

HUMBOLDT COUNTY DEPARTMENT OF PUBLIC WORKS
ROAD EVALUATION REPORT

PART A: *Part A may be completed by the applicant*

Applicant Name: Bob Howard APN: 223-044-003-000

Planning & Building Department Case/File No.: 11916

Road Name: REED RANCH ROAD (complete a separate form for each road)

From Road (Cross street): BENTBOW DR.

To Road (Cross street): REED RANCH ROAD

Length of road segment: 2 miles Date Inspected: 7-26-18

Road is maintained by: ☐ County ☒ Other REED MOUNTAIN ROAD ASSOCIATION
(State, Forest Service, National Park, State Park, BLM, Private, Tribal, etc)

Check one of the following:

Box 1 ☐ The entire road segment is developed to Category 4 road standards (20 feet wide) or better. If checked, then the road is adequate for the proposed use without further review by the applicant.

Box 2 ☒ The entire road segment is developed to the equivalent of a road category 4 standard. If checked, then the road is adequate for the proposed use without further review by the applicant.

An equivalent road category 4 standard is defined as a roadway that is generally 20 feet in width, but has pinch points which narrow the road. Pinch points include, but are not limited to, one-lane bridges, trees, large rock outcroppings, culverts, etc. Pinch points must provide visibility where a driver can see oncoming vehicles through the pinch point which allows the oncoming vehicle to stop and wait in a 20 foot wide section of the road for the other vehicle to pass.

Box 3 ☐ The entire road segment is not developed to the equivalent of road category 4 or better. The road may or may not be able to accommodate the proposed use and further evaluation is necessary. Part B is to be completed by a Civil Engineer licensed by the State of California.

The statements in PART A are true and correct and have been made by me after personally inspecting and measuring the road.

Signature

Date

BOB HOWARD
Name Printed

Important: Read the instructions before using this form. If you have questions, please call the Dept. of Public Works Land Use Division at 707.445.7205.



PACIFIC WATERSHED ASSOCIATES INC.

P.O. Box 4433 • Arcata, CA 95518-4433
Phone 707-839-5130 • Fax 707-839-8168
www.pacificwatershed.com

October 31, 2018

Humboldt County Building and Planning Department
3015 H Street
Eureka, California 95501

Re: Information that relates to road improvements on Reed Mountain Road, Bendbow, Humboldt County, California.

This letter serves to provide you with information pertaining to the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG) grant funded road improvement projects implemented on roads under ownership of Bob Howard in 2003 under the Reed Mountain Watershed Restoration Project.

An upland sediment source assessment of Reed Mountain Road was conducted by Pacific Watershed Associates (PWA) in 2001. The assessment outcome included a prioritized action plan to storm proof all sediment source sites and reduce road related sediment delivery to the South Fork Eel River Watershed (Figure 1). The objective of the implementation project was to protect and improve salmonid habitat by reducing road related erosion by storm proofing all potential sediment source locations including the road surface. A total of 147 sites were implemented within the plan, 22 of which are located within the ownership of Bob Howard (See Figure 2 and As-Built Road Logs). The plan was implemented with 2002 grant funds from CDFG (Contract #P0210515) and USFWS (Agreement #113313J151). All treated sites (stream crossings, ditch relief culverts, gullies, and landslides) were designed and constructed according to the standards provided in the "Handbook for Forest and Rural Roads," (Weaver and Hagans, 1994), and the California Salmonid Stream Habitat Manual, Part II (Reynolds and Flosi, 1994). Stream crossings were re-constructed to accommodate 100-year stream flows and associated debris. Methods for determining the 100-year design discharge include either the Rational Method, USGS Magnitude or Frequency Method, or Flow Transference Method. Additionally, photo points were established at all work sites where before and after photos were taken. These photo points provide an opportunity for long-term effectiveness monitoring. CDFG contract manager, Allan Renger and USFWS contract manager, Paula Golightly, conducted a final field inspection of the project area in 2005 and concluded that all project sites are functioning well as designed and implemented and no sediment delivery was observed.

If you have any further questions, or would like additional detail on the scope of the project work, please contact me at 707-839-5130.

Sincerely,
PACIFIC WATERSHED ASSOCIATES INC.

Courtney Sundberg

Courtney Sundberg, Staff Geologist
courtneys@pacificwatershed.com



Figure 2: 2003-2005 Site Map for East Branch South Fork Eel River/ Reed Mountain Watershed Restoration Implementation Project, Humboldt County, California

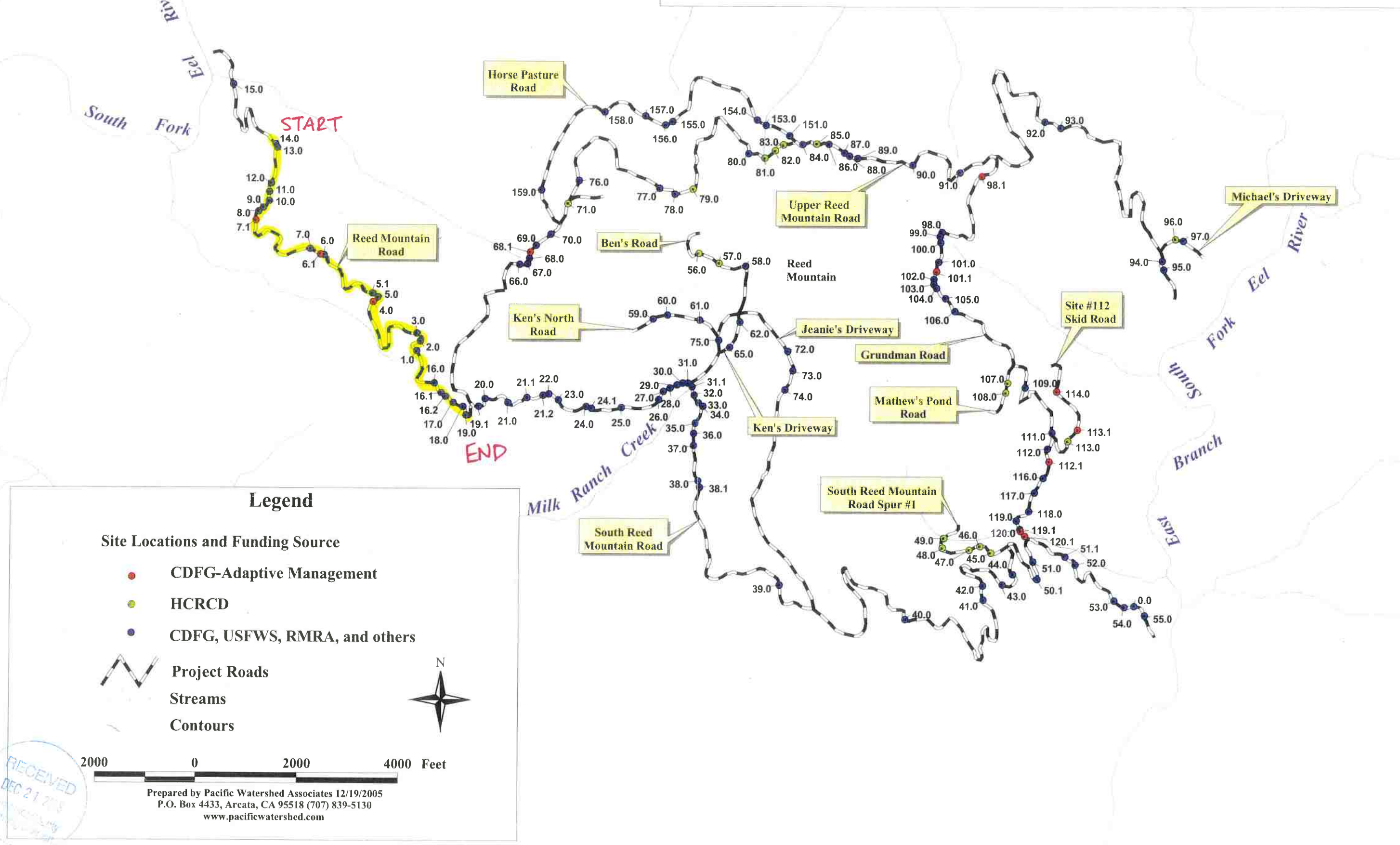


Figure 2: 2003-2005 Site Map for East Branch South Fork Eel River/ Reed Mountain Watershed Restoration Implementation Project, Humboldt County, California

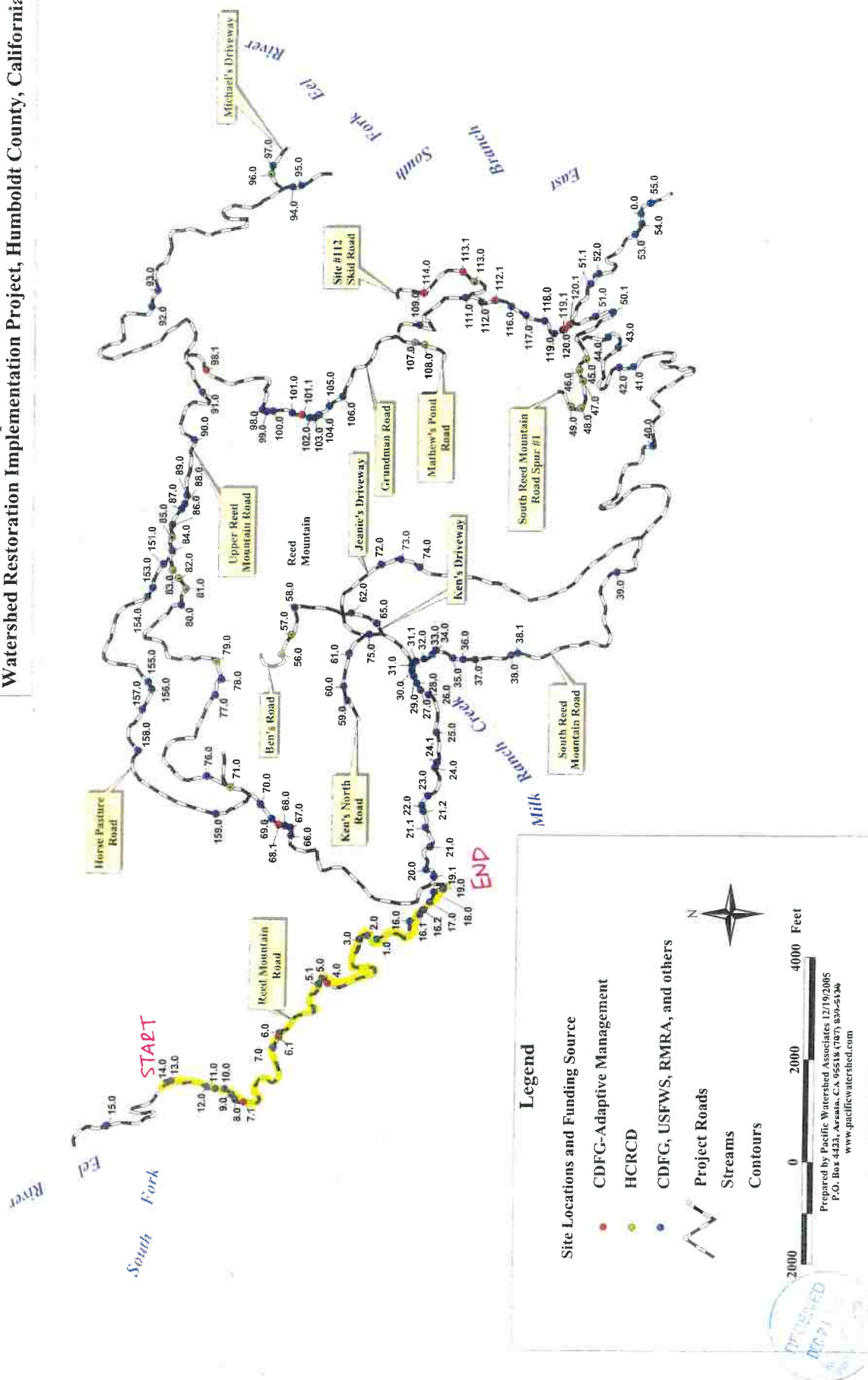
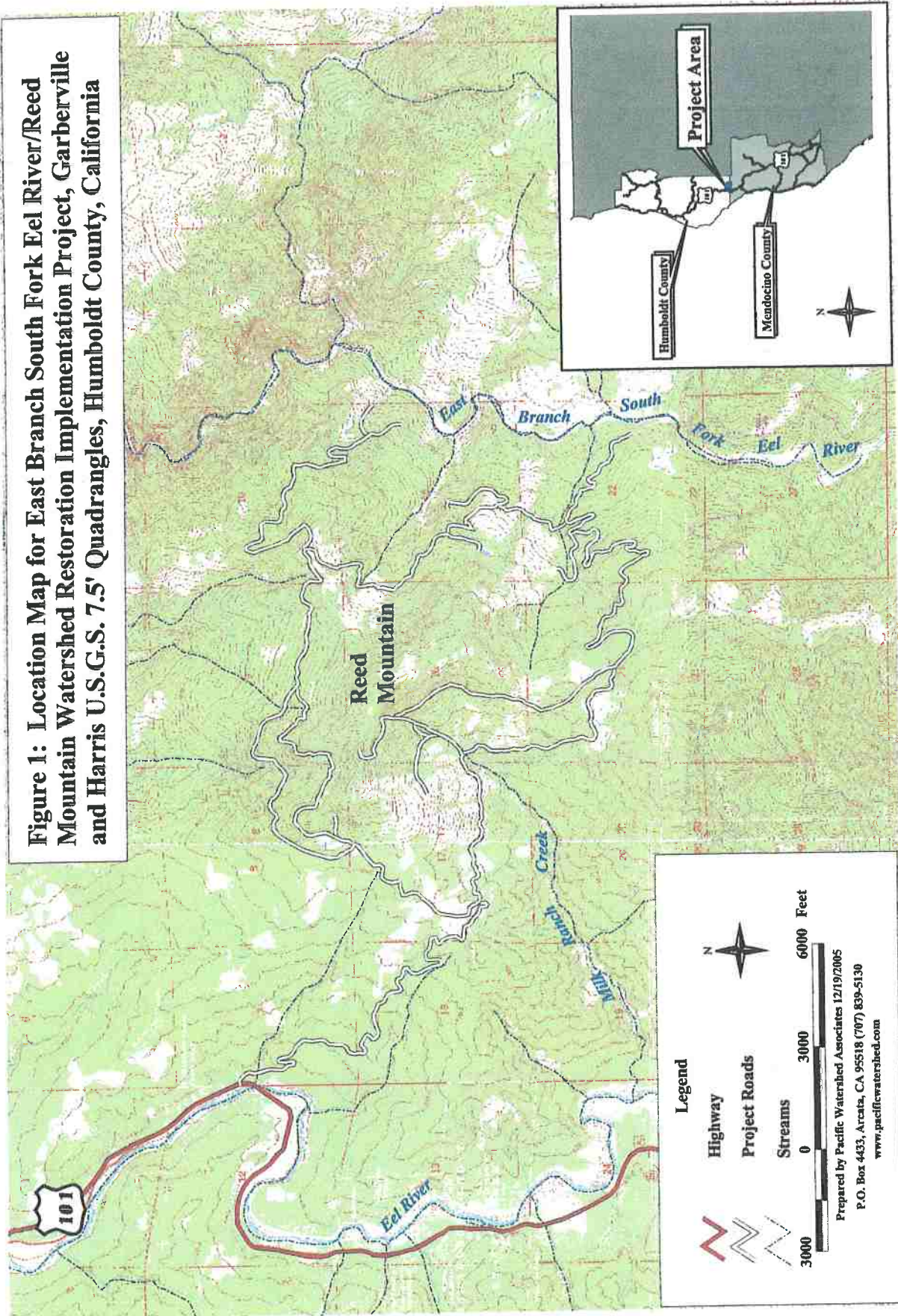


Figure 1: Location Map for East Branch South Fork Eel River/Reed Mountain Watershed Restoration Implementation Project, Garberville and Harris U.S.G.S. 7.5' Quadrangles, Humboldt County, California



Road Log of "As Built" Treatments for Reed Mountain Road, East Branch South Fork Eel River, Humboldt County, California					
Miles	PWA Site#	Road Tmt ¹	Comments/Treatment	CMP Needs	Rock Needs
1) DRC# = Install ditch relief culvert; ISR# = Inslope road with 3% grade; OSR# = Outslope road with 3% grade; OSR-KD# = Outslope road by pulling fill onto road bed to outslope the road and keep the ditch; OSR-FD# = Outslope road by pulling fill onto road bed to outslope the road and fill the ditch. RB-side# = Remove berm and sidecast; RB-Pull# = Remove berm by pulling fill onto the road and outslowing the road or hauling to a stable location; CD# = Install critical dip; RD# = Install rolling dip; DD# Define ditch.					
0.0			Start at intersection with old highway.		
0.092			End of pavement.		
0.124			Gate.		
0.153	15		Center of flat car bridge. No treatment at bridge.		
0.177		Start OSR-FD #1	Start outslope road by pulling fill onto road bed to outslope the road and fill the ditch.		130 yds ³ road rock (from start to end OSR-FD #1)
0.177		RD #1	Install a rolling dip that drains road and ditch to outboard side of road.		
0.219		RD #2	Install a rolling dip to drain road and ditch into swale at outboard edge.		
0.261		RD #3	Install a rolling dip to drain road and ditch.		
0.298		RD #4	Install a rolling dip to drain road and ditch.		
0.331		RD #5	Install a rolling dip to drain road and ditch.		
0.382		RD #6	Install a rolling dip to drain road and ditch. Make sure dip captures any flow from small gully on hillslope.		
0.426		RD #7	Install a rolling dip to drain road and ditch.		
0.453		End OSR-FD# 1	End outslope road by pulling fill onto road bed to outslope the road and fill the ditch.		
0.539		RD #9	Install a rolling dip to drain road and ditch.		15 yds ³ road rock
0.579		RD #10	Install a rolling dip to drain road only.		15 yds ³ road rock
0.625		RD #11	Install a rolling dip to drain road and ditch.		15 yds ³ road rock
0.654	14		Spring and small gully on hillslope. Install 18" x 40' plastic ditch relief culvert. Clean ditch for 50' above culvert.	18" x 40' PVC	15 yds ³ road rock
0.663	13	CD #1	Culverted 18" stream crossing with a big gully below the outlet. Excavate from TOP (just above ditch) to BOT. Install 30" x 80' CMP at base of fill. Install a critical dip at the right hinge line. Can use any spoils to help fill old gully. Place 15 yds ³ of 0.5-1.5' mixed diameter rip-rap below the critical dip. Clean ditch to DRC. Install berm at OBR.	30" x 60' CMP, 2 bands	15 yds ³ of 0.5-1.5' diameter mixed rip-rap & 20 yds ³ of road rock

Road Log of "As Built" Treatments for Reed Mountain Road, East Branch South Fork Eel River, Humboldt County, California					
Miles	PWA Site#	Road Tmt ¹	Comments/Treatment	CMP Needs	Rock Needs
1) DRC# = Install ditch relief culvert; ISR# = Inslope road with 3% grade; OSR# = Outslope road with 3% grade; OSR-KD# = Outslope road by pulling fill onto road bed to outslope the road and keep the ditch; OSR-FD# = Outslope road by pulling fill onto road bed to outslope the road and fill the ditch. RB-side# = Remove berm and sidecast; RB-Pull# = Remove berm by pulling fill onto the road and outsloping the road or hauling to a stable location; CD# = Install critical dip; RD# = Install rolling dip; DD# Define ditch.					
0.879		End OSR-KD #1 & Start OSR-FD #2	End outslope road by removing berm and pulling onto the road and keep the ditch and start outslope road by removing berm and pulling onto the road and fill the ditch.		240 yds ³ road rock (from start to end OSR-FD #2)
0.922		RD #14	Install a rolling dip that drains road only. Really super outslope.		
0.943		RD #15	Install a rolling dip to drain road only.		
1.001		RD #16	Install a rolling dip to drain road only.		
1.046		RD #17	Install a rolling dip that drains road only, toward inside bend of road. Really super outslope road.		
1.129		RD #19	Install a rolling dip to drain road only.		
1.191		RD #20	Install a rolling dip to drain road only.		
1.234		RD #21	Install a rolling dip to drain road only.		
1.272		RD #22	Install a rolling dip to drain road only.		
1.306		RD #23	Install a rolling dip to drain road only.		
1.378		RD #24	Install a rolling dip to drain road only.		
1.390		End OSR-FD #2	End outslope road by removing berm and pulling onto the road and fill the ditch.		
1.395			Rock pit on left.		
1.402	7	RD #26	Install a rolling dip to drain road and ditch. Armor outboard fill face with 15 yds ³ of rip-rap.		15 yds ³ of 0.5-1.5' diameter mixed rip-rap & 15 yds ³ road rock
1.422	6.1		Excavate unstable slope above channel downstream of BOT flag, on right bank 35' x 3' x 10' = 39 yds ³ . Use spoils to help fill ditches.		
1.429	6	CD #6	Culverted 24" stream crossing. Excavate from TOP to BOT. Install 36" x 60" CMP at the base of the fill. Install a single post trash rack 36" above the new inlet. Install a critical dip on right hinge line. Place 20 yds ³ of 0.5-1.5' mixed diameter rip-rap on fillslope below the critical dip.	36" x 60" CMP, 2 bands	20 yds ³ of 0.5-1.5' diameter mixed rip-rap & 20 yds ³ road rock
1.458			Intersection with driveway on right.		

Road Log of "As Built" Treatments for Reed Mountain Road, East Branch South Fork Eel River, Humboldt County, California					
Miles	PWA Site#	Road Tmt ¹	Comments/Treatment	CMP Needs	Rock Needs
1) DRC# = Install ditch relief culvert; ISR# = Inslope road with 3% grade; OSR# = Outslope road with 3% grade; OSR-KD# = Outslope road by pulling fill onto road bed to outslope the road and keep the ditch; OSR-FD# = Outslope road by pulling fill onto road bed to outslope the road and fill the ditch. RB-side# = Remove berm and sidecast; RB-Pull# = Remove berm by pulling fill onto the road and outsloping the road or hauling to a stable location; CD# = Install critical dip; RD# = Install rolling dip; DD# Define ditch.					
1.825		RD #34	Install a rolling dip to drain road only.		
1.826		End OSR-FD #4 & Start OSR-KD #2	End outslope road by pulling fill onto road bed to outslope the road and fill the ditch and start outslope road by pulling fill onto road bed to outslope the road and keep the ditch.		63 yds ³ road rock (from start to end OSR-KD #2)
1.826			Intersection with downhill driveway on right.		
1.826		DRC #1	Install an 18" x 80' plastic ditch relief culvert to outlet just below driveway on the right.	18" x 80' PVC, 3 bands	
1.855		RD #35	Install a rolling dip to drain road only.		
1.888		DRC #2	Spring/seeping cutbank. Install an 18" x 40' plastic ditch relief culvert.	18" x 40' PVC	
1.888		RD #36	Install a rolling dip that drains road only.		
1.960		RD #37	Install a rolling dip that drains road and ditch.		
1.960		End OSR-KD #2 & Start OSR-FD #5	End outslope road by pulling fill onto road bed to outslope the road and keep the ditch and start outslope road by pulling fill onto road bed to outslope the road and fill the ditch.		104 yds ³ road rock (from start to end OSR-FD #5)
1.960		RD #38	Install a rolling dip that drains road and ditch. Really super outslope on bend.		
1.983		RD #39	Install a rolling dip that drains road and ditch.		
2.024		RD #40	Install a rolling dip that drains road and ditch.		
2.059		RD #41	Install a rolling dip that drains road and ditch.		
2.094		RD #42	Install a rolling dip that drains road and ditch.		
2.121		RD #43	Install a rolling dip that drains road and ditch.		
2.158	3	CD #8	Culverted stream crossing with 8" and 12" culverts. Excavate from top to bottom. Install 24" x 50' plastic culvert at base of fill. Excavate 4' wide channel bottom and lay back side slopes to 2:1 from top to new inlet. Install a critical dip to left hinge line. Install a single post trash rack 24" above new inlet.	24" x 50' PVC	
2.182		End OSR-FD #5	End outslope road by pulling fill onto road bed to outslope the road and fill the ditch.		
2.211	2	CD #9	Culverted 8" stream crossing. Excavate firm top to bottom. Install 24" x 50' plastic culvert at the base of	24" x 50'	15 yds ³ of 0.25-1.0'

Road Log of "As Built" Treatments for Reed Mountain Road, East Branch South Fork Eel River, Humboldt County, California					
Miles	PWA Site#	Road Tmt ¹	Comments/Treatment	CMP Needs	Rock Needs
1) DRC# = Install ditch relief culvert; ISR# = Inslope road with 3% grade; OSR# = Outslope road with 3% grade; OSR-KD# = Outslope road by pulling fill onto road bed to outslope the road and keep the ditch; OSR-FD# = Outslope road by pulling fill onto road bed to outslope the road and fill the ditch. RB-side# = Remove berm and sidecast; RB-Pull# = Remove berm by pulling fill onto the road and outsloping the road or hauling to a stable location; CD# = Install critical dip; RD# = Install rolling dip; DD# Define ditch.					
2.575		Start OSR-KD #3	Start outslope road by pulling fill onto road bed to outslope the road and keep the ditch.		16 yds ³ road rock (from start to end OSR-KD #3)
2.599	18		12" ditch relief culvert. Replace with an 18" x 60' plastic ditch relief culvert.	18" x 60' PVC	
2.610		End OSR-KD #3 & Start OSR-FD #7	End outslope road by pulling fill onto road bed to outslope the road and keep the ditch an start outslope road by pulling fill onto road bed to outslope the road and fill the ditch.		24 yds ³ road rock (from start to end OSR-FD #7)
2.615		RD #52	Install a rolling dip to drain road and ditch.		
2.642		RD #53	Install a rolling dip to drain road and ditch.		
2.661	19		18" ditch relief culvert with large gully at the outlet. Replace with 18" x 30' plastic ditch relief culvert, moving inlet in about 3'.	18" x 40' PVC	
2.661			Intersection with South Reed Mountain Road on right.		

Road Log of "As Built" Treatments for Upper Reed Mountain Road, East Branch South Fork Eel River, Humboldt County, California					
Miles	PWA Site#	Road Tmt ¹	Comments/Treatment	CMP Needs	Rock Needs
1) DRC# = Install ditch relief culvert; ISR# = Inslope road with 3% grade; OSR# = Outslope road with 3% grade; OSR-KD# = Outslope road by pulling fill onto road bed to outslope the road and keep the ditch; OSR-FD# = Outslope road by pulling fill onto road bed to outslope the road and fill the ditch. RB-side# = Remove berm and sidecast; RB-Pull# = Remove berm by pulling fill onto the road and outsloping the road or hauling to a stable location; CD# = Install critical dip; RD# = Install rolling dip; DD# Define ditch.					
2.661		End OSR-FD #7 & Start OSR-KD #4	End outslope road by pulling fill onto road bed to outslope the road and fill the ditch an start outslope road by pulling fill onto road bed to outslope the road and keep the ditch.		214 yds ³ road rock (from start to end OSR-KD #4)
2.689		RD #54	Install a rolling dip to drain road only.		
2.726		RD #55	Install a rolling dip to drain road and ditch.		
2.762		RD #56	Install a rolling dip to drain road and ditch.		
2.799		RD #57	Install a rolling dip to drain road only.		

Water Irrigation and Storage Plan

Bob Howard

Location: 000 Reed Mountain Rd Garberville, CA 95542

County: Humboldt

APN: 223044010

Address: PO Box 909 Garberville, CA 95542

Contact Name: Vanessa Valore

Telephone: 760.613.6520/ 707.986.7815

Email: etahumboldt@gmail.com

Water Plan

Water Storage and Usage

Overall the amount of water used by the Cannabis Gardens is 228,270 gallons per year, this is an estimate, to the best of my knowledge. The domestic use water is an estimate, to the best of my knowledge, to which I based my estimate on around 80 gallons a day per person for the caretaker's residence. Maximum of water stored on-site at anytime is 2,500 gallons for domestic and 13,000 gallons for cultivation. Water is moved from the pond to POU#1 using a solar powered pump. From POU#1 water is pumped to POU#2. Once water reaches its point of use, water is moved by gravity to the cannabis cultivation areas. If something goes wrong with solar pumps water is carried by truck with water tank to the cannabis cultivation areas. The caretaker's residence has a domestic spring S027931.

Water Discharge

Water storage is separate from all cannabis feeding tanks. Feeding tanks are at least 200 ft from nearest water source and is flat. Hay is spread on top soil to help with evaporation and runoff. Heavy amounts of peat moss and coco coir are also amended into soil periodically to help with runoff of fertilizer. No run-off from cultivation watering flows into the ground.

Cannabis cultivation occurs at least 200 feet away from the Class II watercourse. All poly-flex irrigation water lines are anchored, located up and out of drainages, and sited in a responsible way so as not to impede water flow through stream channels.

Projected Water Usage for Cannabis Garden.

Overall the amount of water used by the Cannabis Gardens is maximum 228,270 gallons per year.

Total estimated water usage for household/ domestic usage 70,000 gallons per year.

Total estimated water usage for property approx 298,270 gallons per year gallons per year. This is an estimate, to the best of my knowledge, The domestic use water is an estimate, to the best of my knowledge. Maximum of water stored on-site in above ground tanks for cannabis is 13,000. This water comes from the Pond which has 4 and ½ acres of water storage from rain catchment only. Tanks used as intermediary between pond and cultivation. Water stored for less than 30 days. The tanks then feed the gardens by gravity. I have added the map and information I have submitted to State Water Resources Control Board and Enrollment Notice of Intent Form for Waiver of Waste Discharge Requirements Order Number R1-2015-0023

.Daily Rate at 1 gallon a day per 10 sq ft of cultivation in greenhouses. Daily rate at 1.5 gallons a day for open air cannabis.

Spring on property is for domestic use only and services the caretaker's residence.

Monthly Water Use Table

Month	Total water Use in Gallons	POU#1 1500 sqft	POU#2 -GH 3850 sqft	POU#2 GH 1500 sqft	POU#2 Open Air 2525 sqft	Domestic Use
Jan	0 (Zero)	0 (Zero)	0 (Zero)	0 (Zero)	0 (Zero)	6,000
Feb	0 (Zero)	0 (Zero)	0 (Zero)	0 (Zero)	0 (Zero)	6,000
Mar	2,250 veg	0 (Zero)	0 (Zero)	2,250 veg	0 (Zero)	6,000
Apr	15,975	2,250	5,775	2,250	5,700	6,000
May	33,015	4,650	11,935	4,650	11,780	6,000
June	31,950	4,500	11,550	4,500	11,400	5,000
July	33,015	4,650	11,935	4,650	11,780	5,000
Aug	33,015	4,650	11,935	4,650	11,780	5,000
Sept	31,950	4,500	11,550	4,500	11,400	5,000
Oct	33,015	4,650	11,935	4,650	11,780	6,000
Nov	15,975	2,250	5,775	2,250	5,700	8,000
Dec	0 (Zero)	0 (Zero)	0 (Zero)	0 (Zero)	0 (Zero)	6,000

Total	228,270 + 70,000 dom	32,100	82,390	32,460	81320	70,000	
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Total estimated water usage for cannabis cultivation 199,270 gallons per year

I have read and keep a copy in my binder of the "Best Management Practices of Waste Resulting from Cannabis Cultivation and Associated Activities or operations with Similar Environmental Risk", "Performance Standards for all CMMLUO Cultivation and Processing Operations" and the "Legal Pest Management practices for Marijuana Growers in California". I intend to practice the guidelines set forth by these documents to help ensure my compliance with laws. I also intend to be flexible with county and state officials, make changes as necessary and upgrade my property to comply. Please feel free to contact me for any more information.

Human Waste Water Disposal

Bob Howard



Location: 000 Reed Mountain Rd Garberville, CA 95542

County: Humboldt

APN: 223044010

Address: PO Box 909 Garberville, CA 95542

Contact Name: Vanessa Valare

Telephone: 760.613.6520/ 707.986.7815

Email: etahumboldt@gmail.com

Domestic Waste Water

Wastewater is handled with an Onsite wastewater system in the form of a septic tank and leach field. Septic has been perk tested, designed and engineered by PWA. Report can be added if needed.. Septic tank for grey and black water. Septic Tank is 10 ft from residence and is installed according to design schematic and parameters Leach field behind septic.

This septic tank collects waste from kitchen sink, shower and bathroom sinks, toilet in caretakers residence and in processing shop that has one bathroom and one sink. This shop bathroom is for use by the seasonal workers or independent contractors. Waste tanks are serviced as necessary and checked once a year.

Porta potty, if needed

AS-BUILT
GRADING, DRAINAGE & EROSION CONTROL PLAN

CAUTION:
UNAUTHORIZED CHANGES & USES

THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONALS.

BOB HOWARD
Garberville, California

THIS AS-BUILT GRADING PLAN IS FOR THE
EXISTING POND ONLY. THE POND IS FILLED WITH
RAIN CATCHMENT ONLY AND NO OVERLAND
DRAINAGE WILL BE USED TO FILL POND

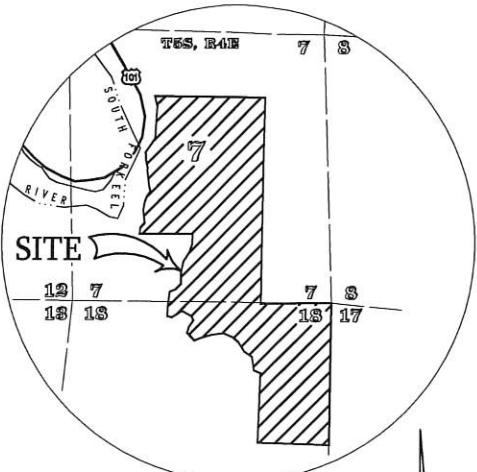
CONSTRUCTION NOTES

GENERAL

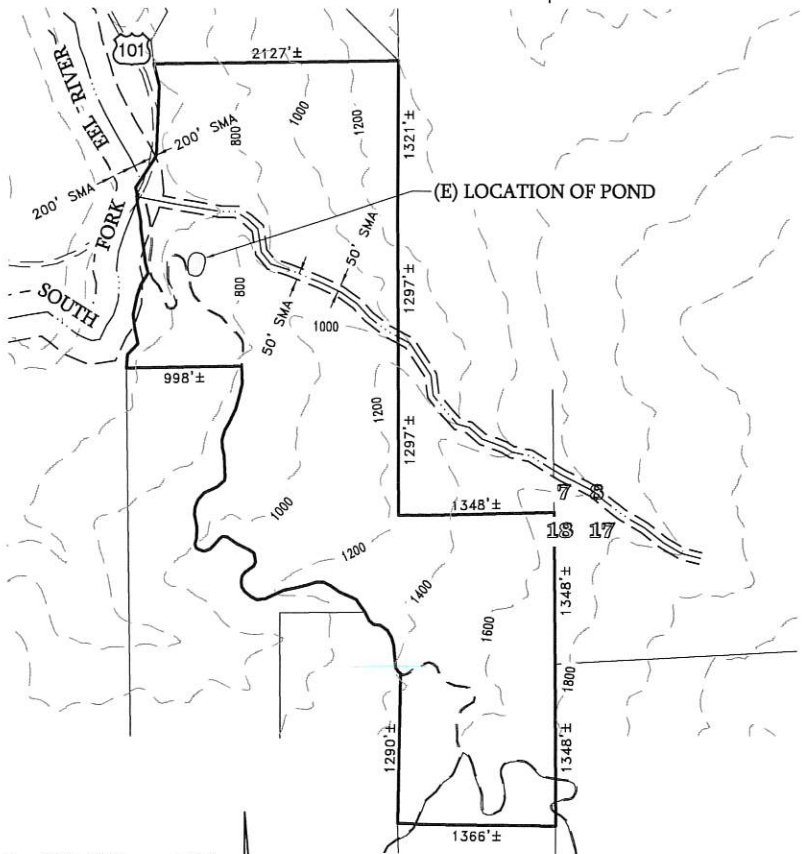
- THE INFORMATION AND ELEVATIONS PERTAINING TO EXISTING UNDERGROUND FACILITIES, AS SHOWN HEREON, ARE FROM RECORD INFORMATION AND IS PRESENTED HERE FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL AGENCIES INVOLVED AND SHALL LOCATE THE EXISTING UNDERGROUND FACILITIES PRIOR TO EXCAVATION AND CONSTRUCTION IN ANY AREA. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AT 811 AT LEAST TWO (2) WORKING DAYS IN ADVANCE OF ANY EXCAVATION, AND SHALL NOTIFY THE ENGINEER AND DEVELOPER OF ANY APPARENT DISCREPANCIES IN THE RECORD INFORMATION SHOWN HEREIN.
- CONTOURS ARE BASED ON USGS 1/3 ARC-SECOND DIGITAL ELEVATION MODELS AND ARE AT 40 FOOT INTERVALS.
- MATERIALS AND WORK SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND STANDARD PLANS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS), LATEST EDITION, AND THE IMPROVEMENT STANDARDS, LATEST REVISION, OF THE COUNTY OF HUMBOLDT.
- THE CONTRACTOR SHALL REMOVE FROM THE SITE AND LAWFULLY DISPOSE OF ALL DELETERIOUS MATERIAL (BROKEN CONCRETE, ASPHALT PAVEMENT, BASE MATERIAL, ROCKS, STUMPS, ROOTS, LIMBS, ETC.) TO A COUNTY APPROVED DISPOSAL SITE.
- THE CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS ON OR ADJACENT TO THE PROJECT SITE, INCLUDING BUT NOT LIMITED TO FENCES, CONCRETE CURBS AND GUTTERS, CONCRETE SLABS, UNDERGROUND CONDUITS, STRUCTURES, DECKS, LANDSCAPING, ETC. WHERE DAMAGE TO ADJACENT IMPROVEMENT IS UNAVOIDABLE, THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE PROPERTY OWNER TO REPLACE OR REPAIR THE DAMAGED IMPROVEMENTS.
- STORM DRAIN PIPE, SHALL BE HIGH-DENSITY POLYETHYLENE (N-12 AS MANUFACTURED BY ADS, OR APPROVED EQUAL), OR AS SPECIFIED ON THESE PLANS.
- THIS PARCEL IS ZONED AE-B-6 AND HAS A GENERAL PLAN DESIGNATION OF RA40 AND IS IN THE STATE RESPONSIBILITY AREA (SRA).
- THE PROPERTY IS CURRENTLY DEVELOPED, WITH TWO (2) RESIDENCES, INDOOR SHOP AND FOUR (4) GREENHOUSES.
- THE SITE HAS HISTORICALLY NOT BEEN SUBJECT TO FLOODING, PER F.I.R.M. COMMUNITY-PANEL.
- IT IS UNKNOWN AT THIS TIME WHETHER THE SITE IS UNDERLAIN BY SENSITIVE HABITAT AREAS, WETLAND AREAS OR ARCHAEOLOGICAL RESOURCES.

GRADING & EROSION CONTROL NOTES

- APPROXIMATELY 780 C.Y. OF SOIL MATERIAL WAS RELOCATED TO ACCOMPLISH THE GRADING AS SHOWN HEREON.
- DUST SHALL BE CONTROLLED BY WATERING DURING ALL PHASES OF CONSTRUCTION.
- SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE DURING CONSTRUCTION.
- ALL GROUND BARED BY EARTH-MOVING ACTIVITIES SHALL RECEIVE EROSION CONTROL TREATMENT PRIOR TO THE ONSET OF THE WINTER RAINS. EROSION CONTROL TREATMENT SHALL CONSIST OF THE FOLLOWING:
 - SPREAD REDWAY SEED MIX AT THE MANUFACTURERS RECOMMENDED RATE.
 - SPREAD STRAW AT THE RATE OF 2 TONS/ACRE.
 - STRAW SHALL BE STABLE AND NOT SUBJECT TO REMOVAL BY WIND. THE STRAW SHALL BE PLACED WITH PARTIAL EMBEDMENT INTO THE SOIL OR TREATED WITH A SUITABLE STABILIZING EMULSION.
- THE GOAL OF THIS GRADING, DRAINAGE & EROSION CONTROL PLAN IS TO MINIMIZE SEDIMENT LEAVING THE SITE, AND TO ENSURE THAT ANY SEDIMENT THAT DOES LEAVE WILL HAVE AN INSIGNIFICANT IMPACT DOWNSTREAM.
- SITE MONITORING PRIOR TO AND AFTER SIGNIFICANT STORM EVENTS SHALL BE MADE BY THE DEVELOPER, TO VERIFY THAT THE EROSION CONTROL MEASURES ARE SATISFACTORY, AND TO DETERMINE IF ADDITIONAL MEASURES ARE REQUIRED IN ORDER TO ACHIEVE THIS PLAN'S GOAL.
- ALL EARTHWORK AND GRADING SHALL BE COMPLETED IN ACCORDANCE WITH SECTION 19 OF CALTRANS SPECIFICATIONS, LATEST EDITION, AND SECTION 331-12 OF THE HUMBOLDT COUNTY LAND USE ORDINANCE
- CUT SLOPES SHALL BE 2:1 MAXIMUM AND FILL SLOPES SHALL BE 2:1 MAXIMUM UNLESS OTHERWISE SHOWN ON THE PLANS.



VICINITY MAP
SCALE: 1" = 4,000'



LOCATION MAP
SCALE: 1" = 1,600'

DRAWING INDEX

SHEET	DRAWING
1	COVER / TITLE SHEET
2	POND - PLAN VIEW & SILT FENCE DETAIL
3	POND SECTION

OWNER/APPLICANT

BOB HOWARD
P. O. BOX 909
GARBERVILLE, CA 95542
(707) 273-2240

LEGEND

SYMBOL	INDICATES
---	DIRECTION OF SURFACE WATER RUNOFF/FLOW DIRECTION
(P)	PROPOSED
(E)	EXISTING
(TYP.)	TYPICAL
S.F.	SQUARE FEET
GAL.	GALLON
DIA.	DIAMETER
AGG.	AGGREGATE
HDPE	HIGH-DENSITY POLYETHYLENE
PVC	POLYVINYL CHLORIDE
SRA	STATE RESPONSIBILITY AREA
[Hatched Box]	EXISTING CUT
[Dotted Box]	EXISTING FILL
C.Y.	CUBIC YARDS
RSP	ROCK SLOPE PROTECTION
SMA	STREAMSIDE MANAGEMENT AREA
BMP	BEST MANAGEMENT PRACTICES
SWRCB	STATE WATER RESOURCES CONTROL BOARD
NRM	NATURAL RESOURCE MANAGEMENT, INC.
1200	CONTOURS AT 200 FOOT INTERVALS ON SHEET 1
680	CONTOURS AT 40 FEET INTERVALS ON SHEET 2
[Line with Cross-Ticks]	SILT FENCE



Stephen G. Nesvold
STEPHEN G. NESVOLD, P.E.
R.C.E. 25681

11/13/18
DATE

APN 223-044-010

GRADING, DRAINAGE
& EROSION CONTROL PLAN

for
BOB HOWARD
In the unincorporated area of Humboldt County
Section 7 & 18, T.5S., R.4E., H.B.&M.

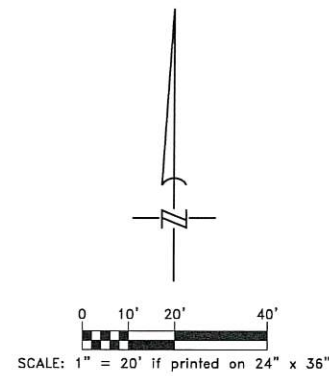
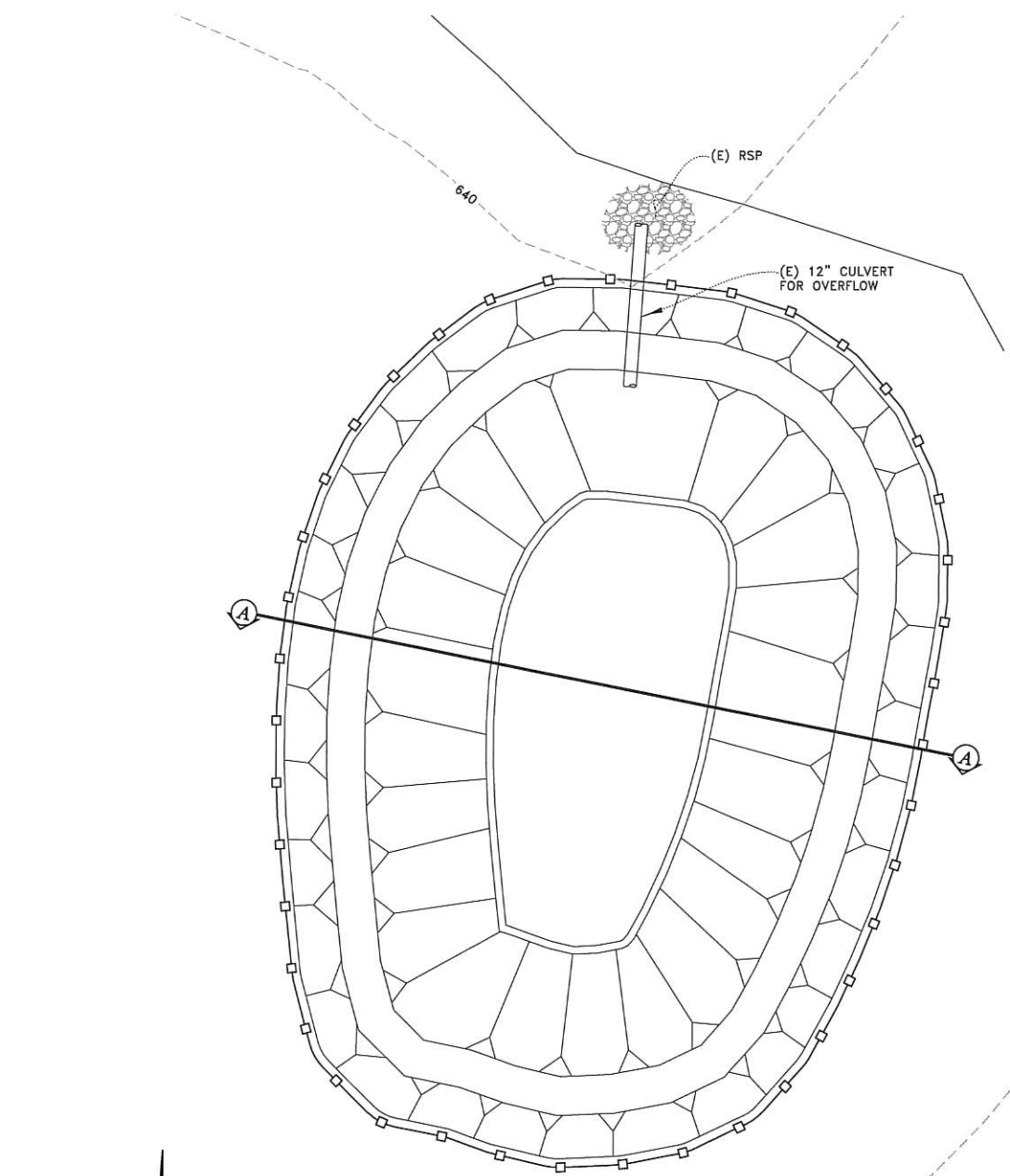
NO.	REVISION	DATE	BY

OMSBURG & PRESTON
434 7th Street
Eureka, California
95501
Telephone
(707) 443-8851

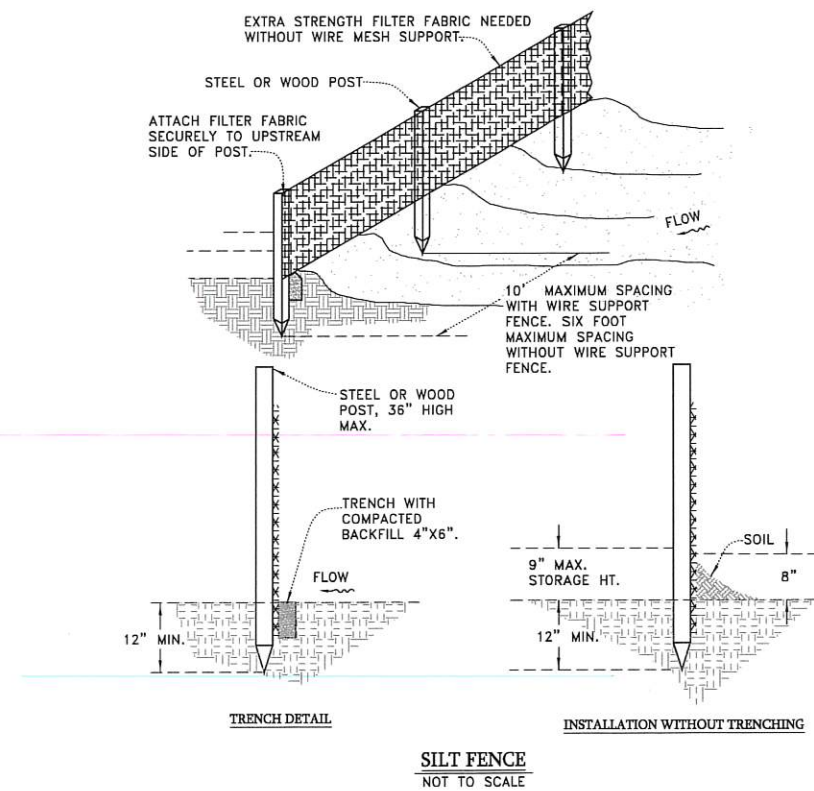
PLANNERS
ENGINEERS

DESIGNED BY	SGN	DATE	08/03/18
DRAWN BY	CWB	DATE	08/03/18
CHECKED BY	SGN	DATE	11/13/18

SCALE	AS SHOWN
JOB NO.	18-2046
SHEET	OF
1	3



POND - PLAN VIEW
SCALE: 1" = 20'



SILT FENCE
NOT TO SCALE

NO.	REVISION	DATE	BY

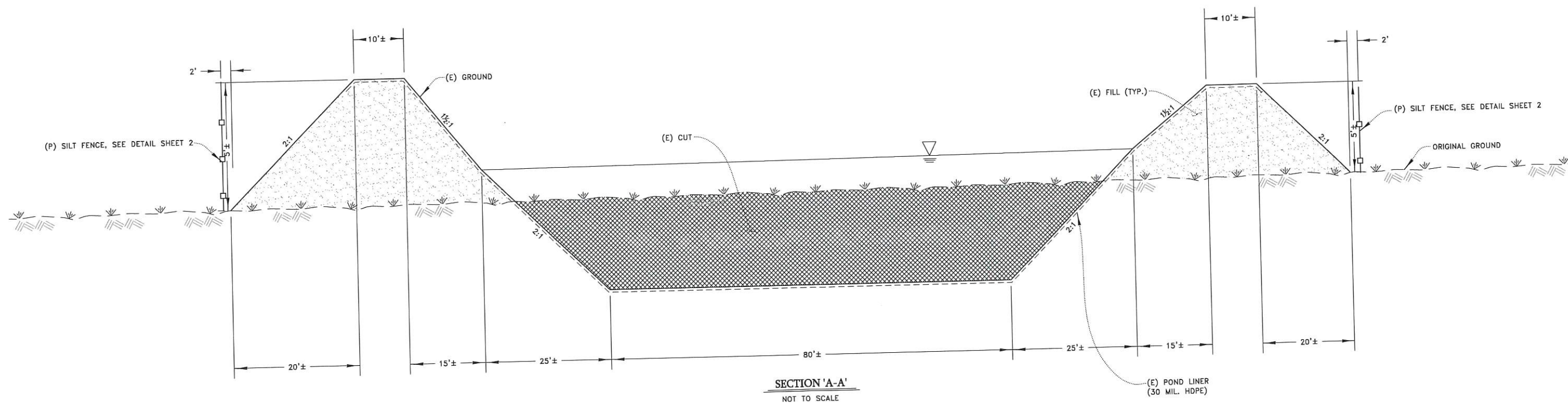
OMSBURG & PRESTON
434 7th Street
Eureka, California
95501
Telephone
(707) 443-8851
SURVEYORS PLANNERS ENGINEERS

DESIGNED BY: SGN
DRAWN BY: CWB
ENGINEER OF WORK: Stephen G. Nesvold
DATE: 08/03/18
DATE: 08/03/18
RCE: 25681

APN 223-044-010

**POND - PLAN VIEW
SILT FENCE DETAIL**
for
BOB HOWARD
in the unincorporated area of Humboldt County
Section 7 & 18, T.5S., R.4E., H.B.&M.

SCALE AS SHOWN
JOB NO. 18-2046
SHEET 2
OF 3



SECTION 'A-A'
NOT TO SCALE

D:\Projects\Civil\18-2046_Howard\dwg\18-2046_CROSS-03.dwg 11/13/2018 9:39 AM

DESIGNED BY: SGN DRAWN BY: CWB ENGINEER OF WORK: Stephen G. Nesvold DATE: 08/03/18 RCE: 25681				APN 223-044-010 POND - SECTION for BOB HOWARD In the unincorporated area of Humboldt County Section 7 & 18, T.5S., R.4E., H.B.&M.		SCALE AS SHOWN JOB NO. 18-2046 SHEET 3 OF 3	
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NO. REVISION DATE BY

OMSBERG & PRESTON
 434 7th Street
 Eureka, California
 95501
 Telephone (707) 443-8851
 SURVEYORS PLANNERS ENGINEERS