

**COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT**

DATE: May 13, 2024

TO: Agricultural Advisory Committee

FROM: Summer Burlison, Project Planner, sburlison@smcgov.org

SUBJECT: Consideration of a Coastal Development Permit (CDP), Planned Agricultural District Permit, Architectural Review Permit, and After-the-Fact Grading Permit to construct a new 2,750 sq. ft. single-story, pre-manufactured affordable housing unit with a 360 sq. ft. detached two-car carport, and supporting improvements, on a legal 17.4-acre parcel. A total of 1,250 cubic yards (c.y.) of grading is associated with the project, including 630 c.y. of cut and 620 c.y. of fill, and no tree removal. The property is located within the Cabrillo Highway State Scenic Corridor at 12850 Cabrillo Highway in the unincorporated Pescadero area of San Mateo County. The CDP is appealable to the California Coastal Commission.

County File Number: PLN2018-00168 (Jahns)

PROPOSAL

The applicant is seeking a Coastal Development Permit (CDP), Planned Agricultural District (PAD) Permit, Architectural Review Permit, and After-the-Fact Grading Permit to construct a new 2,750 sq. ft., single-story, detached pre-manufactured affordable housing unit, a 360 sq. ft. detached two-car carport, septic system, and two 5,000-gallon water tanks, in an undeveloped area of the 17.4-acre parcel at 12850 Cabrillo Highway in Pescadero. An existing agricultural well located in the rear yard of the property is proposed to be converted for domestic use to serve the new unit. The project includes 1,250 c.y. of grading, of which 1,240 c.y. of grading (620 c.y. of cut and 620 c.y. of fill) were previously completed to reduce the 9% slope of the site area in preparation for the proposed development. Ten (10) additional c.y. of cut are proposed to accommodate the foundation for the proposed residential unit. No tree removal is proposed.

The project will constitute the second affordable housing unit on the property. The proposed affordable unit and supporting improvements will utilize an existing paved driveway and gravel road for access.

DECISION MAKER

Planning Commission

QUESTIONS FOR THE AGRICULTURAL ADVISORY COMMITTEE

1. Will the proposal have a negative effect on surrounding agricultural uses? If yes, can any conditions of approval be recommended to minimize the impact?
2. What decision do you recommend that the Board of Supervisors take with respect to this application?

BACKGROUND

Report Prepared By: Summer Burlison, Project Planner, sburlison@smcgov.org

Applicant/Owner: Debbie Jahns

Location: 12850 Cabrillo Highway, Pescadero

APN: 086-142-010

Parcel Size: 17.4 acres

Existing Zoning: Planned Agricultural District/Coastal Development (PAD/CD)

General Plan Designation: Agriculture

Local Coastal Plan Designation: Agriculture

Williamson Act: Not contracted

Existing Land Use: Residential, pastures

Water Supply: The project proposes to convert an existing agricultural well to domestic use to serve the new residential unit.

Sewage Disposal: The project includes a new septic system to support the proposed development.

Flood Zone: Flood Zone X (area of minimal flood hazard), FEMA Panel No. 06081C0431F and 0681C0368F; effective August 2, 2017.

Environmental Evaluation: An Initial Study and Mitigated Negative Declaration were prepared and circulated from April 4, 2024 to April 23, 2024, pursuant to the California Environmental Quality Act (CEQA) Guidelines. One comment letter was received during the 20-day public review period from Caltrans identifying their standard requirements for any potential increased stormwater runoff to State drainage systems or

facilities and the requirement for a Caltrans encroachment permit for any temporary or permanent work encroachment within the Caltrans right-of-way (ROW).

Setting: The 17.4-acre project parcel is located adjacent to, and east of, Cabrillo Highway (State Route 1), south of Pescadero Creek Road and north of Bean Hollow State Beach. The property is largely undeveloped, primarily supports grasses and shrubs, contains several pasture areas, and gently slopes east to west. The property is accessed by an existing paved driveway and developed with an existing single-family residence and detached affordable housing unit towards the north and central portions of the property.

Chronology:

<u>Date</u>	<u>Action</u>
March 21, 1991	- Building permit finalized for the construction a single-family residence and three-car garage (BLD 90-1309; PAD 90-1; CDP 90-3; ARC90-01).
January 13, 1992	- PAD permit and CDP approved for a detached single-story affordable housing unit, attached garage, and fire turnaround (PAD 92-0013; CDP 92-0047; ARC 92-0018; ENV 93-0031)
May 17, 1993	- Building permit finalized for the construction of a single-story affordable housing unit (BLD 92-131).
May 7, 2018	- Subject application submitted for the construction of a second, single-story affordable housing unit (PLN2018-00168).
April 4, 2024	- Application deemed complete.
April 4-April 23, 2024	- Circulation of Initial Study and Mitigated Negative Declaration.
May 13, 2024	- Agricultural Advisory Committee hearing.
TBD	- Planning Commission hearing.

Will the project be visible from a public road?

Yes, the project will be minimally visible from Highway 1 (Cabrillo Highway) as the project parcel fronts Highway 1 along its west property line. The project site is approximately 40 feet higher in elevation than, and 650 feet away from, the highway. A line of existing trees and vegetation along a majority of the front property line that abuts

Highway 1 helps to screen the project site. However, there is a break in screening vegetation along the left front property line to accommodate a driveway and pasture area. The proposed development would be visible while traveling south on Highway 1 due to this gap.

Will any habitat or vegetation need to be removed for the project?

Yes, but minimal. The project will be located in an undeveloped area of the parcel currently used as a pasture area. Removal of pasture grasses will be necessary to accommodate the project. No trees are proposed for removal. The project site is not located near any creeks or riparian areas.

Is there prime soil on the project site?

Yes. The project parcel contains Class III soils. The location of the subject affordable housing unit would be within the prime soils as mapped by the General Plan. However, in conjunction with the permitting of the first affordable housing unit in 1992, the applicant successfully contested the determination of prime soils on site. As such, though mapped to contain prime soils, site specific testing performed in 1992 (which was reviewed and approved by the Natural Resources Conservation Service) concluded that areas of the project parcel with a 9% or greater grade (which includes the project site for the proposed affordable unit) does not contain prime soils as defined due to the erodibility from irrigation. Further discussion can be found in Section A.2.b. below.

DISCUSSION

A. KEY ISSUES

Planning staff has reviewed this proposal and has concluded the following:

1. Conformance with the General Plan

Staff has reviewed the project and found it to be in conformance with the applicable General Plan policies as follows:

a. Visual Qualities

Policy 4.15 (*Appearance of New Development*) and Policy 4.22 (*Scenic Corridors*) seek to regulate development to promote good design, site relationships, and to protect and enhance the visual quality of development within designated scenic corridors.

The project site is within the Cabrillo Highway State Scenic Corridor. The proposed single-story affordable housing unit will be located near the right-side property line, utilize existing onsite road infrastructure, will be screened from view while traveling north on Highway 1 by

existing vegetation, and will be minimally visible while traveling south on Highway 1 due to its distance (660 feet) from the roadway. The development will use natural colors and materials to blend in with the natural rural setting of the area.

b. Rural Lands

Policy 9.23 (*Land Use Compatibility in Rural Lands*) and Policy 9.30 (*Development Standards to Minimize Land Use Conflicts with Agriculture*) encourage compatibility of land uses in order to promote the health, safety, and economy of rural lands, seek to maintain the scenic and harmonious nature of rural lands, and seek to: (1) promote land use compatibility by encouraging the location of new residential development immediately adjacent to existing developed areas, and (2) cluster development so that large parcels can be retained for the protection and use of vegetative, visual, agricultural, and other resources.

The project parcel has a land use designation of “Agriculture” and is dominated by open grasslands. Compared to the size of the parcel, the existing and proposed residential development and road infrastructure constitute 7.5 % of the land area with the remainder of the parcel dedicated to open space, grasslands, and stables.

The rural residential use of this parcel is compatible with the rural residential structures located on site and on adjacent properties. The project will not be located on the rear ridgeline, preserves the open space in the front of the parcel, is of similar scale and size to the development on site, will utilize existing road infrastructure, and will employ natural colors and materials to further blend into the landscape.

c. Wastewater

Policy 11.10 (*Wastewater Management in Rural Areas*) considers individual sewage disposal systems as an appropriate method of wastewater management in rural areas.

The project site is located in a rural area with no public water or sewage system. The applicant proposes to construct an on-site septic system to meet the project’s needs. The proposed septic system’s location, size, and design has been reviewed and conditionally approved by the County’s Environmental Health Services.

2. Conformance with Local Coastal Program (LCP) Policies

Staff has determined that the proposed development conforms to all applicable Local Coastal Program (LCP) Policies, specifically:

a. Housing

Policy 3.1 (*Sufficient Housing Opportunities*) encourages the provision of housing opportunities for persons of low and moderate income who reside, work, or can be expected to work within the Coastal Zone while Policy 3.24 (*Density Bonus for Affordable Housing in Rural Areas*) allows 30 affordable units of housing in the rural areas of the South Coast.

The subject proposal furthers the goal of constructing more affordable housing units within the Coastal Zone. To ensure that the unit will be available to those of low to moderate incomes, approval of this project will require a deed restriction and be conditioned to maintain required rent and tenant income levels set by the Department of Housing. Approval of this unit would constitute the twenty-fourth affordable unit in the South Coast, thus falling within the thirty-unit-limit.

Policy 3.13 (*Maintenance of Community Character*) requires that new development providing housing opportunities for low- and moderate-income persons contribute to maintaining a sense of community character by being of compatible scale, size, and design. Policy 3.13 further limits the height of affordable units to two stories to mitigate impacts of development on surrounding neighborhoods and to mitigate as much as possible potential negative traffic impacts from the development.

Existing residential development on site consists of a single-story main residence and detached single-story affordable housing unit. The main residence, built in 1990-1991, is approximately 3,020 sq. ft. in size and contains a 1,250 sq. ft. three-car garage. The existing affordable housing unit was built approximately a year later and consists of 2,188 sq. ft. of living space and a 616 sq. ft. two-car garage. The proposed four-bedroom, three-bathroom, single-story, 2,750 sq. ft. second affordable unit with 360 sq. ft. two-car carport is comparable in size and scale to existing development. Furthermore, the unit will utilize the existing road and driveway infrastructure and is not expected to generate a significant amount of traffic such that negative traffic impacts are expected.

b. Agriculture

Policy 5.1 (*Definition of Prime Agricultural Lands*) defines prime agricultural lands as all lands which contain soils rated Class I, Class II, as well as Class III soils rated capable of growing artichokes or Brussels sprouts.

Per the Productive Soil Resource with Agricultural Capability General Plan Map, most of the project parcel, including the site location for the proposed second affordable unit, is considered to contain Class III soils capable of growing artichokes or Brussels sprouts.

During the 1992 permitting of the existing affordable unit on site, the applicant successfully contested this determination of prime soils by submitting a site-specific soils survey. The 1992 soils survey concluded that the Class III soils on site cannot be considered prime soils capable of supporting the cultivation of artichokes and/or Brussels sprouts if the site gradient is greater than 9% due to soil erodibility from necessary irrigation. The NRCS (formally the Soils Conservation Service) reviewed the submitted work and concurred with the conclusion that the 1992 project site did not qualify as containing prime soils.

The location of the proposed affordable unit is 300 feet away from the soil sampling locations that were taken in 1992. Regarding soils composition, though no specific soils testing was performed for this application, Sigma Prime Geoscience, Inc. has confirmed that the soil types throughout the property are of similar texture and composition with little variation.

Though the existing conditions on site show that the project site is located in an area of the parcel with a less than 9% slope, a 2019 site visit revealed that grading work had occurred without permits in preparation for the proposed modular affordable unit. This grading included 620 c.y. of cut and 620 c.y. of fill and leveled out the project area such that the topography of the project site was reduced to a less than 9% slope. However, a grading plan with the original topography of the site (prior to the grading work) illustrates that the original project site had a greater than 9% average slope.

With a soil composition of the project site similar to those tested in the 1992 soils survey and an original site location that had a greater than 9% slope, the 1992 challenge to the prime soils for the first affordable housing unit holds for the current proposal. As such, the proposed second affordable unit is considered to be located on Class III non-

prime agricultural soils that are not capable of supporting artichokes or Brussels sprouts due to its slope and associated soil erodibility.

c. Land Use

Policy 1.8 (*Land Uses and Development Densities in Rural Areas*) states that new development in rural areas shall not: (1) have significant adverse impacts, either individually or cumulatively on coastal resources, or (2) diminish the ability to keep all prime agricultural land and other lands suitable for agriculture in agricultural production.

As discussed above, the proposed second affordable unit will have minimal impacts on coastal resources including scenic views and prime soils. The project location provides the greatest amount of screening from public viewshed and utilizes existing road infrastructure to minimize soil impacts and disturbance on the property. Though the construction of the project will result in the conversion of lands suitable for agriculture, no active agricultural activities are performed on site, nor does the owner plan to engage in active farming activities. Similarly, the size of the parcel at 17.4-acres is too small to support a commercial grazing or cattle rearing operation and there are no plans to acquire additional adjacent lands to establish such an operation. The project does not significantly impact the parcel's ability to support agricultural activities as the development has been clustered near the existing onsite access road infrastructure and foothills of the peak in the rear of the property in order to preserve the open space at the front portion of the parcel for the possibility of potential agricultural activities in the future.

3. Conformance with Planned Agricultural District (PAD) Regulations:

a. Conformity with the PAD Development Standards

As shown in the table below, the proposed residential unit complies with Sections 6358 and 6359 of the San Mateo County Zoning Regulations, which regulates the height and required setbacks of structures.

	PAD Development Standards	Proposed
Minimum Lot Size	N/A	17.4 acres (existing)
Minimum Front Setback	50 feet	661 feet
Minimum Side Setbacks	20 feet	25 feet (right) 520 feet (left)
Minimum Rear Setbacks	20 feet	675 feet
Maximum Building Height	36 feet	15 feet

b. Conformance with the Criteria for the Issuance of a PAD Permit

In order to approve and issue a PAD permit, the project must comply with the substantive criteria for the issuance of a PAD permit, as outlined in Section 6355 of the Zoning Regulations. As proposed, the project complies with the following applicable policies.

(1) General Criteria

- (a) *The encroachment of all development upon land which is suitable for agriculture shall be minimized.*

The project site for the subject affordable housing unit will be located on land suitable for agriculture and other lands as determined pursuant to Section A.2.b. above. See staff's discussion in Section A.1.b. (Rural Lands) above.

- (b) *All development permitted on a site shall be clustered.*

The location of the proposed unit and associated structures have been clustered towards the central portion of the property to maintain the front half of the property free from development obstructions. The unit will be located approximately 275 feet from the nearest residential unit on site to preserve an existing fenced paddock/grazing area but will be clustered near an existing gravel driveway and will not require the construction of additional road infrastructure. Furthermore, all existing and proposed residential development is located near the foothills associated with a ridge at the back of the property to preserve the flatter open spaces at the front of the property as grasslands for grazing and open space.

- (c) *Every project shall conform to the Development Review Criteria contained in Chapter 20A.2 of the San Mateo County Ordinance Code.*

The project has been reviewed under and found to comply with the Development Review Criteria in Chapter 20A.2 of the County Zoning Regulations. Specifically, the project complies with the Site Design, Scenic, Utilities, and Water Resources Criteria by not introducing noxious odors, chemical agents, or long-term noise levels, retaining the rural nature of the parcel, installing utilities underground, not involving the removal of significant amounts of vegetation, and clustering nearest existing development and road infrastructure, thereby reducing grading necessary to access the site.

(2) Water Supply Criteria

- (a) *The existing availability of water shall be demonstrated for all non-agricultural uses. Each existing parcel developed with non-agricultural uses shall demonstrate a safe and adequate well water source located on that parcel.*

The proposed project will constitute the second affordable unit on site and proposes to convert an existing agricultural well at the rear of the property for potable water to serve the new unit. This proposal has been reviewed and conditionally approved by Environmental Health Services (EHS). As a part of the conditional approval, EHS will require final confirmation of the quality and quantity of the water provided by the well on site to ensure that it meets the minimum domestic standards for the proposed residential unit prior to building permit final.

- (b) *Adequate and sufficient water supplies needed for agricultural production and sensitive habitat protection in the watershed are not diminished.*

The project proposes to convert an existing agricultural well onsite and does not rely upon surface water for potable purposes. In addition to residential use, the property supports the keeping of donkeys, goats, chickens, pigs, and ducks; however, does not support high water demand activities or agricultural operations. Furthermore, the occupation of the proposed residential unit is not

expected to reduce the water supplies needed for adjacent agricultural production.

(3) Criteria for the Conversion of Lands Suitable for Agriculture and Other Lands

Conversion of lands suitable for agriculture and other lands is permitted in the PAD when the following can be demonstrated:

- (a) *All agriculturally unsuitable lands on the parcel have been developed or determined to be undevelopable.*

The majority of the parcel is comprised of grasslands, not under agricultural production, and utilized as grazing/pasture areas for small farm animals. The rear of the parcel contains a ridge line and the most agriculturally unsuitable lands on site due to its slope and eroded soils. Locating the residential unit further towards the rear property line is not encouraged, however, as this action would place the unit on a ridge line in conflict with General Plan and LCP policies, result in development not clustered near existing development, and require the construction of additional road infrastructure and grading. Locating the structure closer to the front property line is similarly not encouraged as it would also result in increased visual impacts from Cabrillo Highway, unclustered development, and necessitate the construction of additional road infrastructure and increased grading.

The proposed location of the project is the most suitable location onsite when considering ridgeline protection policies, Highway 1 scenic corridor policies, and clustering of development policies. Furthermore, the proposed location of the project protects the agricultural capability of the parcel by preserving the flatter undeveloped area in the front of the parcel for potential agricultural production in the future.

- (b) *Continued or renewed agricultural use of the soils is not capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.*

No active commercial agriculture is present on site and at 17.4-acres in size, the subject parcel is not large enough

to support a commercial grazing and/or cattle raising operation. Though surrounding parcels do contain active agriculture (i.e., crops) and/or grasslands suitable for grazing they are held under separate ownership. There are no plans to combine and lease the land for either cattle rearing/grazing and/or for a commercial agriculture operation. Furthermore, the applicant has stated that they do not farm the area where the proposed residential unit will be due to the poor and eroded soils.

- (c) *Clearly defined buffer areas are developed between agriculture and non-agricultural uses.*

The proposed unit will be located 78 feet from a paddock to the west, 113 feet from a paddock to the north, and 30 feet from agricultural activities (row crop farming) on the adjacent parcel to the south. Staff believes that these setbacks provide an adequate buffer between the agricultural vs. non-agricultural uses adjacent to and on the subject property.

- (d) *The productivity of any adjacent agricultural lands is not diminished, including the ability of the land to sustain dry farming or animal grazing.*

The project parcel is located between two actively farmed parcels to the north and south. The parcel to the north is undeveloped while the parcel to the south contains residential use associated to an onsite agricultural operation. The subject affordable unit is located near the southern property line of the project parcel, will be approximately 275 feet from the nearest development on site, and 350 feet from the nearest development located on the southern adjacent parcel. There is no expectation that the construction and occupation of the subject residential unit and associated infrastructure would impact the productivity of the adjacent agricultural lands.

- (e) *Public service and facility expansions and permitted uses do not impair agricultural viability either through increased assessment costs or degraded air and water quality.*

The proposed development will be served by a private well and onsite septic system and does not necessitate the expansion of a public service. All new utility lines will be installed underground as required by the Zoning. It is not

expected that the agricultural viability on the subject parcel and/or adjacent parcels would be impaired by the construction of a second affordable unit as the subject parcel will retain several large paddocks and a majority of its grassland vegetation open for grazing.

4. Conformance with the Grading Ordinance

Previous grading activities have occurred on site in preparation for the subject development. These grading activities involved 1,240 c.y. of grading comprised of 620 c.y. of cut and 620 c.y. of fill (spread out on site as fill to provide a level area on which to locate the structure). An additional 10 c.y. of cut are proposed to accommodate the foundation of the modular unit.

Staff has reviewed the proposal against the required findings for the issuance of an After-the-Fact Grading Permit and concluded that the project as conditioned conforms to the criteria for review contained in Section 9280 of the Grading Ordinance such as the standards for erosion and sediment control and submittal of a geotechnical report. As the LCP and PAD Zoning District seek to preserve agricultural lands, the proposed location of the affordable unit balances the interest of these areas of concern against the Grading Ordinance which seeks to minimize grading and erosion impacts. Though there are flatter areas of the parcel in which to locate the affordable unit, relocating the structure to area of less than 9% slope would place the structure on prime soils (which is not permitted), require additional grading beyond the site preparation work that has occurred, and result in unclustered development. The proposed location of the subject affordable unit provides adequate buffers from existing agricultural development adjacent to the project parcel, while preserving the front flattest area of the parcel for potential future agricultural activities.

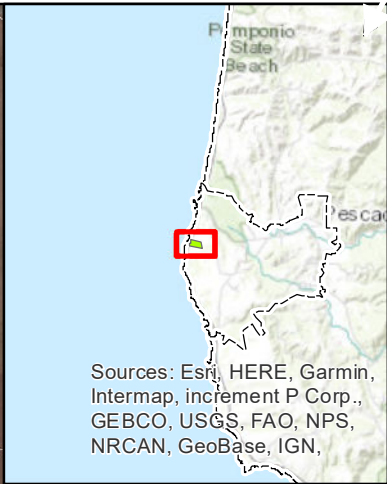
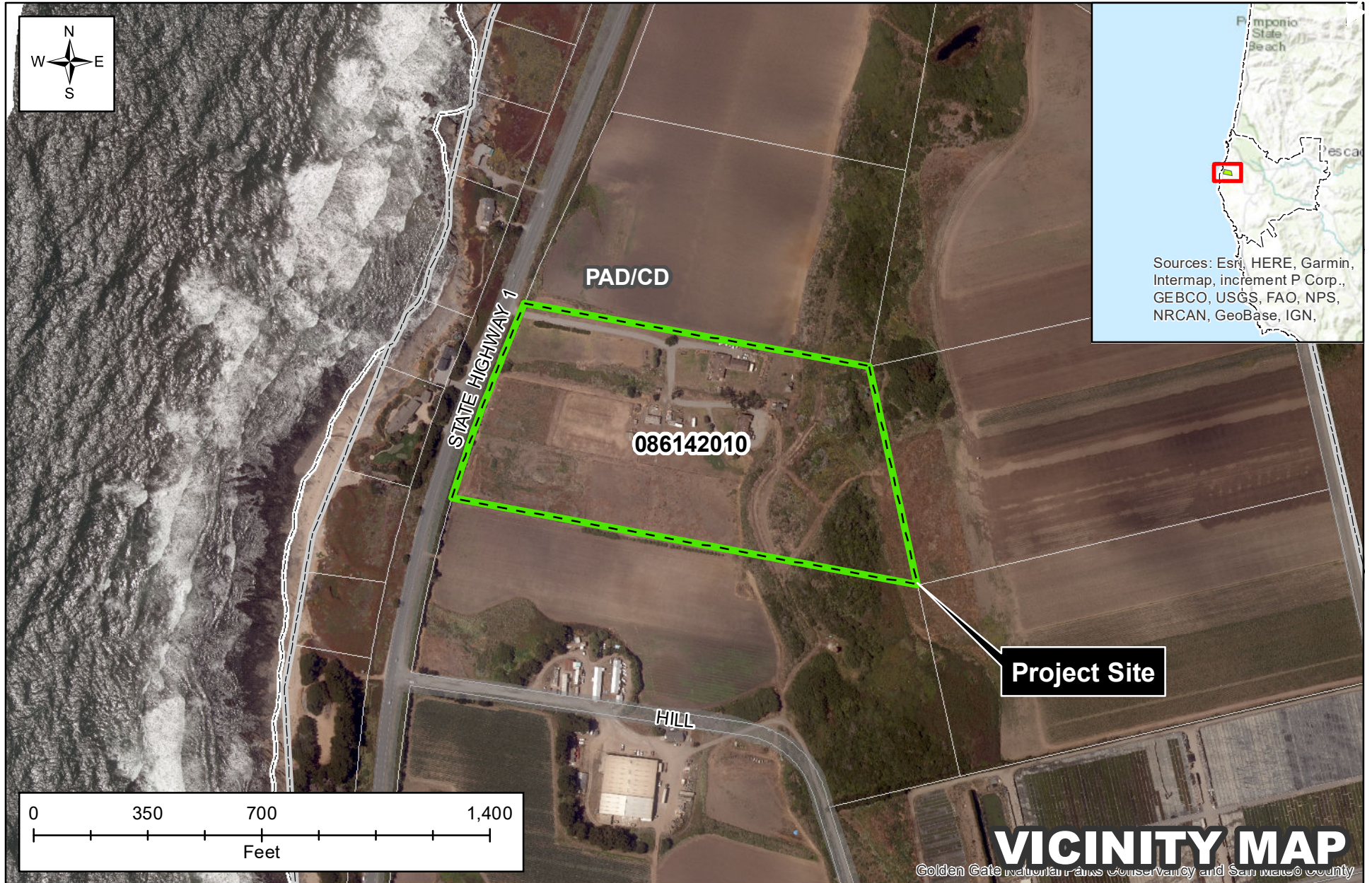
ATTACHMENTS

- A. Vicinity Map
- B. Project Plans
- C. 1992 Prime Soils Challenge
- D. 2021 Sigma Prime Geosciences, Inc. Review of Soils Classification

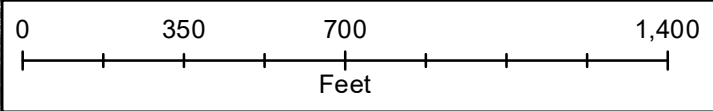


COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT A



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN,



Project Site

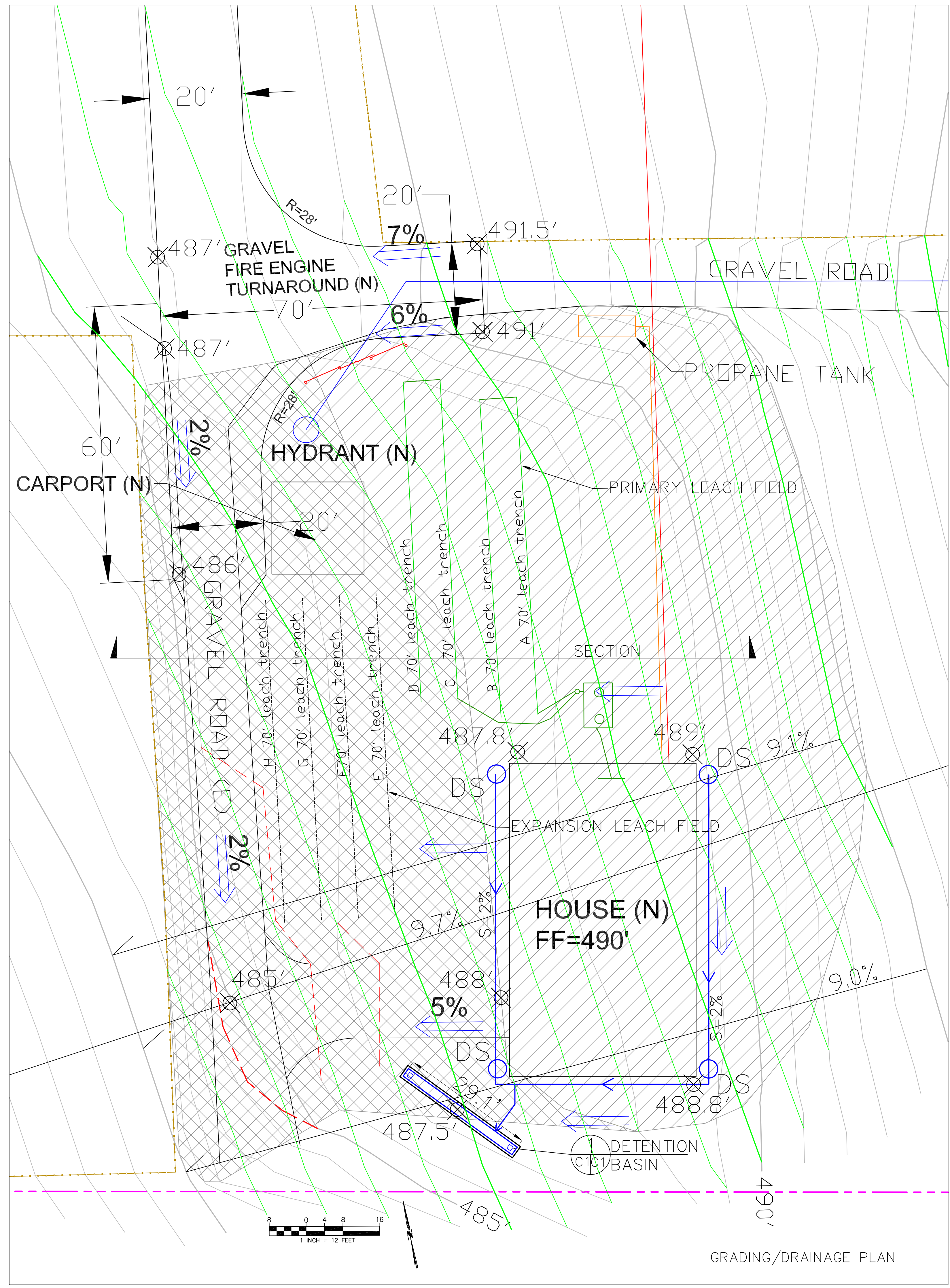
VICINITY MAP

Golden Gate National Parks Conservancy and San Mateo County



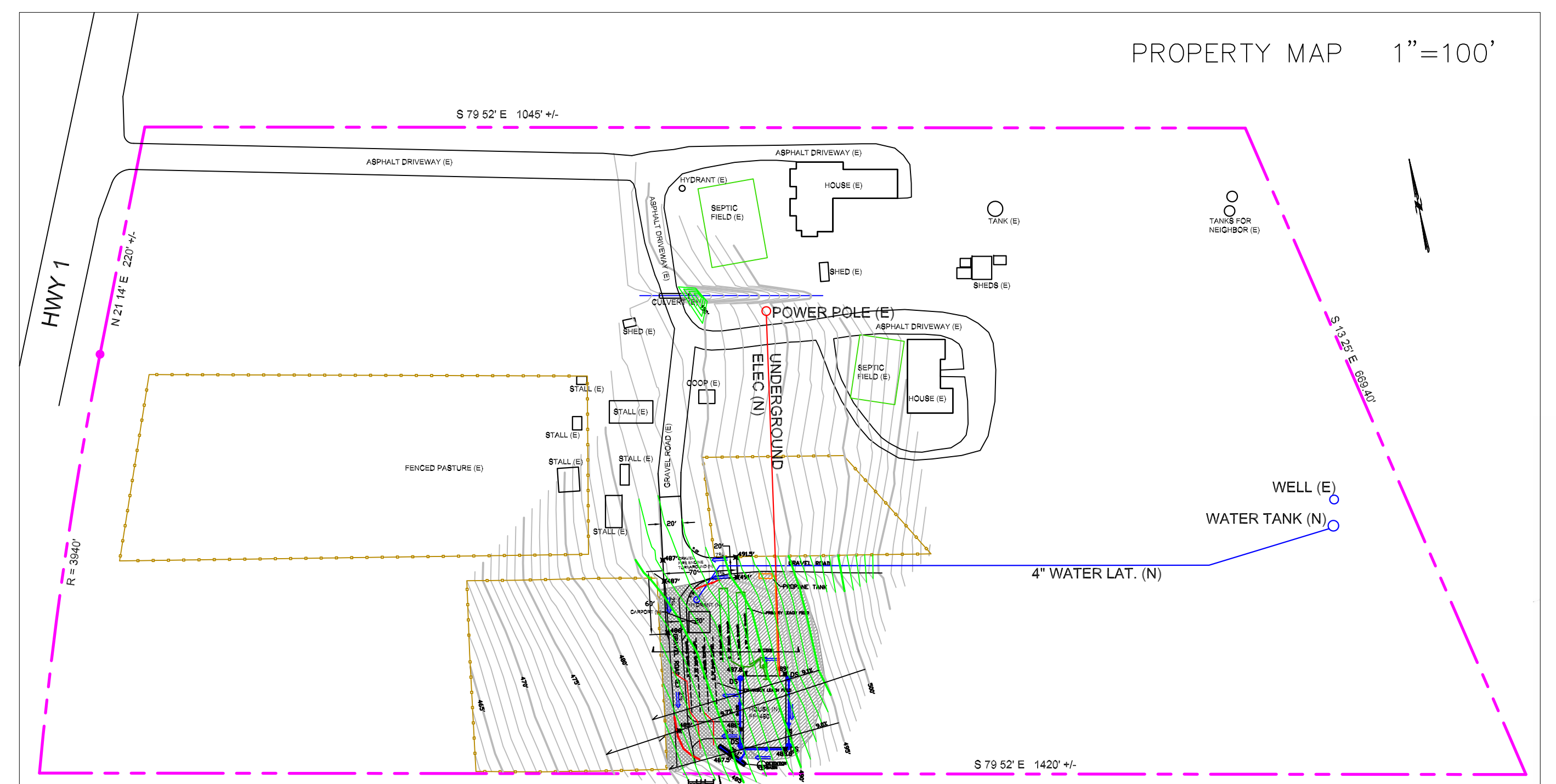
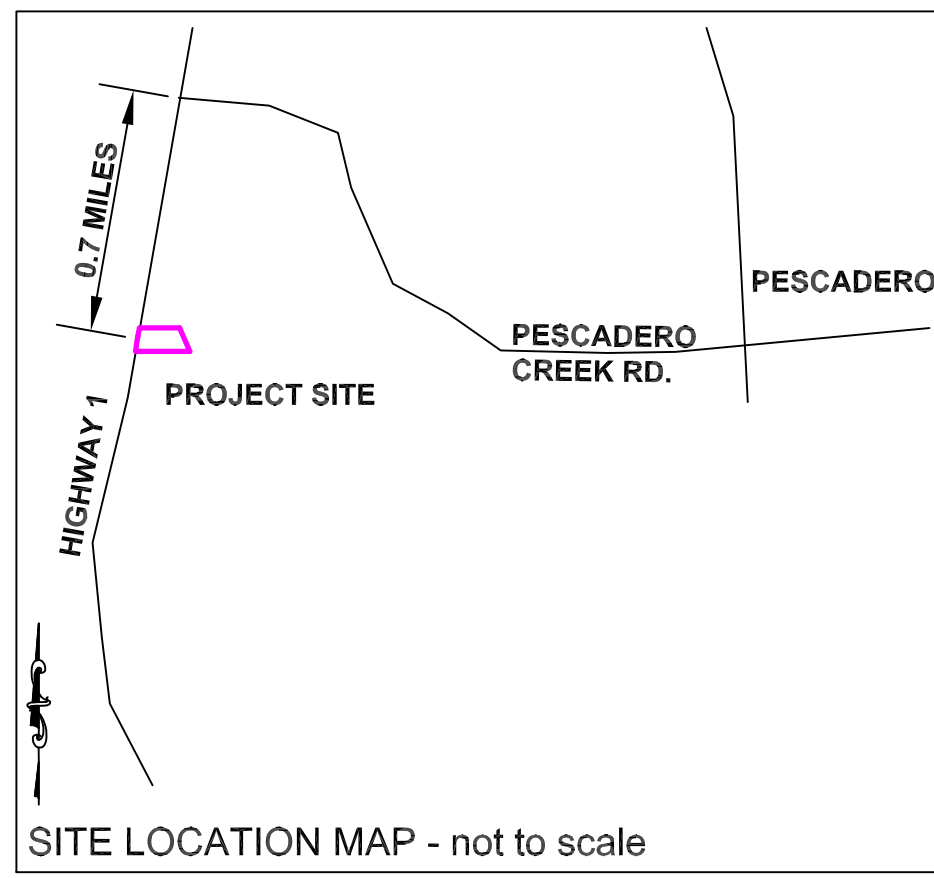
COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT B



- LEGEND**
- ORIGINAL CONTOURS
 - EXISTING CONTOURS
 - PROPOSED CONTOURS
 - PROPOSED SPOT ELEVATION
 - DOWNSPOUT
 - 4" SOLID DRAIN PIPE
 - DIRECTION OF SHEET FLOW
 - CUT
 - FILL

- GENERAL NOTES**
- PLANS PREPARED AT THE REQUEST OF: DEBBIE JAHNS, PROPERTY OWNER.
 - TOPOGRAPHY SURVEYED BY SIGMA PRIME, NOVEMBER, 2019.
 - PROPERTY LINES ARE APPROXIMATE. THIS IS NOT A BOUNDARY SURVEY.



GRADING NOTES

CUT VOLUME : 620 CY
 FILL VOLUME: 620 CY

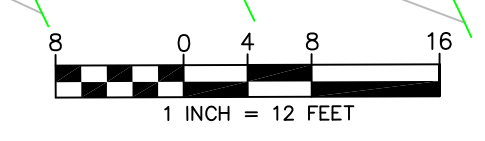
VOLUMES ABOVE ARE APPROXIMATE.

THE SUBGRADE BELOW ALL PAVED AREAS SHALL BE BASEROCK COMPACTED TO 95%.

ALL GRADING SHALL CONFORM TO LOCAL CODES AND ORDINANCES.

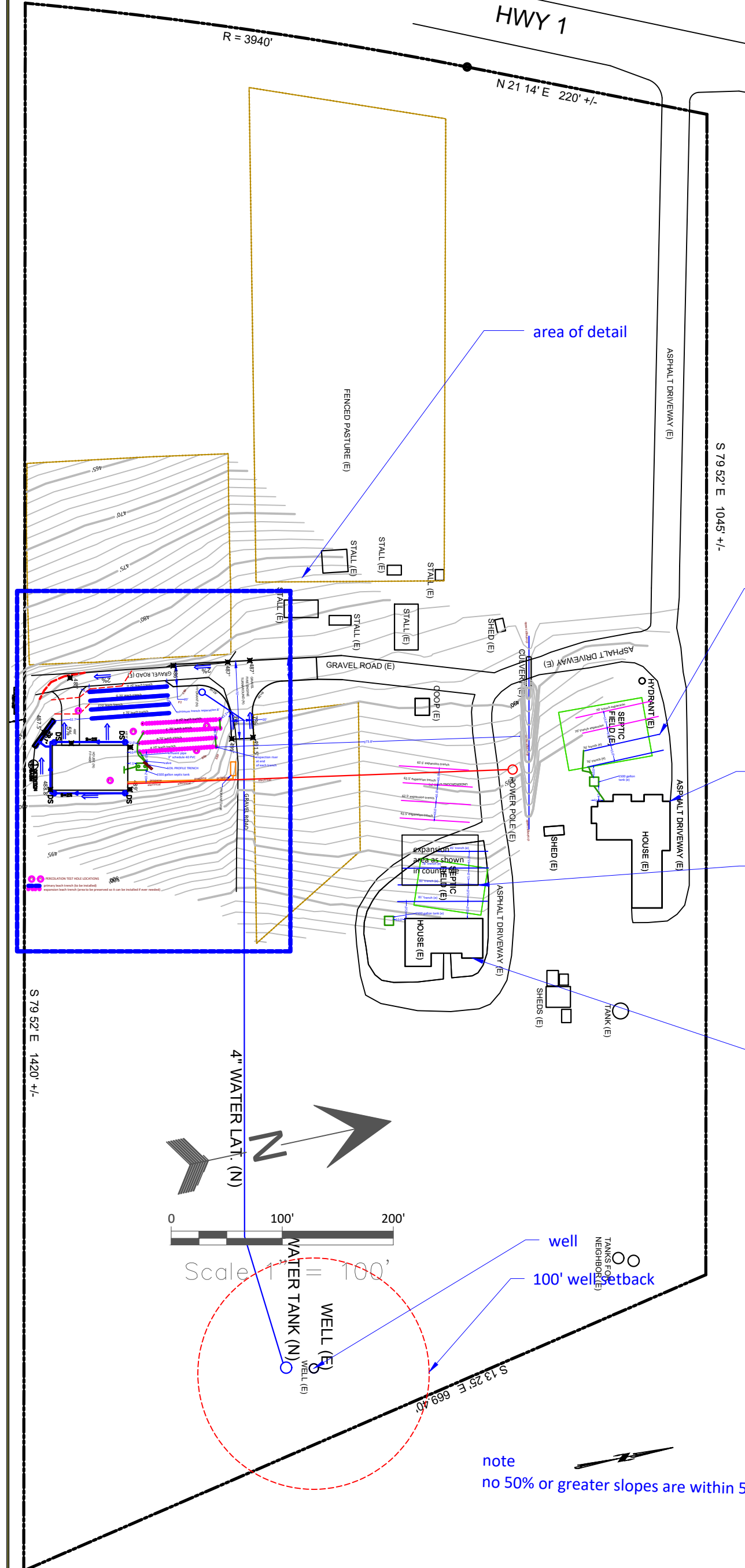
ALL TRENCHES UNDER PROPOSED PAVED AREAS OR CONCRETE SHALL BE BACKFILLED TO SUBGRADE ELEVATION WITH COMPACTED APPROVED GRANULAR MATERIALS. IF TRENCHES ARE IN PROPOSED LANDSCAPE AREAS, THEY SHALL BE BACKFILLED WITH COMPACTED APPROVED GRANULAR MATERIAL TO WITHIN ONE FOOT OF FINISHED GRADE, AND THEN FILLED WITH HAND TAMPED SOILS.

Sigma Prime Geosciences, Inc. SIGMA PRIME GEOSCIENCES, INC. 320 FRANCIS AVENUE HALF MOON BAY, CA 94019 (650) 728-3630 FAX 728-3693		
DATE: 4-29-2021	DRAWN BY: CMK	CHECKED BY: AZG
	REV. DATE:	REV. DATE:
	REV. DATE:	REV. DATE:
SITE PLAN ORIGINAL TOPOGRAPHY JAHNS PROPERTY 12860 CABRILLO HIGHWAY PESCADERO, CALIFORNIA APN: 086-142-010		
SHEET C-3		



GRADING/DRAINAGE PLAN

survey (by others) of entire parcel scale 1" = 100'



arrows indicate direction of surface runoff

house 1 septic installed around 1991 (e) locations approximate

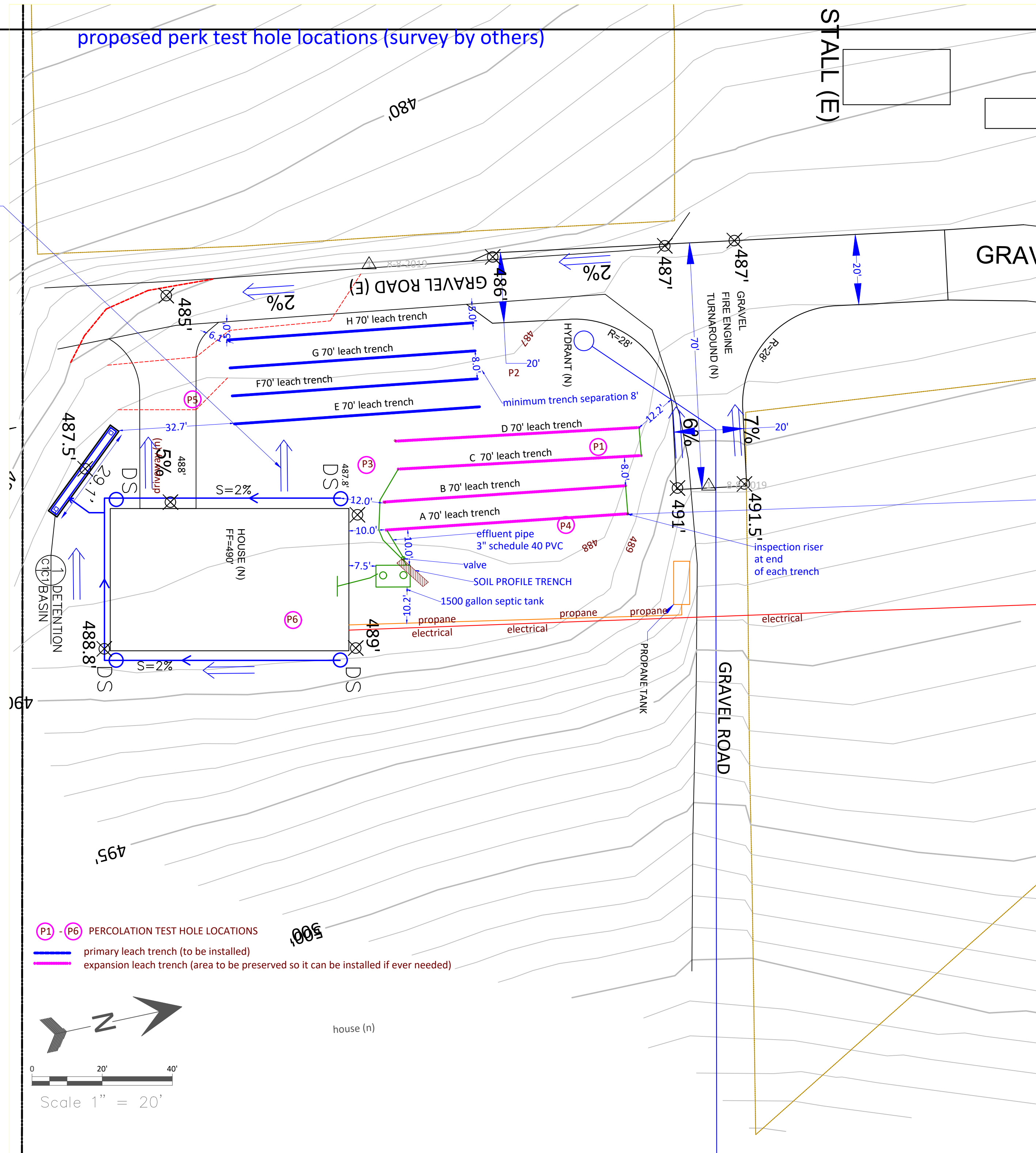
house 1 (e) built around 1991

house 2 septic installed around 1993 (e)

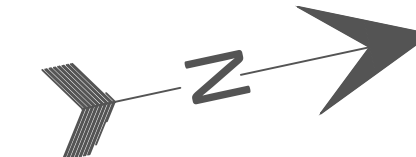
house 2 (e) built around 1993

note no 50% or greater slopes are within 50' of perk area

proposed perk test hole locations (survey by others)



P1 - P6 PERCOLATION TEST HOLE LOCATIONS
 primary leach trench (to be installed)
 expansion leach trench (area to be preserved so it can be installed if ever needed)



Scale 1" = 20'

PROJECT DISCUSSION

The owner's of this property want build a new house on this property. Since there is no public sewer available, a septic system is proposed as the means of sanitary wastewater treatment and disposal. This plan shows where and how this septic system will be installed.

On September 5, 2019 a 6 hole percolation test was performed on this site that produced an average "A" rate (copy below).

At this percolation rate a 1500 gallon tank and four leach fields (each with 70' of leach trench) are required to serve this new 3 bedroom home. In this case I have specified the use of Quick Four High Capacity Infiltrator Chambers instead of rock in the trenches, for which the County requires twice the length of trench (four leach fields each with 140 linear feet of trench) as shown.



MEASUREMENTS

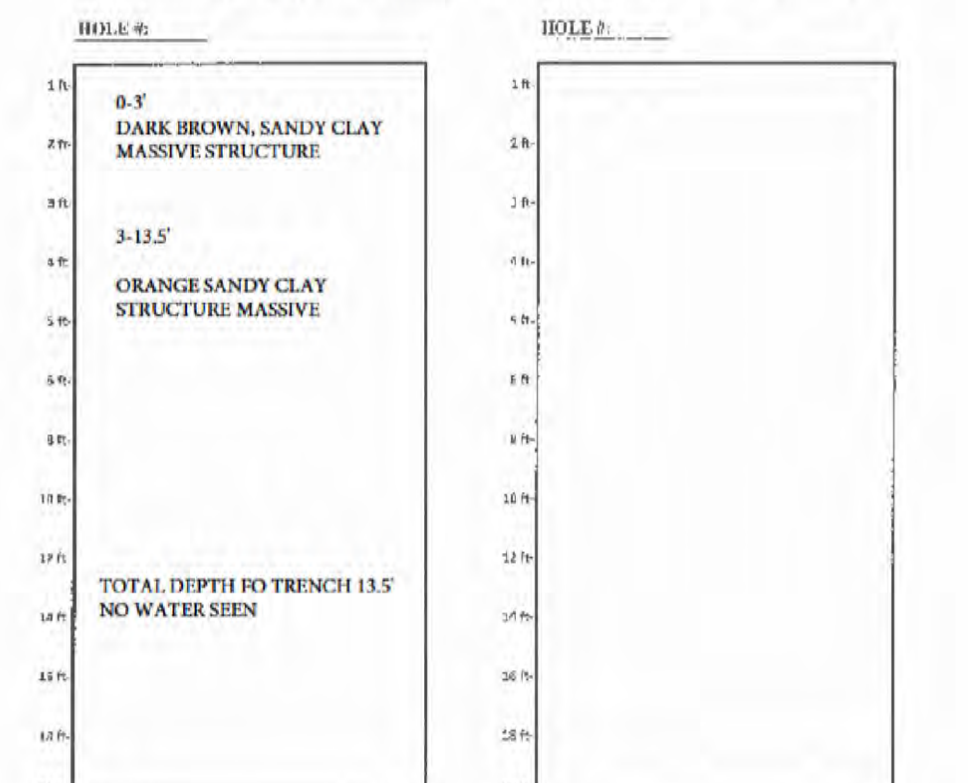
1/4 HOUR INTERVALS	READINGS	HOLE #1	HOLE #2	HOLE #3	HOLE #4	HOLE #5	HOLE #6
1	FINISH	8 3/8	5 3/8	4 1/2	3 3/4	5 1/8	4 1/4
	START	2 1/8	4 1/4	3 1/8	2 3/4	3 5/8	2 3/8
	DIFF.	6 1/8	1 1/4	1 1/4	1 1/4	1 5/8	1 7/8
2	FINISH	7 3/8	5 1/8	4 1/4	3 1/4	5 1/8	3 3/4
	START	2 3/8	3 5/8	2 3/4	2 1/8	2 3/8	2
	DIFF.	5 1/8	1 5/8	1 1/4	1 1/4	2 3/4	1 3/4
3	FINISH	6 1/2	4 1/4	4 1/4	3	4 3/4	3 3/4
	START	2 2/8	3 3/4	3 3/8	2 3/8	3 1/4	2 5/8
	DIFF.	3 3/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4
4	FINISH	6 1/4	5	4 1/4	3 1/4	4 3/4	3 3/4
	START	2 1/2	3 1/4	3 3/4	2 1/8	3 3/4	2 3/4
	DIFF.	3 3/4	1 3/4	1 1/4	1 1/4	1 1/4	1 1/4
5	FINISH	6 3/4	5 1/4	4 1/4	3 1/4	4 3/4	3 3/4
	START	2 3/4	3 3/4	3 3/8	2 3/8	3 3/4	2 3/4
	DIFF.	4 1/4	1 3/4	1 1/4	1 1/4	1 1/4	1 1/4
6	FINISH	6 3/8	5 3/8	4 1/4	3 3/4	4 3/4	3 3/4
	START	3 1/4	3 1/4	3 3/4	2 3/4	3 3/8	2 5/8
	DIFF.	3 1/4	2 1/4	1 1/4	1 1/4	1 1/4	1 1/4
7	FINISH	2 3/4	4 3/4	4 1/4	2 3/4	3 3/4	2 1/4
	START	2 3/4	4 3/4	4 1/4	2 3/4	3 3/4	2 1/4
	DIFF.	0	0	0	0	0	0
8	FINISH	5 5/8	4 3/8	4 3/4	2 3/4	3 3/4	2 1/4
	START	3	3 1/4	3 1/4	2 1/4	3	2 1/4
	DIFF.	2 5/8	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4

SITE INFORMATION

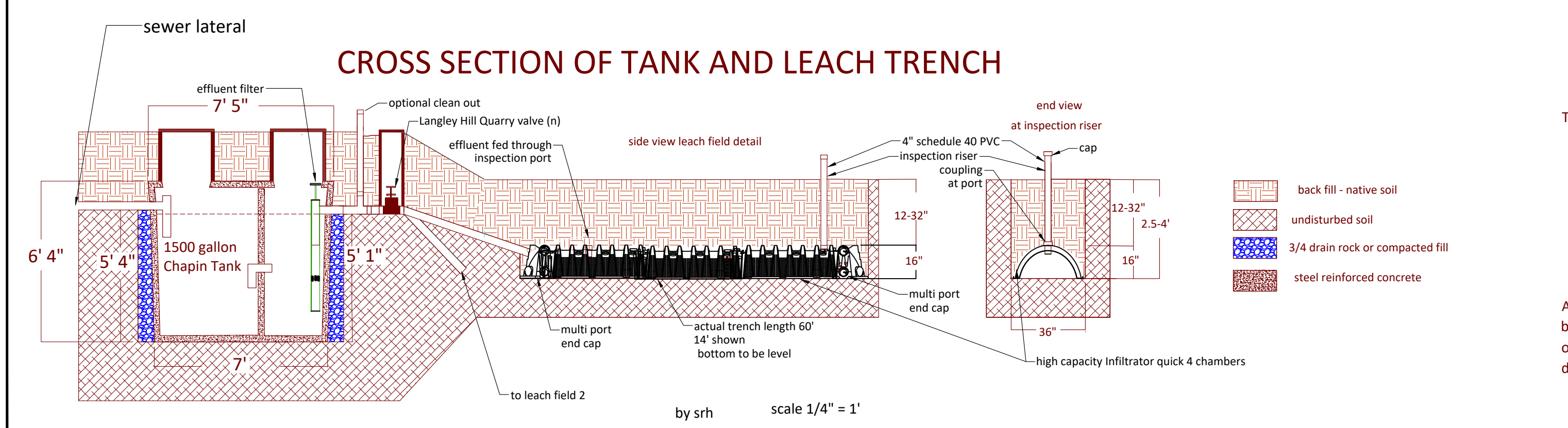
Site Address: 12150
 Size Of Parcel: 200 ACRES
 Soil Log:
 Depth To Ground Water: 2 PRY TO 14'
 Wet Weather Testing Required? YES NO
 Tested By: *Con Law* Tester #: 01
 Observed in Field By: *Allison Fung* Date: 9/5/19

SOIL PROFILE RESULTS
CONVENTIONAL SYSTEMS

SR#: 086-142-010 DATE OF INSPECTION: 9-5-2019
 APPLICANT: Debbie Johns OWNER: Debbie Johns
 SITE ADDRESS: 12850 Cabrillo Highway, Pescadero, CA 94060
 CONDUCTED BY: Con Law - Steve Hartsell CHECKED BY: Allison Fung

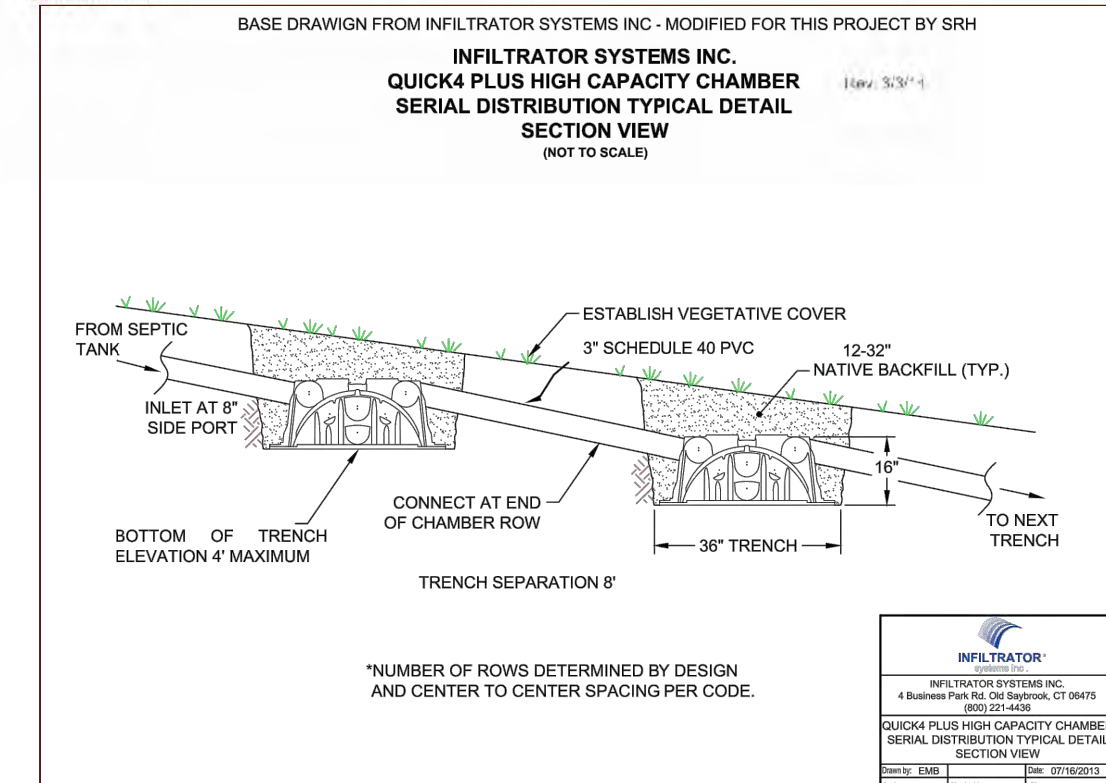


COMMENTS: BASE DRAWN FROM INFILTRATOR SYSTEMS INC. MODIFIED FOR THIS PROJECT BY SRH



SCOPE OF WORK

- The following is a brief summary of work to be done under a permit issued by San Mateo County.
1. Install new 1500 gallon Chapin Concrete Products septic tank as shown.
 2. Install new primary leach trenches as shown.
 3. Install a new valve and effluent filter as shown.
 4. Connect new Selvage septic tank to valve and valve to leach trenches and leach trenches to leach trenches as shown.
 5. Connect new sewer lateral to inlet of new tank as shown.
- All material and methods shall comply with San Mateo County regulations and policies. All work must be inspected and approved before covering it. Nothing herein should be considered to be a warranty or guarantee of any kind and the designer liability is hereby limited to \$500 or the fee paid for the design whichever is less.



SEPTIC SYSTEM PLAN

S.R. HARTSELL, R.E.H.S.
 202 WATERFORD DRIVE
 VACAVILLE, CA 95688
 shartsell@gmail.com (650) 888-2419

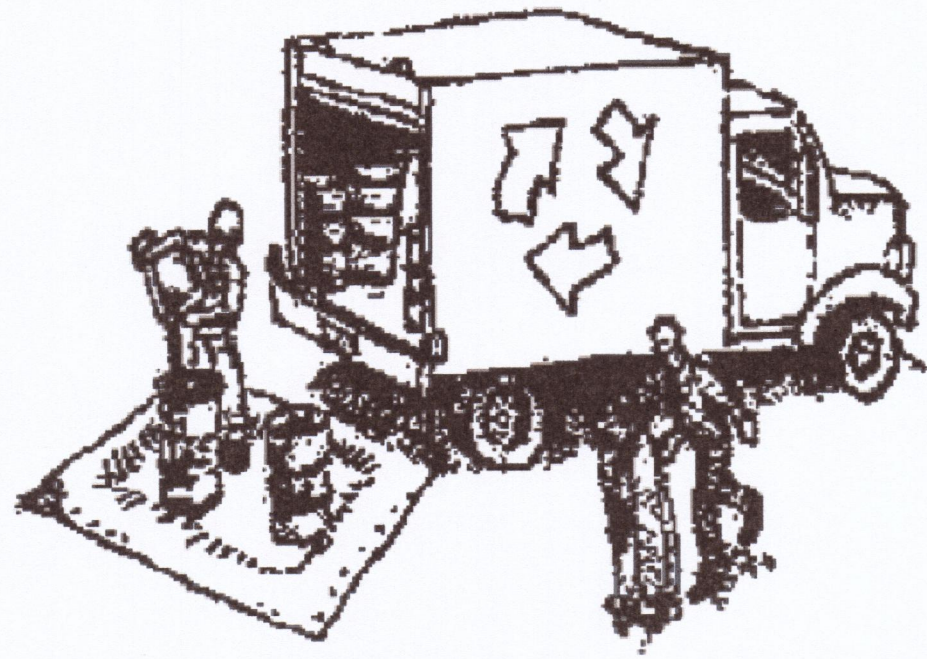
12850 CABRILLO HIGHWAY
 PESCADERO, CA 94060
 APN 086-142-010

November 23, 2019
 SCALE AS NOTED
 BY SRH
 PAGE
ONSITE
 1 OF 2

Construction Best Management Practices (BMPs)

Construction projects are required to implement the stormwater best management practices (BMP) on this page, as they apply to your project, all year long.

Materials & Waste Management



Non-Hazardous Materials

- Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or if not actively being used within 14 days.
- Use (but don't overuse) reclaimed water for dust control.

Hazardous Materials

- Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and federal regulations.
- Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- Arrange for appropriate disposal of all hazardous wastes.

Waste Management

- Cover waste disposal containers securely with tarps at the end of every work day and during wet weather.
- Check waste disposal containers frequently for leaks and to make sure they are not overfilled. Never hose down a dumpster on the construction site.
- Clean or replace portable toilets, and inspect them frequently for leaks and spills.
- Dispose of all wastes and debris properly. Recycle materials and wastes that can be recycled (such as asphalt, concrete, aggregate base materials, wood, gyp board, pipe, etc.)
- Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.

Construction Entrances and Perimeter

- Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.

Equipment Management & Spill Control



Maintenance and Parking

- Designate an area, fitted with appropriate BMPs, for vehicle and equipment parking and storage.
- Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment.

Spill Prevention and Control

- Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- Inspect vehicles and equipment frequently for and repair leaks promptly. Use drip pans to catch leaks until repairs are made.
- Clean up spills or leaks immediately and dispose of cleanup materials properly.
- Do not hose down surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags).
- Sweep up spilled dry materials immediately. Do not try to wash them away with water, or bury them.
- Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- Report significant spills immediately. You are required by law to report all significant releases of hazardous materials, including oil. To report a spill: 1) Dial 911 or your local emergency response number, 2) Call the Governor's Office of Emergency Services Warning Center, (800) 852-7550 (24 hours).

Earthmoving

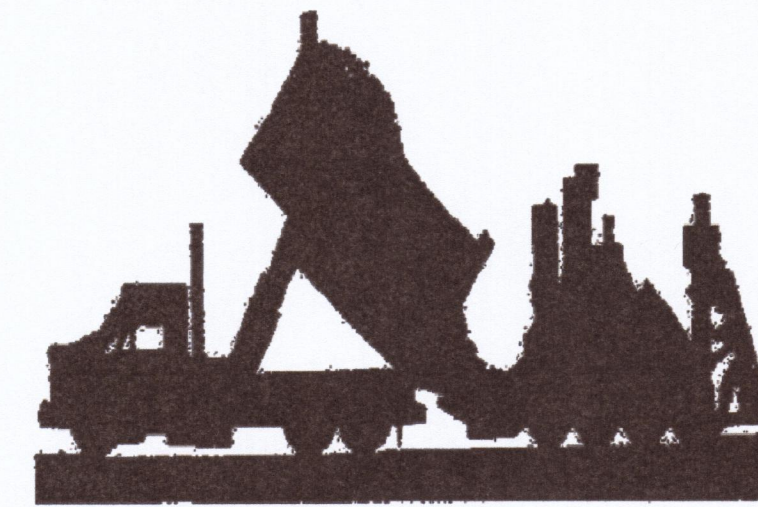


- Schedule grading and excavation work during dry weather.
- Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- Remove existing vegetation only when absolutely necessary, and seed or plant vegetation for erosion control on slopes or where construction is not immediately planned.
- Prevent sediment from migrating offsite and protect storm drain inlets, gutters, ditches, and drainage courses by installing and maintaining appropriate BMPs, such as fiber rolls, silt fences, sediment basins, gravel bags, berms, etc.
- Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

Contaminated Soils

- If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
 - Unusual soil conditions, discoloration, or odor.
 - Abandoned underground tanks.
 - Abandoned wells
 - Buried barrels, debris, or trash.

Paving/Asphalt Work

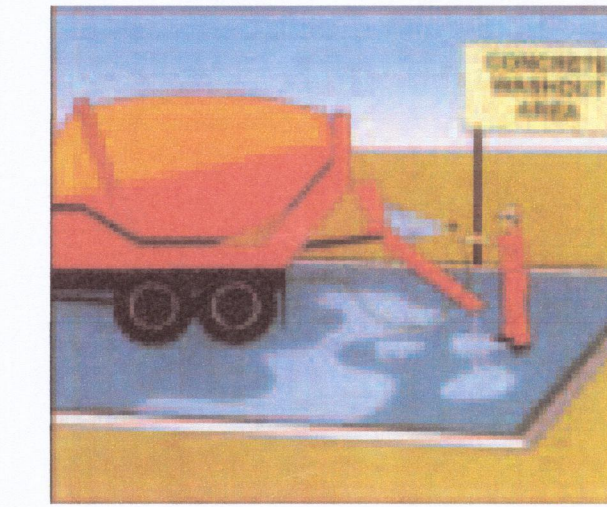


- Avoid paving and seal coating in wet weather or when rain is forecast, to prevent materials that have not cured from contacting stormwater runoff.
- Cover storm drain inlets and manholes when applying seal coat, tack coat, slurry seal, fog seal, etc.
- Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.
- Do not use water to wash down fresh asphalt concrete pavement.

Sawcutting & Asphalt/Concrete Removal

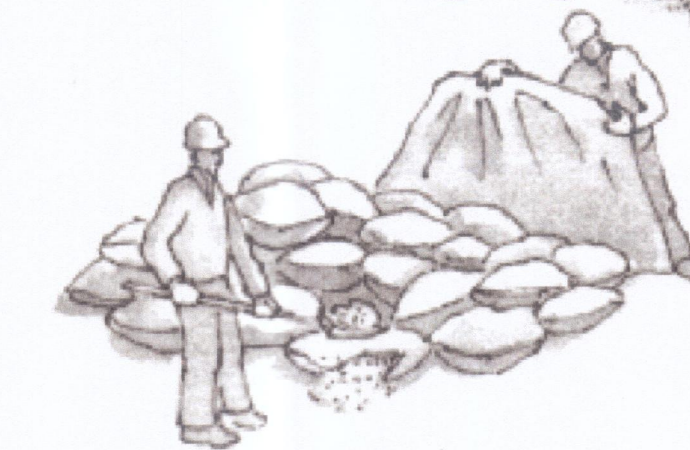
- Protect nearby storm drain inlets when saw cutting. Use filter fabric, catch basin inlet filters, or gravel bags to keep slurry out of the storm drain system.
- Shovel, absorb, or vacuum saw-cut slurry and dispose of all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- If sawcut slurry enters a catch basin, clean it up immediately.

Concrete, Grout & Mortar Application



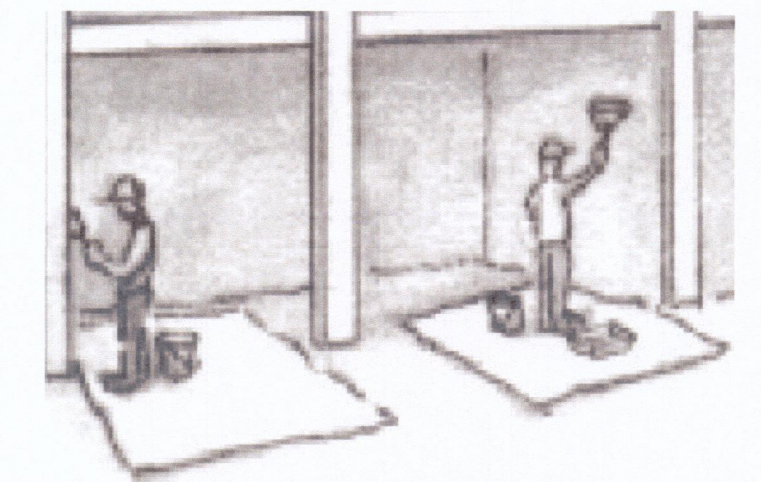
- Store concrete, grout, and mortar away from storm drains or waterways, and on pallets under cover to protect them from rain, runoff, and wind.
- Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will flow into a temporary waste pit, and in a manner that will prevent leaching into the underlying soil or onto surrounding areas. Let concrete harden and dispose of as garbage.
- When washing exposed aggregate, prevent washwater from entering storm drains. Block any inlets and vacuum gutters, hose washwater onto dirt areas, or drain onto a bermed surface to be pumped and disposed of properly.

Landscaping



- Protect stockpiled landscaping materials from wind and rain by storing them under tarps all year-round.
- Stack bagged material on pallets and under cover.
- Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.

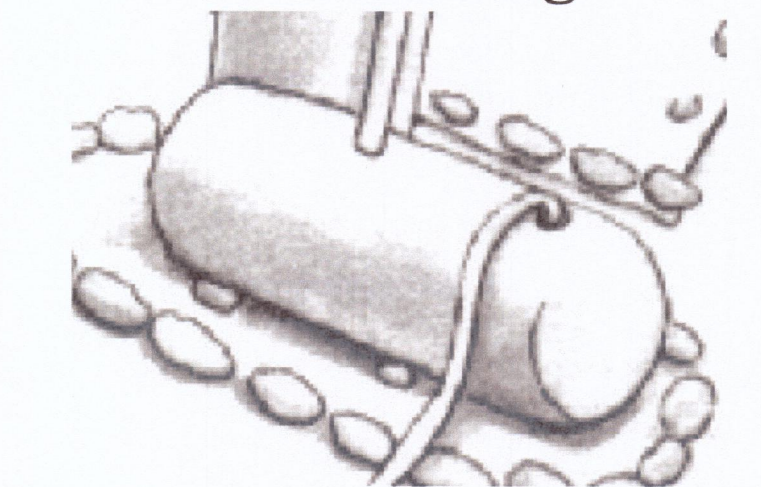
Painting & Paint Removal



Painting Cleanup and Removal

- Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer. Never pour paint down a storm drain.
- For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash.
- Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead based paint removal requires a state-certified contractor.

Dewatering



- Discharges of groundwater or captured runoff from dewatering operations must be properly managed and disposed. When possible send dewatering discharge to landscaped area or sanitary sewer. If discharging to the sanitary sewer call your local wastewater treatment plant.
- Divert run-on water from offsite away from all disturbed areas.
- When dewatering, notify and obtain approval from the local municipality before discharging water to a street gutter or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- In areas of known or suspected contamination, call your local agency to determine whether the ground water must be tested. Pumped groundwater may need to be collected and hauled off-site for treatment and proper disposal.

Storm drain polluters may be liable for fines of up to \$10,000 per day!



Palm Harbor Homes

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Plant Location: **20-Millersburg**

Customer: **Stock**

Drawn By: **TDS**

Date: **5/29/14**

Series: **5000**

Model Number: **5G42684A-5V468T5HD**

Page Number:

Designation:

ELEVATION

Rev. By: --
Revision: --

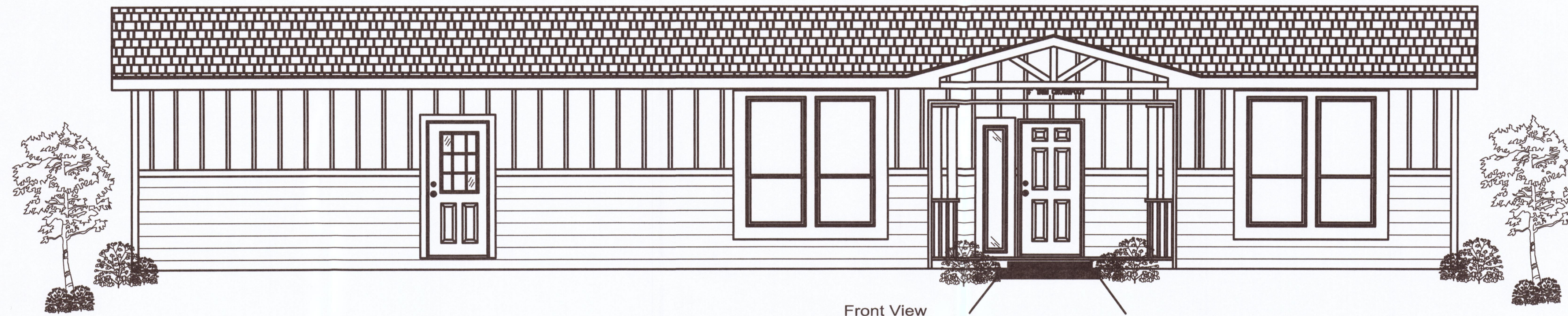
Approvals

P.E.

3rd Party:

State:

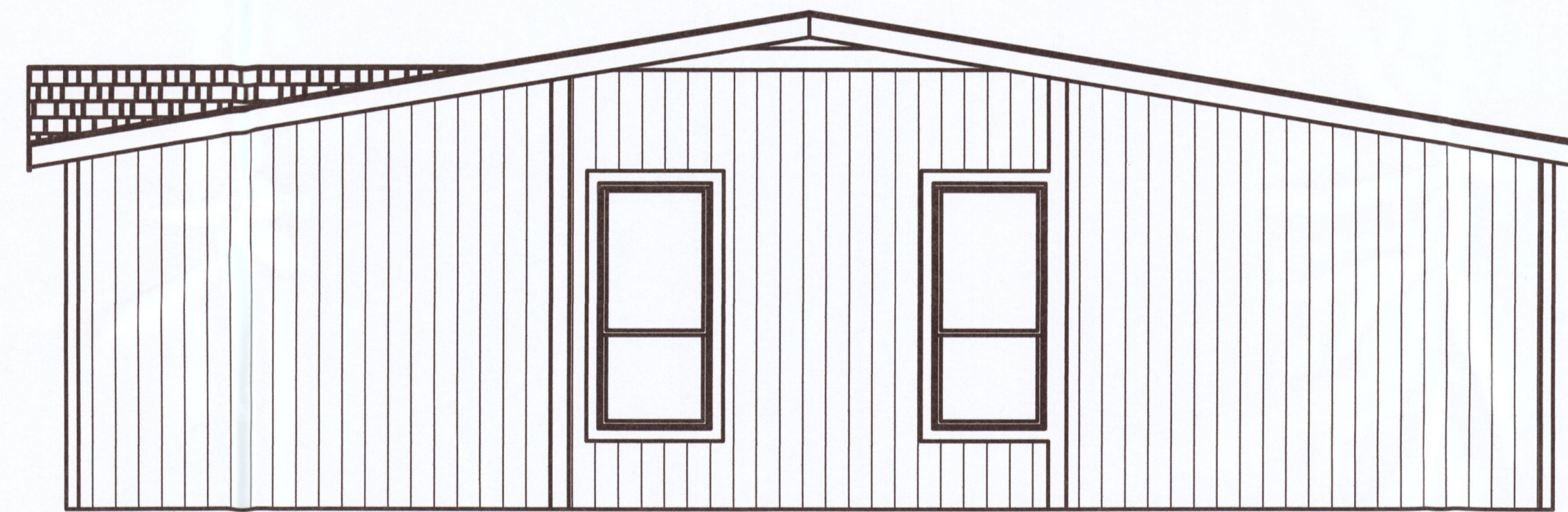
**Ser #:
11150**



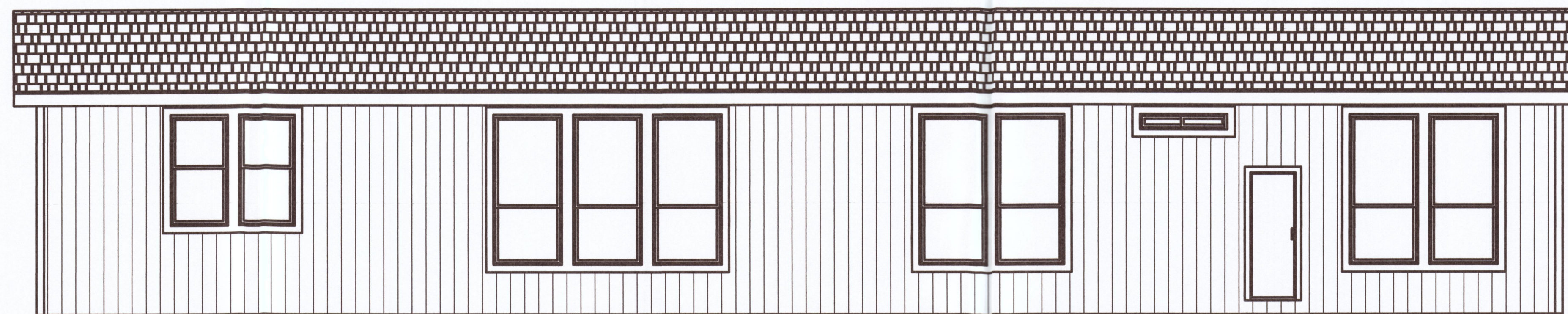
Front View



Left View



Right View



Rear View



Palm Harbor Homes

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Plant Location: 20-Millersburg

Customer: Stock

Drawn By: TDS

Date: 5/29/14

Series: 5000

Model Number: 5G42684A-5V468T5HD

Page Number:

Designation:

Rev. By: --
Revision: --

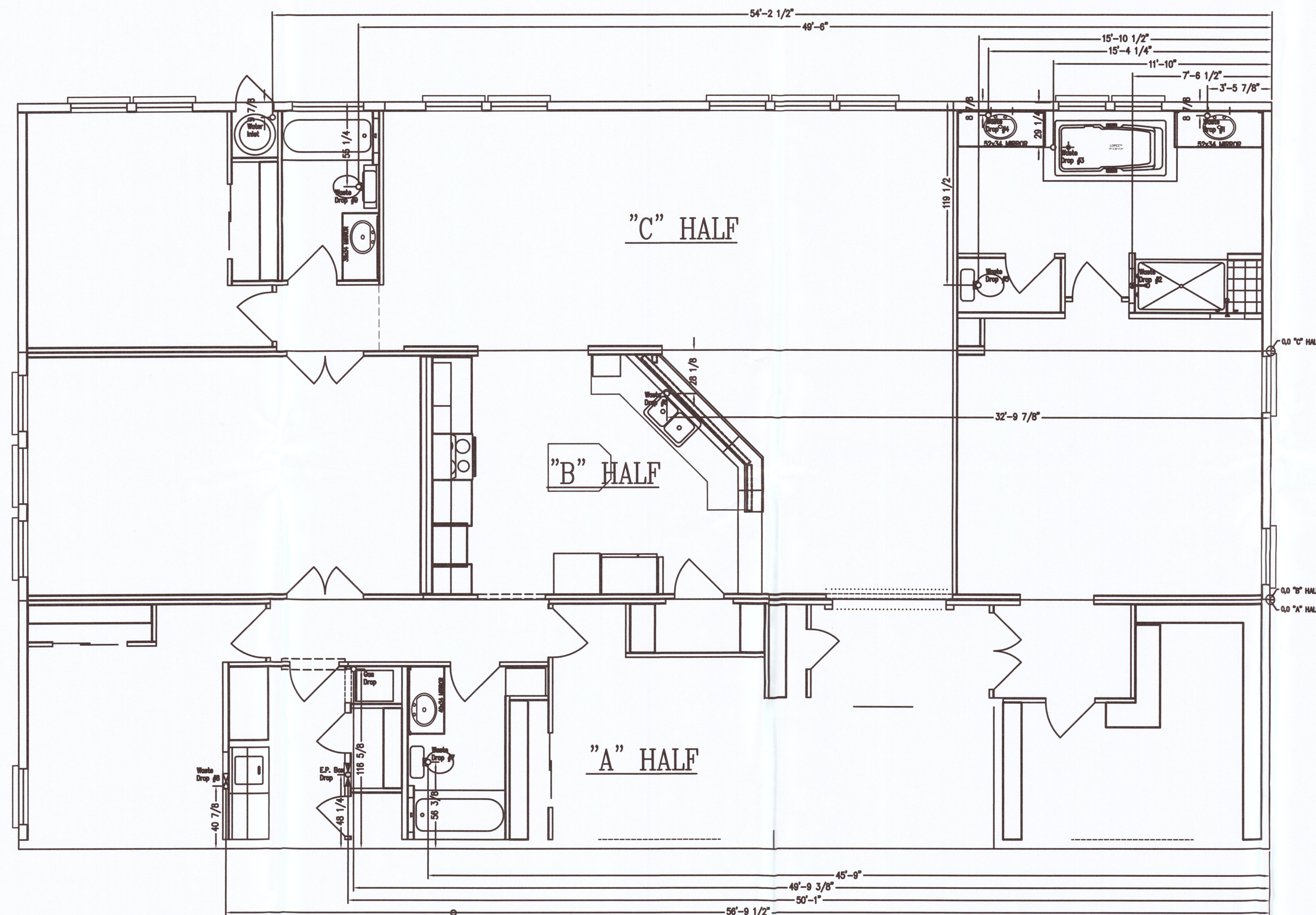
Approvals

P.E.

3rd Party:

State:

Ref: Ser #11150



UTILITY LOCATIONS
SET-UP MANUAL SUPPLEMENT



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Plant Location: 20-Millersburg

Customer: Stock

Drawn By: TDS

Date: 5/29/14

Series: 5000

Model Number: 5G42684A-5V468T5HD

Page Number:

Designation:

FOUNDATION

Rev. By: --
Revision: --

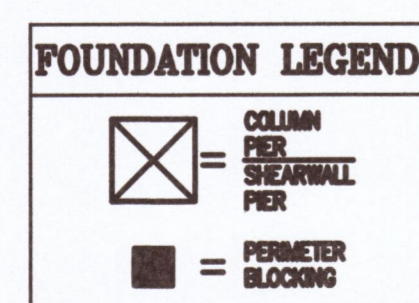
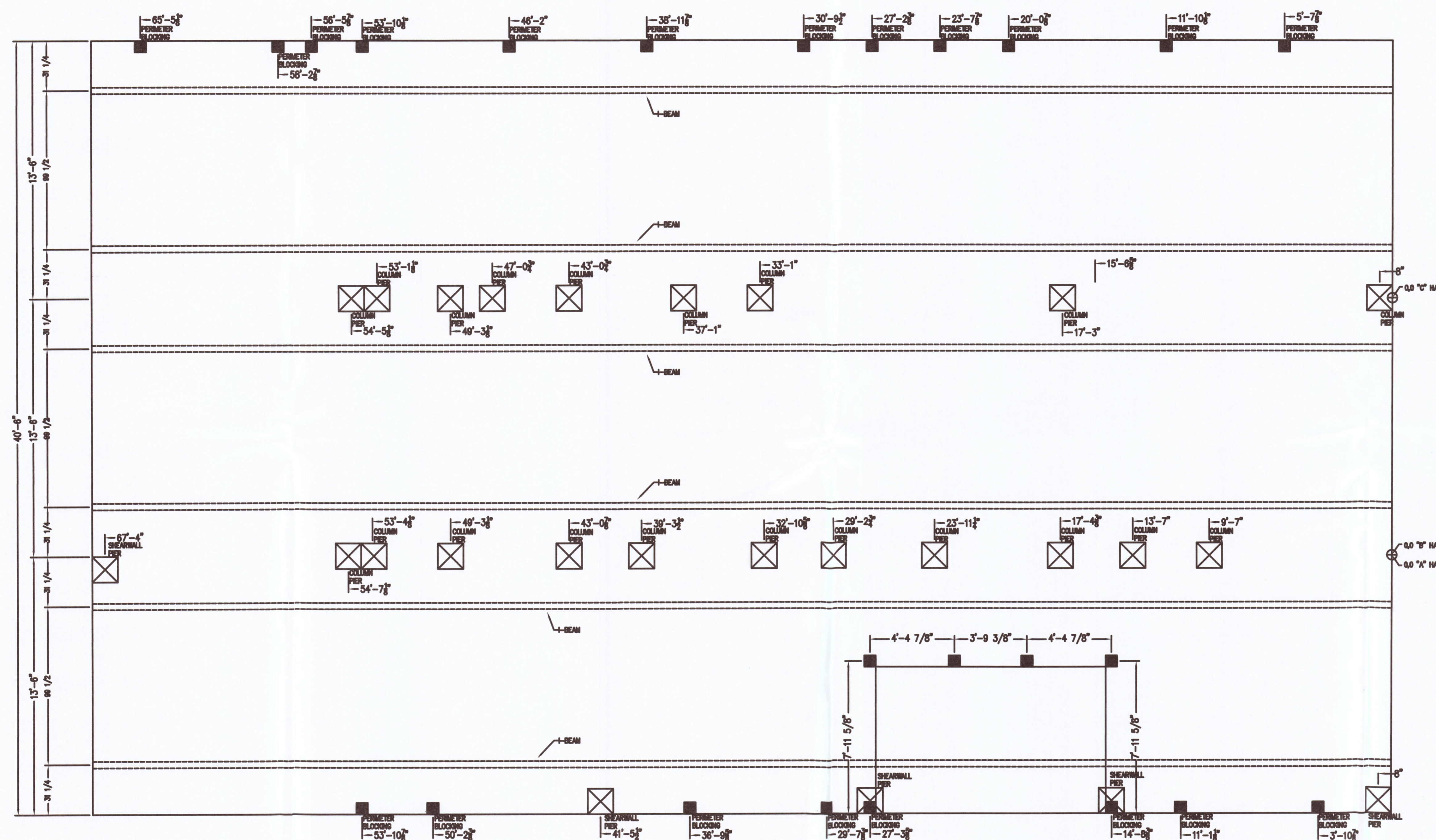
Approvals

P.E.

3rd Party:

State:

Ser #:
11150





COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT C

Filename:SOI-LB-A.DOC

Charles S. Beutler-Soils Consultant
129 Barrett Drive
La Selva, CA 95076-1627
Tel (408) 684-0942

August 28, 1992

To :Lena Bandini
P.O. Box 75
Pescadero, CA 94060
Tel (415) 879-0303

SOILS INFORMATION - Soils Descriptions

Three sites were described in some detail for the purpose of determining the quality of the soils at the proposed site for a home for your use just across the line of trees on south side of present building in which you live. Two other easterly but close to the other three sites were examined but loosely described. Soil samples were collected from these sites on August 27, 1992. Information on these follow:

Location(s) of the site are on a separate prepared map using the farm road coming in from 12720 address on Cabrillo Highway and the drain (gully) with the trees on the east side as base lines. The drain abuts the residence boundary at 12850 on the south side off Cabrillo Highway .

MAPPING UNIT - All sites

1961 San Mateo Survey Report (Series 1954, #13) Map Symbol:EtC2
Elkhorn sandy loam, thick surface, sloping, eroded (slope range is identified as being 5 to 11 percent.) Capability Unit 111e-3.

POSITION- These soils occupy coastal terraces. The soils were formed in the unconsolidated mixed alluvium of the terrace and the relatively thin mantle of alluvium washed down from higher elevations. There are some indications that the subsoils or underlying soil of these profiles may be truncated remnants of soils of a much earlier era beneath the surface layer. The profile at site 3 in the 13 to 19 inch depth range may be part of the older soil era. It would take sophisticated techniques to test this hypothesis, which this is for now.

RAINFALL- Average annual rainfall is between 20 and 25 inches.

NOTE(S): When loams are described as heavy loams, it has clay content of more than 18 percent, heavy clay loams, 35 percent or more, heavy sandy clay loams, 27 or more. Unless stated otherwise, B horizons are assumed to be either blocky or subangular blocky.

Site 1-described 8/28/92

Location: 150' southerly from the drain and 36' westerly from the upper edge of the farm road near the top of 2 rows of artichokes.

Classification: Without being sure of base saturation of the argillic horizon and the amount of clay increase in 1 or 3 inches and a test for mineralogy there are the following possibilities:

Order/suborder: Mollisols / xerolls

Great Group: Palexerolls or argixerolls

Subgroup: Typic, or Ultic, Palexerolls, or Argixerolls

Family: Textural - fine; mineralogy: montmorillonitic or mixed; temperature regime: thermic border line to mesic; moisture regime: xeric

Remarks:

Observation of cross sections of soil mass did not show the filling of the pores and interstices with binding of filling clay as observed in most montmorillonitic clays. Further, both mixed and montmorillonitic clays when dry are brittle but the montmorillonitic clays tend to have more cohesiveness than the mixed clays. These masses tended to be more brittle and easier to break apart than those with montmorillonitic mineralogy.

In mapping this soil, it would be best included as a non-limiting inclusion to the similar Watsonville series as mapped in this survey. There are reasons to believe that before being highly manipulated for crops, there was an albic horizon between the mollic and argillic horizons.

Tentative Classification:

Fine, mixed, thermic, family of Typic Palexerolls

Within the site itself, the relief was smooth and sloping but within the mapping unit it tended toward complex topography. Slope was 13 percent on a northwesterly aspect. (Because of the topography within the mapping is somewhat complex, few small areas steeper or flatter will have been included within the delineation of the map unit.) The soil was moist when observed and collected in the field. There was no evidence of a water table within 60 inches, but soils of this nature tend to have perched water tables for short periods during periods of intense storms.

- Ap1 0 to 15 inches, very dark gray (10YR 4/2) loam, black (10YR 2/1), moist; weak subangular blocky structure; hard, friable, slightly sticky and slightly plastic; few fine roots; few tubular and common fine interstitial pores; neutral (pH 7.3); abrupt wavy boundary.
- Ap2/B1 15 to 18 inches; a cultivated mixture of soils from the horizons above and below it.
- Bt1 18 to 30 inches; mixed brown and yellowish brown (10YR4/3,5/6,6/6) heavy clay loam, very dark grayish

- brown and yellowish brown (10YR3/2,5/6) moist; few variable shapes and sizes of dark grayish brown (10YR4/2) soil material within parameter measurements of 10 to 20 millimeters; very hard, firm, sticky and plastic; common fine interstitial pores; common thin clay films coating sand grains and few patches of clay deposits filling interstices; medium acid (pH 6.0); gradual irregular boundary.
- Bt2 30 to 38 inches; brownish yellow (10YR6/6) heavy clay loam, yellowish brown (10YR5/6) moist; few light grey (10YR7/2) mottles, grayish brown (10YR5/2) moist; very hard, firm, sticky and plastic; common fine interstitial pores; common thin clay films coating sand grains and few patches of clay deposits filling interstices; few Fe-Mn coatings in the mottled color areas; medium acid (pH 5.7); clear wavy boundary.
- Bt3 38 to 45 inches; brownish yellow (10YR 6/6) heavy clay loam; yellowish brown (10YR5/4,5/6) moist; few pale brown (10YR6/3) mottles, brown (10YR5/3) moist; very hard, firm, sticky and plastic; common fine tubular and many fine interstitial pores; few thin clay films coating sand grains; about 5 to 10 percent fine gravel; few Fe-Mn coatings on assumed ped faces; slightly acid (pH 6.5); clear wavy boundary.
- Bt4 45 to 60 inches; brownish yellow (10YR6/6) sandy clay loam, yellowish brown (10YR5/8,5/6,5/4) moist; few light gray (10YR7/2) mottles; massive; hard, friable to firm, slightly sticky and slightly plastic; common fine tubular and many fine interstitial pores; few thin clay films coating sand grains; about 5 to 10 percent fine and medium gravel; few sand size Fe-Mn concretions; strongly acid (pH 5.5).

Site 2-described 8/28/92

Location: 95' southerly from the drain and 22' westerly from the upper edge of the farm road almost at the top of 2 rows of artichokes.

Classification: Fine loamy, mixed, thermic family of Pachic Argixerolls. Elkhorn series is a member of this family.

This soil is well drained, on a smooth slope with a 12 percent gradient on a WNW aspect. The profile was slightly moist when the samples for it were collected. No evidence was seen that would indicate ground water shallower than 60 inches. Organic content of the surface soil is assumed to be 1 or more percent at a depth of 21 inches

- Ap1 0 to 13 inches; very dark grayish brown (10YR3/2) loam, black (10YR2/1) moist; weak subangular blocky structure; hard, friable, slightly sticky and slightly plastic; few fine roots; few fine tubular and common interstitial pores; neutral (pH 7.0); clear wavy boundary.

- Ap2 13 to 19 inches; grayish brown (10YR5/2) loam, black (10YR2/1) moist; weak subangular blocky structure; hard, friable, slightly sticky and slightly plastic; few fine roots; few fine tubular and common interstitial pores; neutral (pH 7.0); gradual wavy boundary.
- Ap3 19 to 24 inches; grayish brown (10YR5/2) loam, dark brown (10YR3/3) moist; weak subangular blocky structure; hard, friable, slightly sticky and slightly plastic; few fine tubular and interstitial pores; neutral (pH 7.0); abrupt wavy boundary.
- Bt1 24 to 28 inches; variegated 80 percent gray and light gray (10YR5/2,6/2,7/2) 20 percent brownish yellow (10YR6/6) heavy loam, dark brown and dark yellowish brown (10YR4/3,4/6) moist; hard, firm, slightly sticky and slightly plastic; few to common fine tubular and interstitial pores; few thin clay films coating sand grains; few fe-mn coatings and thin small area strata in the 2 chroma soil; neutral (pH 7.0); clear wavy boundary.
- Bt2 28 to 32 inches; 75 percent light gray (10YR6/2), 25 percent yellowish brown (10YR5/6) clay loam, near loam, dark grayish brown and yellowish brown (10YR3/2,4/4) moist; hard, firm, sticky and plastic; common fine tubular and interstitial pores; common thin clay films coating sand grains, and lining pores; few small scattered fe-mn coatings in cracks; neutral (pH 7.0); gradual irregular boundary.
- Bt2 32 to 51 inches; variegated light gray, grayish brown and brown (10YR7/2,5/2,5/3) clay loam, yellowish brown, brown and dark brown (10YR5/8,4/3,3/3) moist; hard, firm, sticky and plastic; common fine tubular and interstitial pores; common thin clay films coating sand grains, and lining pores; few fe-mn coatings as thin small area spots in the 2 chroma soil; slightly acid (pH 6.5); gradual irregular boundary.
- Bt3 51 to 60 inches; variegated grayish brown, light gray, and yellowish brown (10YR5/2,7/2,5/6) clay loam, variegated very dark grayish brown, yellowish brown and brown (10YR3/2,5/8,5/3) moist; hard, firm, sticky and plastic; common fine tubular and interstitial pores; common thin clay films coating sand grains, and lining pores; slightly acid (pH 6.5).

Site 3-described 8/28/92

Location: 56' southerly from the drain and 95' westerly from the upper edge of the farm road and in a temporarily fallow area.

Classification: Tentatively a fine, mixed, thermic family of Aquic Haploxeralfs. It will act like a fine family of Typic Palexerolls. It appears that the strongly acid surface 13 inches of soils is an overburden layer and probably a fill caused by shaping the soil on this particular spot. It also could be a

deposit of alluvium from a higher land surface. The boundary between the A1p and 2A1p is abrupt with a significant amount of clay increase which will slow water infiltration more than if the boundary was not abrupt. The subsoil appears to have been formed under wet conditions due to low chroma (2) and high value colors. However, these soils are now well drained on a slope of 6 percent on a WNW aspect. It is fairly close to the bottom of the swale which is at the drainageway.

This profile was moist when examined and collected on August 27, 1992.

- A1p 0 to 13 inches; very dark gray (10YR3/1) loam, black (10YR2/1) moist; weak subangular blocky structure; hard, friable, slightly sticky and slightly plastic; few fine roots; common to many fine interstitial and common tubular pores; strongly acid (pH 5.5); abrupt wavy boundary.
- 2a1p 13 to 19 inches; variegated very dark gray, very dark grayish brown, dark yellowish brown (10YR3/1,3/2,4/4) clay loam, dark grayish brown (10YR4/3) mixed, variegated very dark brown, very dark grayish brown and dark brown (10YR2/2,3/2,3/3) moist, very dark grayish brown (10YR3/2) mixed; weak subangular blocky structure; hard, firm, sticky and plastic; few fine roots; common fine tubular and interstitial pores; felt sandy when crushing and wetting for texture feel but with continued squeezing and adding water, became sticky and plastic without the sandy texture feel (initially felt like sandy loam); neutral (pH 7.0); abrupt wavy boundary.
- 2B1t 19 to 25 inches; variegated yellowish brown and very dark brown (10YR5/8,2/2) heavy clay loam; variegated yellowish brown, dark yellowish brown, dark brown (10YR5/8,4/4,2/2) moist; very hard, firm, sticky and plastic; common fine interstitial and few fine pores; common thin clay coatings on sand grains; common fine iron concretions; neutral (pH 7.0); gradual irregular boundary
- 2B2t 25 to 44 inches; variegated grayish brown, light gray, and yellowish brown (10YR5/2,7/2,5/8) clay, dark yellowish brown (70 percent) and grayish brown (25 percent) (10YR4/4,5/2) moist; very hard, firm, sticky and plastic; common fine interstitial and few fine pores; common thin clay coatings on sand grains; small amount of very dark grayish brown (10YR3/2) soil fragments; neutral (pH 7.0); clear wavy boundary.
- 2C1 44 to 58 inches; yellowish brown and grayish brown (10YR5/6,5/2) sandy loam; dark yellowish brown and brown (10YR4/4,5/3) moist; massive; hard, firm, slightly sticky and slightly plastic; neutral (pH 7.0); abrupt wavy boundary.

202

58 to 64 inches; light gray and yellowish brown (10YR7/2,5/8) clay loam near loam, strong brown and grayish brown (7.5YR5/8,10YR5/2) moist; massive; hard, firm, sticky and plastic; neutral (pH 7.0)

Site 4-described 8/27/92

Location: 56' southerly from the drain and 152' westerly from the upper edge of the farm road and in a temporarily fallow area.

This site is similar to #3 with the exception of having an albic horizon between the surface and subsoil. The subsoil and other underlying horizons are heavy clay loam over sandy clay loam and sandy loam. This site fits the concept of Watsonville series.

Site 5-described 8/27/92

Location: 150' southerly from the drain and 146' westerly from the upper edge of the farm road and in between the same 2 rows of artichokes that site #1 is located.

This soil meets the criteria for the Elkhorn series. It is similar to the soil at site #2 except the subsoil is a heavy loam with loam and sandy loam parent soil horizons.

Septic effluent field suggestions.

From the standpoint of desirability of site(s) for installing septic tank drainage fields, the soils along the contour between sites 2 and 5 should have the best leaching capabilities. By slightly terracing where the installation will go, this will make the maintenance easier. This designated area should give the best results for water absorption. Soils down along and near top of mini-ridge and those in the swale will tend to be more resistant to absorption of water into the ground.

OTHER

Sites 1, 2, and 5 are in the slope range between 9 and 15 percent. Sites 3 and 4 are on lesser slopes, but their position is such that in periods of runoff they catch a lot of water from higher positions and hence will be subject to water erosion as much or more than some of the soils on the steeper areas above them.

The soils on the site you have chosen for your home will not qualify for prime agriculture land mainly because of slope being too steep for easy management.

On the homesite itself, by installing cutoff drains from above lands, and direct runoff water into protected outlets and then into the present drain (former gully) you can minimize erosion from that source. In addition, you can further limit erosion potential by controlling runoff from the house top by controlling roof drains and put the runoff in protected outlets.

PL 2018-00168

Charles S. Beutler-Soils Consultant
129 Barrett Drive
La Selva, CA 95076-1627
Tel (408) 684-0942

August 30, 1992

RECEIVED

MAY 17 2018

To :Lena Bandini
P.O. Box 75
Pescadero, CA 94060
Tel (415) 879-0303

Dear Mrs. Bandini,

**San Mateo County
Planning and Building Department**

Enclosed are descriptions and information on 5 soil sites in and adjacent to your proposed building area, assessment of a letter to the planning department to John Wade by Ted Herzog, copies of the soils map from south and western parts of the San Mateo Soil Survey, detailed map of the soil sites locations, copies of profile descriptions of the Elkhorn and Watsonville series mapped in that survey and copies of Soil Interpretations Records (SIR's) prepared by the USDA Soil Conservation Service for the Watsonville and Elkhorn Series.

You will note that the suitability rating of Elkhorn soils for septic tank absorption fields is rated severe. Until tested, I would partially disagree with it. If clay content of the subsoil is more than 30 percent, it may be right. From what I've observed of Elkhorn series, the density and structure of the subsoil varies widely from one site to another. If the structure is weak and the subsoil is dense (translated that means in place in the soil, it probably weighs more than 110 to 115 pounds per cubic foot as compared to water weighing in at about 62.5 pounds for the same volume.) the permeability will be restricted. Absorption rates are measured when the soil is wet, and each site chosen will need to have percolation tests run. Also, the rating appears to be made on the permeability of the layer most resistant to water absorption. Examination of both the Watsonville and Elkhorn series SIR's show that the bottom layer has greatly improved permeability meaning that if septic line is designed to drop water in that layer, the success of the field will be enhanced if it continues deep enough.

In summarization - 1. Your site for the home is not on prime farm land. -2. The cutoff of view of ridge line at this point is questionable. -3. Other lands subject owners to whims of politicians and their land planning groups to control land use. -4. Unique lands to me are nebulous in meaning. It can be convincingly argued that all lands are unique. I doubt very much that any definition of unique lands can be made without biased input.

Sincerely,

Charles S. Beutler

UNITED STATES
DEPARTMENT OF
AGRICULTURE

SOIL
CONSERVATION
SERVICE

3233 VALENCIA AVENUE, SUITE B-6
APTOS CA 95003
(408) 688-1562

December 2, 1992

Valerie J. Barone, Project Planner
County of San Mateo Planning Division
Mail Drop 5500
590 Hamilton Street, 2nd Floor
Redwood City CA 94063

SUBJ: SOIL CLASSIFICATION -- BANDINI PROPERTY

Dear Valerie:

In response to your recent telephone call and your letter of November 30, 1992, I have the following information to report. Slopes in excess of nine percent on irrigated land with erodible soils can not be considered Class III soils according to Soil Conservation Service criteria of placing soils into Land Capability Classes (see Table 1). However, it is possible to have Class III soils on slopes 9-15 percent if the land is used to produce non-irrigated crops and if the soils are stable.

This condition does not, however, seem to be the case on the Bandini property per Charles Beutler's soils investigation and mapped soil type from the San Mateo Area Soil Survey. The land in question is erodible with slopes in excess of nine percent. Furthermore, according to the County's regulations related to prime agricultural land, Class III lands can be considered prime if capable of growing artichokes or Brussel sprouts. This test also does not hold up because both of these crops require the land to be irrigated, hence removing land with slopes greater than nine percent from a Class III designation.

According to the Beutler report the soils met or closely resemble the Elkhorn series as mapped or the Watsonville series. The primary difference between the Elkhorn map symbols: EhC2, EhB, EhB2, EhD2, EhE3, EtB, and EtC2 is slope. The third letter in the symbol designates the slope class. For example: B = 2-5%; C = 5-9%; D = 9-16%; and E = 16-31%. Therefore, if you knew a particular piece of land was in the Elkhorn series and wanted to know what the correct map symbol would be then you would simply determine the slope percentage. In addition, the number that follows some soil map symbols such as EtC2 and EhE3 is used to designate units within the capability class and subclass. For example, numeral "2" indicates a problem or limitation of wetness because of a high watertable or seepage and numeral "3" indicates a problem or limitation of depth of soil; roots penetrate only to shallow or moderately shallow depths (refer to pages 13-15 in the San Mateo Area Soil Survey for a more complete explanation of capability groups of soils).

Based on the above information and criteria it seems apparent that the sites where soil samples were identified by Beutler as being in or closely related to the Elkhorn series that these soils are like EhD2 where slopes are greater than 9% and like EhC2 or EtC2 if slopes are between 5-9%. For

the sample that more closely resembles the Watsonville series, the land capability class would be at least Class IV or higher for both irrigated and non-irrigated conditions if the slopes are greater than 9%. Both soils have serious limitations for agricultural use when they occur on slopes greater than 9%. The best use of these soils when used for agricultural purposes on these steeper slopes is permanent pasture, rangeland, and possibly some speciality tree crops such as Christmas trees provided there is adequate groundcover between the crop to protect the soil.

Orchards or vineyards are not a likely possibility on the property in question because of the parcel's proximity to the ocean (salt spray), unfavorable micro-climate, and marginal soil conditions for growing these perennial crops. Based on the evidence presented in the soil survey, by Charles Beutler, and by the criteria that SCS uses to define prime agricultural land it is not likely that this parcel of land is prime. The property was also not mapped as prime, by the California Department of Conservation under their Important Farmland Mapping program. It should also be noted here that I did not personally make a field inspection of the property to verify any of the determinations I make in this letter. I have attached some supporting information I hope will help you understand the capacity of soil mapping and determining agricultural suitability of soils.

I hope also that this letter helps clarify the points of concern you have relative to the capability class and the soils on the Bandini property.

Lastly, I think the County should reconsider the criteria they use to determine prime agricultural land. I would be happy to assist with this effort if the County is so inclined.

If you have any questions, please feel free to contact me.

Sincerely,

USDA SOIL CONSERVATION SERVICE



Richard Casale
District Conservationist

cc: William Gradle, Area Conservationist, SCS, Salinas
San Mateo County Resource Conservation District, Half Moon Bay
Charles Beutler, Aptos

Charles S. Beutler
129 Barrett Drive
La Selva Beach, CA
95076-1627
Ph. [408] 684-0942



—Valerie J. Barone - Project Planner—
Mail Drop 5500-590 Hamilton Street -2nd Floor
Redwood City, CA 94063
Ph. [415] 363-4161

SUBJECT: SOILS CLASSIFICATION OF BARDINI PROPERTY (APN 086-142-010)

Dear Ms. Barone,

With information provided to Rich Casale at the Soil Conservation Office in Aptos by you, I can now better respond to questions you have asked me over the telephone. I was not furnished the San Mateo County PAD Regulations Definition of "Prime" Agricultural lands. I would like to go through definitions with you now that I have a written copy.

Page 243 A. Prime Agricultural land

1. I have no problem with USDA Soil Conservation definition using Class I and II lands. I do have a problem with a suitable vegetative cover - especially artichokes and brussel sprouts being in the criteria for class III lands to fit in prime land concept. First of all they are not the best crops under cultivation that inhibits erosion on sloping lands. Not only that, they are crops (especially artichokes) that can be adapted to grow on a wide variety of soils. When these crops are raised on sloping lands, to prevent excessive erosion under irrigation, they need to be sprinkled and ideally at a rate that does not exceed the permeability of the soil. This is not only labor intensive, but also costly in the use of power and equipment to do the irrigating. Also at the slow rate it has to be applied, the efficiency goes down due to relatively higher evaporation of the water. Because of increasing taxes, high power, equipment, labor, advertising and fee costs, it has become increasingly difficult to make a profit on these lands and small acreage farmers aren't making enough profits to continue the operation.
2. I have no problem with 80-100 ratings for the Storie Index. However, the highest rating given for Elkhorn soils is 73 and for Watsonville soils is 65. Pg 27,29 Soil Survey San Mateo County May 1961.
3. There is no land in San Mateo county that can carry one animal unit per acre unless it is irrigated. I doubt first of all that water can be made available unless other irrigated crop land is converted. If water cannot be made available, then this qualification is moot. I doubt that

anyone with water will want to make this conversion except possibly some who need pasture for pleasure horses.

4. If you are talking about a \$200 return per acre, then no one can afford to use this land. These days costs per acre of raising some crops like strawberries can cost up to \$4,000 or more per acre when you include taxes, labor, equipment, marketing and other factors. On sloping lands to prevent excessive erosion on fruit and nut trees cropland there is the expense of providing winter cover crops. To properly irrigate in the dry season, relatively sophisticated irrigation systems are needed. I still am not in favor of crop suitability being a criteria for prime farm lands, especially for sloping lands.
5. The same criteria for this item can be used from item 4 above.

I have determined that at sites located on the sheet labeled "Soil Investigation Sites" relative to the farm road and the drain down hill near the residence 12850 Cabrillo Hwy are as follows and with documentation:

Sites 2 and 5 would be mapped as Elkhorn series.

Sites 1, 3, and 4 would be included in the Watsonville series. The differences between sites 1 and 3 and Watsonville are minor and could be separated mainly on colors of the subsoils and the lack of an albic horizon. Site 4 fits the concept of the Watsonville soils which has an albic horizon. For use and management, those prescribed for the Watsonville soils, thin surface fit by latest criteria used by the SCS.

NOTES:

Slopes at sites 1 is 13 percent; at site 2 is 12 percent, at site 5 is more than 9 percent; at sites 3 and 4 are about 6 percent plus or minus 1 percent.

The fine textured subsoil soil layer of soils at sites 1, 3 and 4 is at a depth of less than 20 inches overlain by an abrupt boundary of the surface layer(s). Abrupt boundaries cause slow permeability rates.

There is a wide range of soil depths in the descriptions of the Watsonville series and how interpreted into the mapping units. The model site description of the Watsonville Series shows the claypan at a depth of 15 inches. In the mapping unit descriptions except for soils mapped WmC3 - Watsonville loam, sloping, severely eroded, (2 to 11 percent slopes) and WmB - Watsonville loam, gently sloping, (2 to 5 percent slopes), the profiles are described as being shallow to moderately deep. On page 93 of the Soil Survey Report (5/61) very shallow is less than 10 inches, shallow - 10 to 20 inches, moderately deep - 20 to 36 inches, deep 36 to 60 inches and very deep - more

than 60 inches.

The WmB mapping unit though not specific implies that claypan is probably moderately deep (.."depth to claypan is slightly greater"). The WmC3 mapping unit includes truncated subsoils being at the surface but roots penetrate to less than 20 inches (roots penetrate only to a shallow depth). Of course as stated it could mean to a limit of 10 to 11 inches.

Using the area in which the proposed house site and soil sites 1 and 2 are, the slope is in the range of 11 to 21 percent. Soil site 1 would be included in the Watsonville mapping unit WmD2- Watsonville loam, moderately steep, eroded (11 to 21 percent slopes). Capability unit IVe-3. Page 70-71. Soils site 2 would be included in mapping unit EHD2- Elkhorn sandy loam, moderately steep, eroded (11 to 21 percent slopes). Capability unit IV-e3. Page 52. Site 5 is on borderline of Capability unit III-IV-e3 (slope is between 9 and 11 percent) and off the proposed house site. Sites 3 and 4 would be mapped as Watsonville loam, sloping, eroded (5 to 11 percent slopes). Capability unit IIIe-3. Page 70.

I submit that using your criteria and the 1961 Soil Survey San Mateo Area, the land for the house site proposed does not meet the criteria for Prime farm land as it keys out to Class IV. Since Class IV is not mentioned as being considered for prime land (it isn't) further investigation should not be needed as far as soils are concerned.

Now, if you decide to use criteria as used in the 1982 Soil Interpretation Records number CA0446 which is in my report, on the second page under heading of CAPABILITY AND YIELD PER ACRE AND PASTURE (HIGH LEVEL MANAGEMENT) you will find Capability of Watsonville thin surface in slope ranges of 2 to 15 percent to be class 4E.(IVe). Soils in Santa Cruz County soil survey report (1980) show this to be capability unit IVe-3. Storie index 36. I have determined that sites 1, 3 and 4 fit in this category and have documented it. Using the same criteria from Soil Interpretation Records number 0021 also in the report it shows Elkhorn, 9 to 15 percent slope to be class 3E (IIIe). Sites 2 and 5 fit in this category. Soils mapped in this unit in the Santa Cruz County soil survey report (1980) show this unit to be capability unit IVe-1 irrigated and IIIe-1 non-irrigated. Storie index 59.

I have many good reasons - many already mentioned - that soils steeper than 9 percent should not be prime lands. I also do not believe that soils with very slow permeabilities at depths less than 40 inches as in case of the Watsonville soils (especially if less than 20 inches) should be considered as prime lands as management and practices to raise crops are considerably more complicated and costly for a smaller crop production than on deeper soils such as the Elkhorn series.

Sincerely,

Charles S. Beutler
Soils Consultant



Planning Division • 415/363-4161 • FAX 363-4849

Building Inspection Section • 415/363-4601 • FAX 363-4849

County of San Mateo

Mail Drop 5500 • 590 Hamilton Street, 2nd Floor • Redwood City • California 94063

Board of Supervisors
Anna G. Eshoo
Mary Griffin
Tom Huening
Tom Nolan
William J. Schumacher

Director of
Environmental Services
Paul M. Koenig

Planning Administrator
Terry L. Burnes

December 15, 1992

Mr. Rich Casale
Soils Conservation Service
3233 Valencia Avenue, Suite B6
Aptos, CA 95003

Dear Rich,

SUBJECT: Soils Classification of the Bandini Property (APN 086-142-010)

Thank you for your responsiveness to my letter dated November 30, 1992. This letter is just a quick follow-up. I have attached a copy of a letter Mr. Beutler submitted in response to my letter to you; I believe he forwarded a copy to you as well. I am hoping you will again be able to review Mr. Beutler's work and respond to his conclusions.

On page 3 of this letter, he lists the following soil classifications for each of his test sites. Given the information provided by Mr. Beutler in both his original report and his follow-up letter, do you agree with his determinations?

<u>Site/s</u>	<u>Classification</u>
1	Watsonville loam, moderately steep, eroded (WmD2)
2	Elkhorn sandy loam, moderately steep eroded (EhD2)
3/4	Watsonville loam, sloping eroded (WmC2)
5	?

Site 5 was not specifically classified on page 3 of Mr. Beutler's letter. On page 2, however, it is identified as of the Elkhorn series with a 9% slope.

I would also like further clarification of the statement in your letter that "Slopes in excess of nine percent on irrigated land with erodible soils can not be considered Class III soils according to Soil Conservation Service criteria of placing soils into Land Capability Classes." How would I know if a soil classification type was considered erodible?

Assuming I knew a soil type to be erodible and assuming the soil I was concerned with was classified in the 1961 Soils Survey for San Mateo County as a Class III capability type or better, must the soils classification be

Mr. Rich Casale
December 15, 1992
Page 2

incorrect if an accurate topographic map demonstrated the soils in question had a slope greater than 9%? (I hope this question makes sense to you.)

On a separate matter, I found the information you provided in your last letter on the meaning of the symbols used in soil classifications extremely useful. I have shared this information with my co-workers.

I have also forwarded yours and Mr. Beutler's comments on the County's current "prime soils" classification system onto the Long Range Planning Section. The definition of "prime soils" is not currently being revised by the County, but if at some future date it is reviewed, the information shall be in their files.

Once again, I appreciate your efforts on this project. If you have any questions, I can be reached at 415/363-1930.

Sincerely,



Valerie J. Barone
Planner II

VJB:cdn - VJBC2934.ACN

Enclosure

cc: Charles Beutler, Soils Consultant
Lena Bandini, Applicant
John Wade, POST

December 17, 1992
Charles S. Beutler
129 Barrett Drive
La Selva Beach, CA
95076-1627
Ph. [408] 684-0942

Valerie J. Barone - Project Planner
Mail Drop 5500
590 Hamilton Street -2nd Floor
Redwood City, CA 94063
Ph. [415] 363-1930

SUBJECT: SOILS CLASSIFICATION OF BANDINI PROPERTY
(APN 086-142-010)

Dear Ms. Barone,

Reference: Your handwritten note (12/14/92) to me
requesting location of soil sites for
Bandini Project 086-142-010.

As requested, I have located the soil sites your
enclosed site plan map for the Reference Bandini
Project. They look a little different than the plot
map I made mainly because of the bit different
orientation of the farm road and the "existing
swale".

These locations were determined by pacing so there
could be as much as 3 to 7 (radius wise) feet error
on the locations, but considering the size of the
planned site, the locations should be OK for your
needs.

Respectfully submitted,

Charles S. Beutler

Soils Consultant

CC: Lena Bandini

From: Valerie Barone

Planner - Current Planning

Re: Bandini Project 086-142-010

Date 12/14/92

Dear Mr. Bentler:

Attached you will find a copy of a site plan submitted by the applicant. Could you please transfer your test site locations (1 through 5) to this map and return it to me.

Thank you very much for your help to date. Call me at 363-1930 if you have questions.

- Valerie

Mail Drop 5500

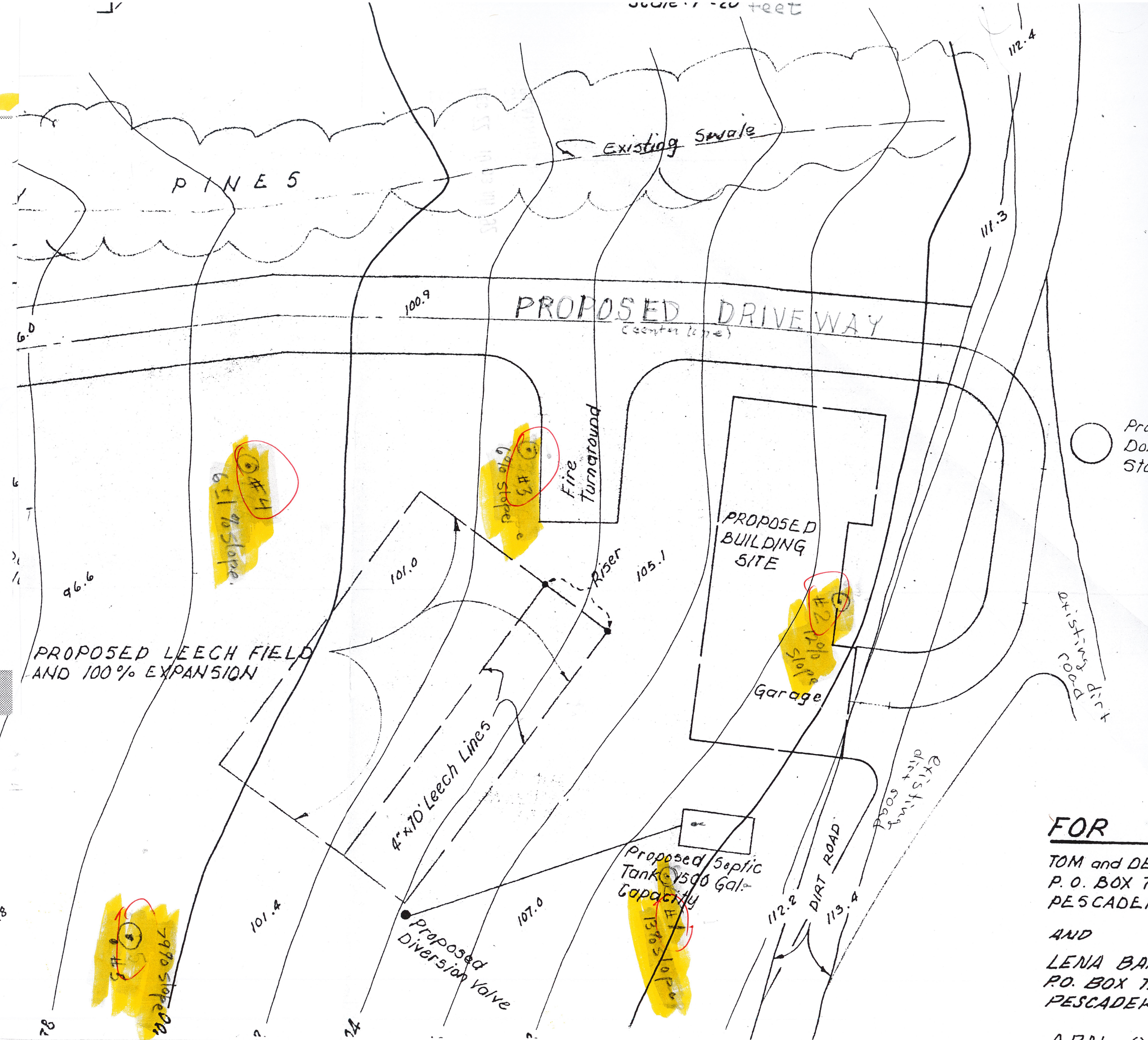
590 Hamilton Street

Redwood City, CA 94063

415-363-1930

SAN MATEO COUNTY PLANNING & BUILDING DIVISION

Returned & marked up by Mr. Bentler



FOR TOM and DE P.O. BOX 7 PESCADERO AND LENA BAN P.O. BOX 7 PESCADERO

UNITED STATES
DEPARTMENT OF
AGRICULTURE

SOIL
CONSERVATION
SERVICE

3233 VALENCIA AVENUE, SUITE B-6
APTOS CA 95003
(408) 688-1562

January 5, 1993

Valerie J. Barone, Project Planner
County of San Mateo Planning Division
Mail Drop 5500
590 Hamilton Street, 2nd Floor
Redwood City CA 94063

SUBJ: SOIL CLASSIFICATION -- BANDINI PROPERTY

Dear Valerie:

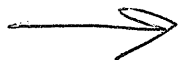
I am sorry it has taken me so long to respond to your December 15, 1992, letter requesting further clarification of soils identified on the Bandini property near Pescadero.

I have reviewed and discussed Mr. Beutler's work and conclusions with Mr. Beutler personally and agree completely with all his conclusions, including his determinations of soils identified on sites 1-5.

In answer to your question on how to determine if a soil type is considered erodible, I will refer you to the 1961 Soil Survey which has already made this determination for you. The word "eroded" follows the soil type for each soil type where the soil has been identified and mapped as being erodible. In the case of the Bandini property soils all three soils identified include the eroded condition, i.e. "Elkhorn Sandy Loam, moderately steep, eroded (EhD2)". When the soils were originally mapped by the SCS Soil Scientists they observed the existing condition of the soil they were mapping. If more than 25% of the original topsoil was removed, or if more than 25% of the subsoil removed, or if gullies were present the soil scientist identified the soil as having an "eroded" or "severely eroded" condition depending on how much of the soil had been removed.

If you found an "eroded" soil that was mapped as Class III or better and site specific information told you that the area mapped in question had slopes in excess of nine percent, then you can assume that the soil was incorrectly mapped or the wrong slope and/or capability class was assigned provided you are addressing a representative sample within the soil mapping unit boundaries.

It is important to keep in mind that: soil samples were not taken within every single soil boundary identified on the soil survey maps; soil map boundaries do not break down soil types on areas less than 10 acres in size meaning that other soils are likely present within each mapping unit; slope ranges may not consider nearly level areas two or three acres in size; and soil boundary lines on the soil maps are about 50 feet wide in the field and really should be considered a zone rather than a line on the land.



In summary, the soil survey is a good planning tool, and should not be used to make landuse decisions without supporting site specific studies or information.

I hope this answers your questions and further clarifies the statements I made in my December 2, 1992, letter to you.

If I can be of further assistance, please do not hesitate to contact me.

Sincerely,

USDA SOIL CONSERVATION SERVICE



Richard Casale
District Conservationist

cc: William Gradle, Area Conservationist, SCS, Salinas
San Mateo County Resource Conservation District, Half Moon Bay
Charles Beutler, Aptos



COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT D



Sigma Prime Geosciences, Inc.

April 29, 2021

Laura Richstone
San Mateo County Planning and Building Department
Via email: lrichstone@smcgov.org

Subject: Review of Soils Classification:
12850 Cabrillo Highway Pescadero, California.
APN: 086-142-010; PLN2018-00168

Dear Ms. Richstone:

Sigma Prime Geosciences, Inc. has reviewed documentation that was submitted to San Mateo County between August 1992 and January 1993 to challenge the classification of prime soils for the subject property. This challenge was originally submitted to allow the current housing that occupies the property and was successful. Soil analyses were performed in August 1992 by Charles Butler (soils consultant) that showed the site soils to be of the Watsonville and Elkhorn soil series. Although soil sampling locations were taken up to three hundred feet away from the current proposed affordable housing location, Sigma Prime has confirmed that soil types throughout the property are similar in texture and composition.

Although the existing site soils can be considered Type III prime soils, it was concluded in a letter in December 1992 from Richard Casale (USDA Soil Conservation Service) that these soils cannot be considered prime soils if the site gradient is greater than 9% due to the erodibility from necessary irrigation.

During a site visit to the property in November 2019 to verify the existing conditions of the area for the proposed affordable housing unit we discovered that some grading has occurred in preparation for the modular home. The topography did not match the base map for the grading and drainage plan we were preparing. We re-surveyed the topography in the area for an accurate base map. We did not know about the 9% delineation at that time. Attached is Sheet C3 showing the cut and fill of the area and shows the estimated original topography in green. The plan shows three different gradient lines that average above a 9% slope.

We do not think it is prudent to move the affordable housing unit to a different location on the property that is currently greater than 9%. The area would have to be graded again in preparation for the modular home and access road in excess of what has already been graded.

If you have any questions, please call me at (650) 728-3590.

Yours,
Sigma Prime Geosciences

Abbie Goldstein P.G.

