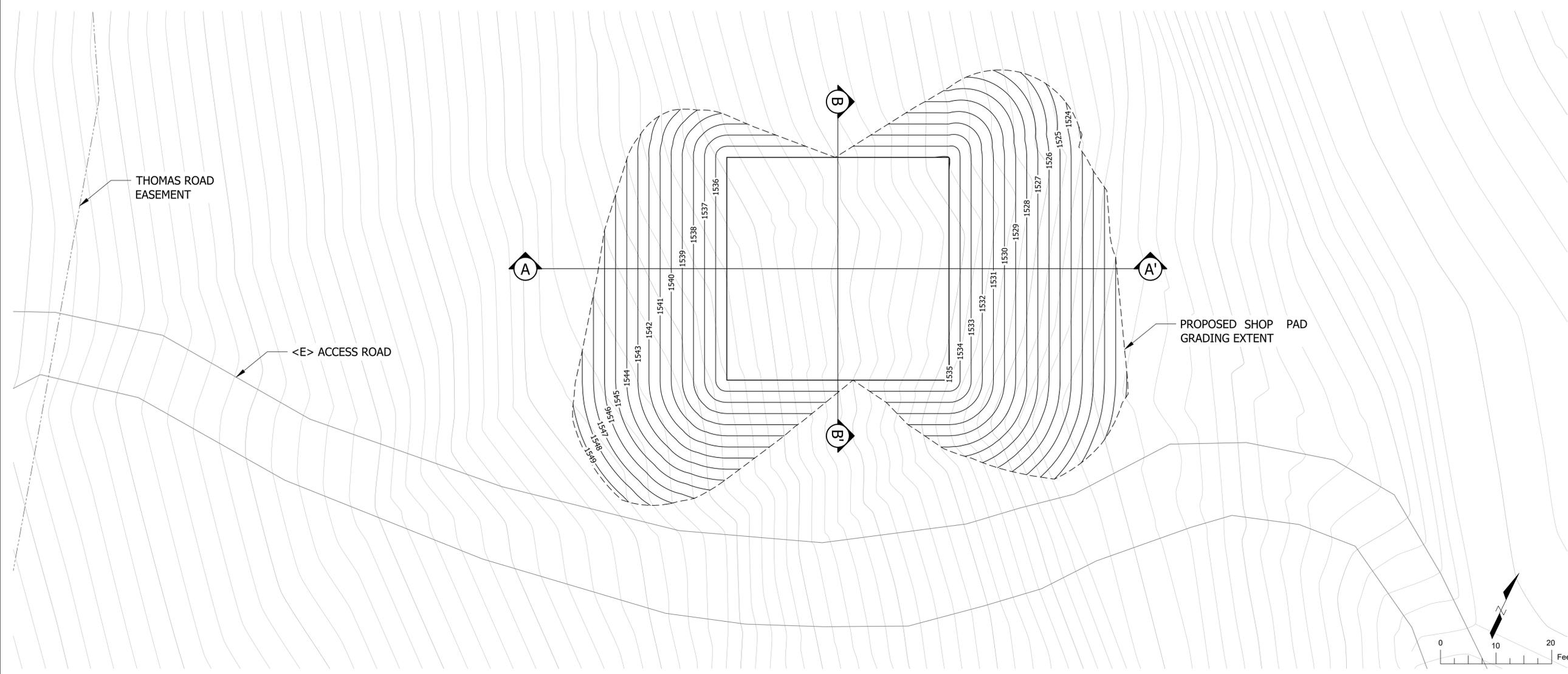
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DATE: 3/27/2017

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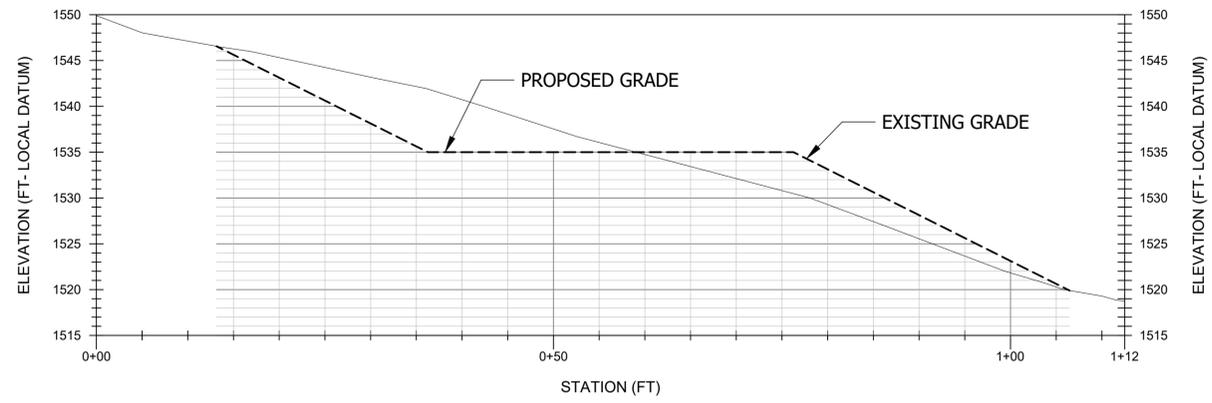


**FLAT 2 RETORACTIVE GRADING PLAN**

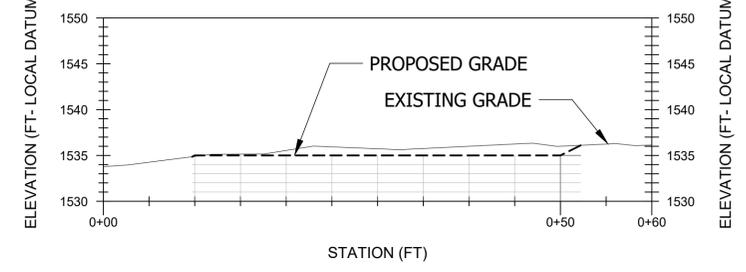
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GARAGE PAD A-A'



GARAGE PAD B-B'



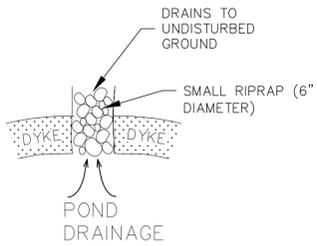
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SCALE: AS NOTED  
DATE: 3/27/2017

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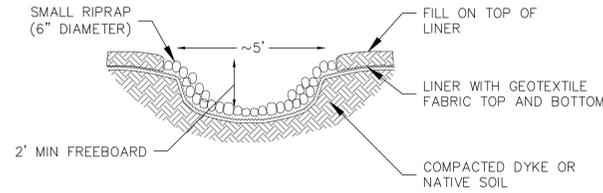


SHOP PAD GRADING  
PLAN

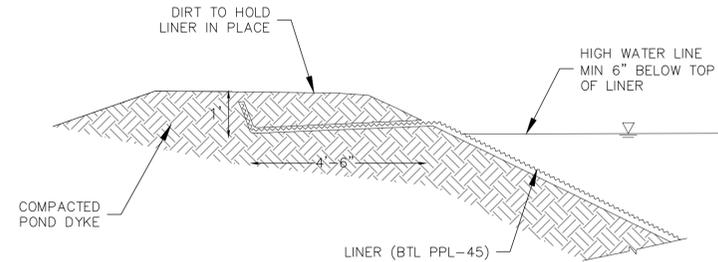
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**1 SPILLWAY PLAN VIEW**  
NTS



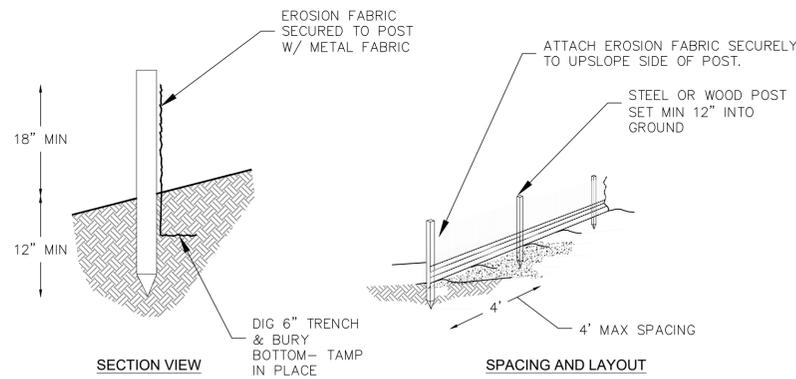
**2 SPILLWAY SECTION VIEW**  
NTS



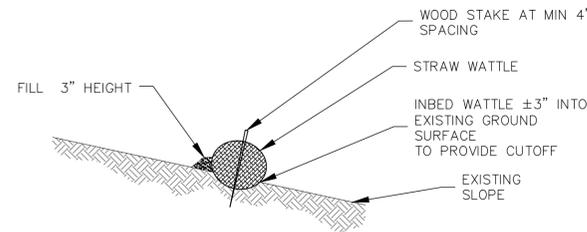
**3 POND EDGE DETAIL**  
NTS

EROSION AND SEDIMENT CONTROL NOTES:

1. EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs) SHALL BE INSTALLED PRIOR TO THE WET SEASON (OCTOBER 1 THROUGH APRIL 30).
2. SENSITIVE AREAS AND AREAS WHERE EXISTING VEGETATION IS BEING PRESERVED SHALL BE PROTECTED WITH CONSTRUCTION FENCING; FENCING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION ACTIVITIES.
3. ALL AREAS DISTURBED DURING GRADING ACTIVITIES SHALL BE SEEDED WITH NATIVE GRASS SEED AND MULCHED WITH RICE STRAW.
4. PRIOR TO SEEDING AND STRAW, DISTURBED AREAS SHOULD BE ROUGHENED BY TRACK WALKING WITH A DOZER.
5. STRAW SHALL BE APPLIED AT A UNIFORM RATE OF APPROXIMATELY 4000 LBS PER ACRE BY HAND.
6. AT THE COMPLETION OF THE PROJECT, ONE ROW OF STRAW WATTLES SHALL BE PLACED AT MID SLOPE ALONG THE POND BERM.
7. PRIOR TO ANY RAINFALL, A SILT FENCE SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER TO PREVENT SEDIMENT FROM DISCHARGING FROM THE PROJECT.
8. ALL SEDIMENT CONTROL BMPs SHALL BE MAINTAINED THROUGHOUT THE WET SEASON UNTIL NEW VEGETATION HAS BECOME ESTABLISHED ON ALL GRADED AREAS.



**4 SILT FENCING**  
NTS



**5 STRAW WATTLE DETAIL**  
NTS



PROJECT NUMBER: 546.26  
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DRAWN: CL  
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APPROVED: JM



DETAILS

LAST SAVED: 3/27/2017 PLOT DATE: 3/27/2017 PLOT STYLE: ---  
 IF BAK DOES NOT MEASURE 1" DRAWING IS NOT TO SCALE - ADJUST ACCORDINGLY  
 C:\DATA\546.26 - MITIGATION\ACAD\546.26 - EROSION CONTROL\546.26 - DETAILS.DWG



Completed September 2020  
Pond Spillway:  
40.23617, -123.95176  
Photo # 1:  
Construction of an armored spillway for an existing pond.







Work Completed: September 2020

Gully 1: 40.23558, -123.9552

Repair of an erosion gully near ditch relief culvert on road, at the top of a class III stream. Headcount areas will be armored with large rock.



Work Completed: September 2020  
Culvert Replacement: 40.23476, -123.9553  
Replace 18" culvert with 24".



Work Completed: September 2020

Gully 2: 40.23661, -123.9529

Remediation of the stream channel. Relocation of water tanks, excavation of small volume of over-steepened fill, and armoring of an of a failed pond berm.







