Staff Report to the Zoning Administrator

Application Number: 05-0461

Applicant: Dee Murray
Owner: Donald Connoly
APN: 041-232-24

Agenda Date: May 5,2006
Agenda Item #: 1
Time: After 10:00 a.m.

Project Description: Proposal to construct a non-habitable accessory structure of about 6,000 square feet for use as a garage for an antique auto collection with a partial second story for use as a workshop and storage area and to construct retaining walls in excess of three feet in height within the front yard setback from Bowen Avenue. Requires Residential Development Permits for a Non-Habitable Accessory Structure greater than 1,000 square feet and for a fence greater than three feet within the front yard setback, and Preliminary Grading Review.

Location: Property located on the south side of Bowen Avenue, about 460 feet east of Wallace Ave. (House located at 9705 Monroe Ave. Extension).

Supervisoral District: 2nd District (District Supervisor: Ellen Pine)

Permits Required: Residential Development Permit for a non-habitable accessory structure greater than 1,000 square feet

Staff Recommendation:

- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- Approval of Application 05-0461, based on the attached findings and conditions.

Exhibits

A.	Project plans	H.	Soils report review letter, dated 1/19/06.
B.	Findings	I.	Excerpt of Conclusions and Recommendations from the Geotechnical report, prepared by Haro, Kasunich, and Associates, dated 1/06.
C.	Conditions		
D.	Categorical Exemption (CEQA determination)		
E.	Assessor's parcel map		
F.	Zoning & General Plan maps	J.	Comments & Correspondence
G.	Conclusions and recommendations from Arborist's report, dated 9/28/05		

Parcel Information

Parcel Size:	2.27 Acres (98,812 square feet)
Existing Land Use - Parcel:	One single-family dwelling
Existing Land Use - Surrounding:	Single-family dwellings
Project Access:	Bowen Avenue
Planning Area:	Aptos
Land Use Designation:	R-UVL (Urban Very Low Density)
Zone District:	R-1-20 (Single-family residential, 20,000 square foot minimum lot size)
Coastal Zone:	__ Inside __X__ Outside
Appealable to Calif. Coastal Comm.	__ Yes __X__ No

Environmental Information

Geologic Hazards:	Not mapped/no physical evidence on site
Soils:	Elkhorn Pfeiffer Complex (136), Elkhorn Sandy Loam (135), Tierra-Watsonville Complex (175)
Fire Hazard:	Not a mapped constraint
Slopes:	20% to 50%+ slopes
Env. Sen. Habitat:	Potential Dudley's Lousewort habitat
Grading:	About 995 cubic yards of grading proposed
Tree Removal:	29 *oaks* proposed to be removed (9 *oaks* greater than 20" d.b.h.)
Scenic:	Not a mapped resource
Drainage:	Existing and proposed drainage system adequate
Archeology:	Not mapped/no physical evidence on site

Services Information

Urban/Rural Services Line:	__X__ Inside __ Outside
Water Supply:	Soquel Creek Water District
Sewage Disposal:	Septic system
Fire District:	Aptos/La Selva Fire Protection District
Drainage District:	Not in a Drainage District

History

The existing residence on site was constructed in 1953 (Assessor's records), prior to the requirement for building permits.

Project **Setting**

The project site is a triangular double frontage lot, with driveway access to the existing residence maintained off of Monroe Avenue Extension. The site is located within a neighborhood of single-family dwellings on lots of around 15,000 square foot to 1 acre sized lots, giving the neighborhood a semi-rural character. The neighborhood is hilly, with extensive woodlands

consisting primarily of coast live *oaks.* Highway 1, a County designated scenic road, passes about 1,000 feet to the south-west of the project site, but is obscured from view by a ridge.

Project Scope

The proposed structure will consist of about 4,910 square feet of garage on the 1st floor, with a 2nd story workshop/storage space of about 1,070 square feet. The large garage is intended for use as storage for the property owner's extensive antique car collection, and will contain parking spaces for up to 16 **cars.** No habitable features are proposed; the sink will have a drain of 1½" in diameter and the proposed hot water heater will be on demand and only 24" x 18" in size. Due to steep slopes between the proposed garage and the existing house and driveway, a new driveway is proposed from Bowen Avenue. To accommodate the proposed structure and driveway, about 995 cubic yards of grading is proposed and 29 Coast Live *Oaks* are proposed to be removed.

Zoning & General **Plan Consistency**

The subject property is a lot about 2.27 acres in size (about 98,812 square feet), located in the R-1-20 (Single-family residential, 20,000 square foot minimum lot size) zone district, a designation which allows residential uses. The proposed structure will meet comply with all required site standards of the R-1-20 zone district, including setbacks, lot coverage, floor area ratio, and maximum height.

Accessory **Use**
County code requires accessory structures to be clearly "appurtenant, subordinate and incidental to the main structure or main use of the land as specified in the purposes of the appropriate zone district," as outlined in Section 13.10.611 of the County Code. Despite it's larger size, the proposed garage and workshop is a subordinate use to the existing single-family dwelling on site, as it will contain no habitable features, will be less than 100 feet from the existing residence, and will not contain a toilet or electrical meter greater than 100A/200V. Furthermore, the property owner resides on site, as evidenced by the filing of a Homeowner's tax exemption with the County Assessor's office.

Accessory structures in excess of 1,000 square feet are commonly approved on parcels of similar size (1 to 2 acres), usually for small-scale agricultural hobby operations such as wine production or horse keeping. The proposed structure will support the owner's antique car collection hobby, resulting in similar impacts to the small-scale hobby operations approved on similarly sized parcels. The structure will be compatible with the surrounding neighborhood since the style of architecture will be residential in character and it will be partially obscured from view by existing *oak* woodlands.

Parking
The project will exceed the maximum number of parking spaces outlined in Section 13.10.552(d) of the County Code, as only three parking spaces are required for a two bedroom single-family dwelling while at least 18 will be provided (two in the existing garage and 16 in the new garage). The owner seeks an exception to this requirement, as the purpose of the garage is to store his extensive antique car collection rather than to provide additional parking for the existing dwelling.

Retaining wall in front yard

In order to protect some of the coast live *oaks* along the northern property boundary, two retaining walls are proposed within the front yard setback, portions of which will exceed three feet in height. The retaining walls will comply with Section 13.10.525 of the County Code (Regulations for fences and retaining walls), as they will not impede visibility of vehicles nor pedestrians on Bowen Avenue due to their location away from the street and will be partially obscured from view by the retained *oak* woodland.

Issues

The primary issues associated with the project are grading, the removal of the Coast Live *Oaks,* and compatibility with the semi-rural character of the neighborhood.

Grading

Based **on** the submitted grading plans, the project will require 995 cubic yards of cut and 315 cubic yards of fill. Under County guidelines, projects of more than 1,000 cubic yards of grading do not qualify for a categorical exemption to the California Environmental Quality Act and therefore require the preparation of an Initial Study and a determination by the Environmental Coordinator. The proposed project falls just below this threshold at 995 cubic yards. **If,** during construction, the grading is found to exceed 1,000 cubic yards, the project will be required to proceed to Environmental Review, resulting in delays and with the potential for additional conditions to be imposed (Condition of Approval II.B.2).

Tree Removal

To accommodate the construction of the garage and driveway, the project plans show the removal of 29 Coast Live *Oaks,* 9 greater than 20" diameter breast height (dbh). Some tree removal is unavoidable for the project as the entire site is located within an oak woodland. **An** arborists report was prepared (Exhibit G), and all recommendations for preservation of the retained *oaks* must be followed (Condition of Approval II.E). In order to retain the wooded character of the site, *oaks* along the northern and southern property lines will be retained to provide a visual buffer from surrounding properties and the road. Furthermore, the removed trees must be replaced on a one-to-one basis, and at least **12** of the replacement trees must be Coast Live Oaks with the rest trees native to *Oak* woodlands (Condition of Approval II.C).

Neighborhood Comuatability

The proposed garage is compatible with the semi-rural character of the Bowen Avenue as it will be partially shielded from view from surrounding properties and the road by existing *Oaks,* and will incorporate a residential design with a hipped roof and vertical wood siding. Despite the size, the bulk and mass of the garage and upstairs storage is minimized due to the large first floor, which is partially constructed into the hillside.

One potential conflict resulting from the use of the structure as a garage is noise resulting from mechanical work on site. To minimize impacts to neighboring properties, a condition of approval requires all auto work that produces engine noise to be conducted inside the garage with closed doors between 8pm and 8am (Condition of Approval IV.B).

Conclusion

As proposed and conditioned, the project is consistent with all applicable codes and policies of the Zoning Ordinance and General Plan/LCP. Please see Exhibit "B" ("Findings") for a complete listing of findings and evidence related to the above discussion.

Staff Recommendation

- APPROVAL of Application Number **05-0461,** based on the attached findings and conditions.

- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.

Supplementary reports and information referred to in this report are on file and available for viewing at the Santa Cruz County Planning Department, and are hereby made a part of the administrative record for the proposed project.

The County Code and General Plan, as well as hearing agendas and additional information are available online at: www.co.santa-cruz.ca.us

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Development Permit Findings

1. That the proposed location of the project and the conditions under which it would be operated or maintained will not be detrimental to the health, safety, or welfare of persons residing or working in the neighborhood or the general public, and will not result in inefficient or wasteful use of energy, and will not be materially injurious to properties or improvements in the vicinity.

This finding can be made, as the proposed garage will be required to comply with all applicable building codes, and will be located on a portion of the site that will minimize visual impacts to neighboring properties. The garage and storage area will be non-habitable, and therefore will not result in inefficient use of energy. Noise generated on site will be limited by Condition of Approval IV.B, which requires noise generating activities to occur inside the garage between 8pm and 8am.

2. That the proposed location of the project and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the zone district in which the site is located.

This finding can be made, in that the proposed location of the garage with workshop and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the R-1-20 (Single-family residential, 20,000 square foot minimum lot size) zone district in that the primary use of the property will be one single-family dwelling with a detached garage and workshop that meets all current site standards for the zone district. Despite its larger size (6,100 square foot garage/workshop compared to the 2,000 square foot house), the purpose of the garage is for storage and hobby purposes, and will not be habitable or used for commercial purposes. Large non-habitable accessory structures are common on single-family residential parcels of 1 to 2 acres, usually **for** small scale agriculture, storage, or workshops.

Though the amount of parking provided in the garage exceeds the limit outlined in Section 13.10.552(d) of the County Code, the additional parking is justified as storage for an extensive antique *car* collection.

The proposed retaining walls comply with Section 13.10.525 (Regulations for Fences and Retaining Walls), in that the portions of the retaining walls exceeding three feet in height will not be visible from Bowen Avenue due to the retained *oak* trees (the purpose of the retaining walls). The walls will not impede visibility, and will be in keeping with the semi-rural character of the neighborhood as they will be partially obscured by existing vegetation.

3. That the proposed use is consistent with all elements of the County General Plan and with any specific plan which has been adopted for the area.

This finding *can* be made, in that the proposed residential use is consistent with the use and density requirements specified for the Urban Very Low Density (R-UVL) land use designation in the County General Plan, as the primary use of the site will remain one single-family residence.

The proposed garage and workshop will not adversely impact the light, solar opportunities, air, and/or open space available to other structures or properties, as all current site and development standards for the R-1-20 zone district will be met as specified in Policy 8.1.3 (Residential Site and Development Standards Ordinance), and the site is already heavily forested with *oak* trees, some of which exceed the height of the proposed structure and therefore already cast shade and shadow on adjacent properties.

The proposed structure will comply with General Plan Policy 5.10.11 (Development Visible from Scenic Roads), in that it will be located on the opposite side of a ridge from Highway 1, the nearest County designated scenic road.

The structure will not be improperly proportioned to the parcel size or the character of the neighborhood as specified in General Plan Policy 8.6.1 (Maintaining a Relationship Between Structure and Parcel Sizes), in that the proposed garage with workshop will be located on a lot of more than two acres in size, will be constructed into a hillside to minimize bulk and mass, and will be partially obscured from neighboring properties by retained *oak* trees on the southern and northern property lines.

A specific plan has not been adopted for this portion of Aptos.

4. That the proposed use will not overload utilities and will not generate more than the acceptable level of traffic on the streets in the vicinity.

This finding can be made, in that the proposed structure will be non-habitable, and will therefore not be a burden on utilities. Traffic generated by the antique car storage will be minimal, and easily accommodated by the road system in the vicinity.

5. That the proposed project will complement and harmonize with the existing and proposed land uses in the vicinity and will **be** compatible with the physical design aspects, land use intensities, and dwelling unit densities of the neighborhood.

This finding can be made, **as** the proposed structure will be predominately one story, will be located and designed to conceal its large size **through** construction into the hillside, and will be visually obscured by retained *oak* trees. Furthermore, the design of the garage is more residential in character, utilizing vertical wood siding and a hipped roof system, maintaining architectural compatibility with the surrounding neighborhood on Bowen Avenue. The structure will not be habitable, and will therefore not increase the dwelling unit density **or** land use intensity of the site.

Conditions of Approval

Exhibit A: Project plans, 5 sheets, drawn by Leilani Vevang, dated July 19,2005. Grading, Drainage, and Erosion Control plans, 5 sheets, drawn by Joe Akers, dated June 7, 2005.

I. This permit authorizes the construction of garage and workshop of 6,100 square feet, and 995 cubic yards of grading. Prior to exercising any rights granted by this permit including, without limitation, any construction or site disturbance, the applicant'owner shall:

A. Sign, date, and return to the Planning Department one copy of the approval to indicate acceptance and agreement with the conditions thereof,

B. Obtain a Building Permit fiom the Santa Cruz County Building Official.

C. Obtain a Grading Permit from the Santa Cruz County Building Official.

D. Obtain an Encroachment Permit from the Department of Public Works for all off-site work performed in the County road right-of-way.

II. Prior to issuance of a Building Permit the applicant/owner shall:

A. Submit proof that these conditions have been recorded in the official records of the County of Santa Cruz (Office **of** the County Recorder).

B. Submit final architectural plans for review and approval by the Planning Department. The final plans shall be in substantial compliance with the plans marked Exhibit "A" on file with the Planning Department. Any changes from the approved Exhibit **"A"** for this development permit on the plans submitted for the Building Permit must be clearly called out and labeled by standard architectural methods to indicate such changes. Any changes that are not properly called out and labeled will not be authorized by any Building Permit that is issued for the proposed development. The final plans shall include the following additional information:

1. Identify finish and color of exterior materials and roof covering for Planning Department approval. Any color boards must be in 8.5" x 11" format.

2. Submit an engineered Grading plan. If this plan shows more than 1,000 net cubic yards of grading, **then** the project will require an Amendment and will be subject to Environmental Review under the California Environmental Quality Act.

3. Building plans shall include notes stating the size of the sink drain will not exceed 1 ½ inches in diameter, and that the water heater will not exceed 24" x 18" in size.

4. Submit an engineered drainage plan with the following information:

a. Details showing the release from the detention system takes into account the runoff from the driveway area that is bypassing the system.

b. If the pervious concrete area will be used for detention storage, the **C** value used for this area should correspond with other impervious area values.

c. Runoff from upslope of the project should bypass the detention system, and calculations shall clearly describe the proposed routing.

d. Please account for the 40% void ratio in determining storage available under the parking area.

e. Plans must account for the rising limb of the allowable release rate as called for in the County Design Criteria.

5. Submit an erosion control plan showing the following information:

a. Details showing the gravel placed over the construction entrance/exit to prevent construction vehicles from tracking sediment off of the property. The gravel should be between **3** and **6** inches in diameter.

b. **A** silt fence along the northeast property line.

6. The building plans must include a roof plan and a surveyed contour map of the ground surface, superimposed and extended to allow height measurement of all features. Spot elevations shall be provided at points on the structure that have the greatest difference between ground surface and the highest portion of the structure above. This requirement is in addition to the standard requirement of detailed elevations and cross-sections and the topography of the project site which clearly depict the total height of the proposed structure.

7. Details showing compliance with fire department requirements, including all requirements of the Urban Wildland Intermix Code, if applicable.

8. Building plans shall incorporate the recommendations of the arborist report (Exhibit ***G),*** including:

a. Show the installation of Tree Protection Fences around the driplines of the retained trees.

b. A landscape plan showing the removal of English Ivy from the site.

c. Notes requiring pruning of branches prone to construction damage.

C. Submit a landscape plan showing the replacement of removed trees at a 1 to 1 ratio. The replacement trees shall include at least two 24" box and ten 15 gallon *oak* trees, with the rest *oaks* or other trees compatible to the coast live *oak* habitat, at least 1 gallon in size. If these requirements cannot be met (such as due to lack of availability or insufficient room on site), then the reason must be demonstrated to the satisfaction of Environmental Planning staff. The replacement trees shall not be planted within the drip lines of the retained *oaks*.

D. Submit a plan review letter from the project Geotechnical Engineer, stating the building plans are in conformance with the recommendations of the report.

E. Building permit plans must comply with the recommendations of the arborist report (Exhibit G).

F. Submit four copies of the approved Discretionary Permit with the Conditions of Approval attached. The Conditions of Approval shall be recorded prior to submittal, if applicable.

G. Meet all requirements of and pay any required drainage fees to the County Department of Public Works, Drainage. Drainage fees will be assessed on the net increase in impervious area.

H. Obtain an Environmental Health Clearance for this project from the County Department of Environmental Health Services.

I. Meet all requirements and pay any applicable plan check fee of the Aptos/La Selva Fire Protection District.

J. Complete and record a Declaration of Restriction to construct and maintain a Non-Habitable Accessory Structure. **You may not alter the wording of this declaration.** Follow the instructions to record and return the form to the Planning Department.

III. All construction shall be performed according to the approved plans for the Building Permit. Prior to final building inspection, the applicant/owner must meet the following conditions:

A. Prior to construction, all erosion control and tree protection measures shall be installed.

B. All site improvements shown on the final approved Building Permit plans shall be installed.

C. All inspections required by the building permit shall be completed to the satisfaction of the County Building Official.

D. The project must comply with all recommendations of the approved soils reports.

E. Pursuant to Sections 16.40.040 and 16.42.100 of the County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this development, any artifact or other evidence of an historic archaeological resource or a Native American cultural site is discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the Sheriff-Coroner if the discovery contains human remains, or the Planning Director if the discovery contains no human remains. The procedures established in Sections 16.40.040 and 16.42.100, shall be observed.

F. All replacement trees shall be planted prior to final building permit inspection.

G. Prior to final inspection, the arborist must re-inspect the retained trees for construction damage and shall confirm the removal of the English Ivy, and shall submit a letter to the Planning Department with the findings of this inspection and any remediation measures, including additional replacement trees.

IV. Operational Conditions

A. In the event that future County inspections of the subject property disclose noncompliance with any Conditions of this approval or any violation of the County Code, the owner shall pay to the County the full cost of such County inspections, including any follow-up inspections and/or necessary enforcement actions, up to and including permit revocation.

B. To limit potential noise impacts to neighbors, all noise generating automobile maintenance activities shall occur inside the garage with closed doors between 8pm and 8am.

C. The garage shall not be converted to a habitable structure without an Amendment to this permit.

V. **As** a condition of this development approval, the holder of this development approval ("Development Approval Holder"), is required to defend, indemnify, and hold harmless the COUNTY, its officers, employees, and agents, from and against any claim (including attorneys' fees), against the COUNTY, it officers, employees, and agents to attack, set aside, void, or annul this development approval of the COUNTY or any subsequent amendment of this development approval which is requested by the Development Approval Holder.

A. COUNTY shall promptly notify the Development Approval Holder of any claim, action, or proceeding against which the COUNTY seeks to be defended, indemnified, or held harmless. COUNTY shall cooperate fully in such defense. If COUNTY fails to notify the Development Approval Holder within sixty ***(60)*** days of any such claim, action, or proceeding, or fails to cooperate fully in the defense thereof, the Development Approval Holder shall not thereafter be responsible to defend, indemnify, or hold harmless the COUNTY if such failure to notify or cooperate was significantly prejudicial to the Development Approval Holder.

B. Nothing contained herein shall prohibit the COUNTY from participating in the defense of any claim, action, or proceeding if both of the following occur:

1. COUNTY bears its own attorney's fees and costs; and

2. COUNTY defends the action in good faith.

C. Settlement. The Development Approval Holder shall not be required to pay or perform any settlement unless such Development Approval Holder has approved the settlement. When representing the County, the Development Approval Holder shall not enter into any stipulation or settlement modifying or affecting the interpretation or validity of any of the terms or conditions of the development approval without the prior written consent of the County.

D. Successors Bound. "Development Approval Holder" shall include the applicant and the successor'(s) in interest, transferee(s), and assign(s) of the applicant.

Minor variations to this permit which do not affect the overall concept or density may be approved by the Planning Director at the request of the applicant or staff in accordance with Chapter 18.10 of the County Code.

Please note: This permit expires on the expiration date listed below unless you obtain the required permits and commence construction.

Approval Date: _____

Effective Date: _____

Expiration Date: _____

Don Bussey	David Keyon
Deputy Zoning Administrator	Project Planner

Appeals: Any property owner, or other person aggrieved, or any other person whose interests are adversely affected by any act or determination of the Zoning Administrator, may appeal the act or determination to the Planning Commission in accordance with chapter 18.10 of the Santa Cruz County Code.

CALIFORNIA ENVIRONMENTAL QUALITY ACT
NOTICE OF EXEMPTION

The Santa Cruz County Planning Department has reviewed the project described below and has determined that it is exempt from the provisions of CEQA as specified in Sections 15061 - 15332 **of** CEQA for the reason(s) which have been specified in this document.

Application Number: 05-0461
Assessor Parcel Number: 041-232-24
Project Location: 9705 Monroe Ave. Extension

Project Description: Construct a non-habitable accessory structure

Person or Agency Proposing Project: Dee Murray

Contact Phone Number: (831) 475-5334

A. ____ The proposed activity is not a project under CEQA Guidelines Section 15378.
B. ____ The proposed activity is not subject to CEQA as specified under CEQA Guidelines Section 15060 (c).
C. ____ **Ministerial Proiect** involving only the use of **fixed** standards or objective measurements without personal judgment.
D. ____ **Statutorv Exemption** other than a Ministerial Project (CEQA Guidelines Section 15260 to 15285).

Specify type:

E. __X__ **Categorical Exemption**

Specify type: 15303(e): Construction **of** small structures

F. Reasons why the project is exempt:

Construction of **an** accessory structure

In addition, none of the conditions described in Section 15300.2 apply to this project.

_____ Date:_____
David Keyon, Project Planner

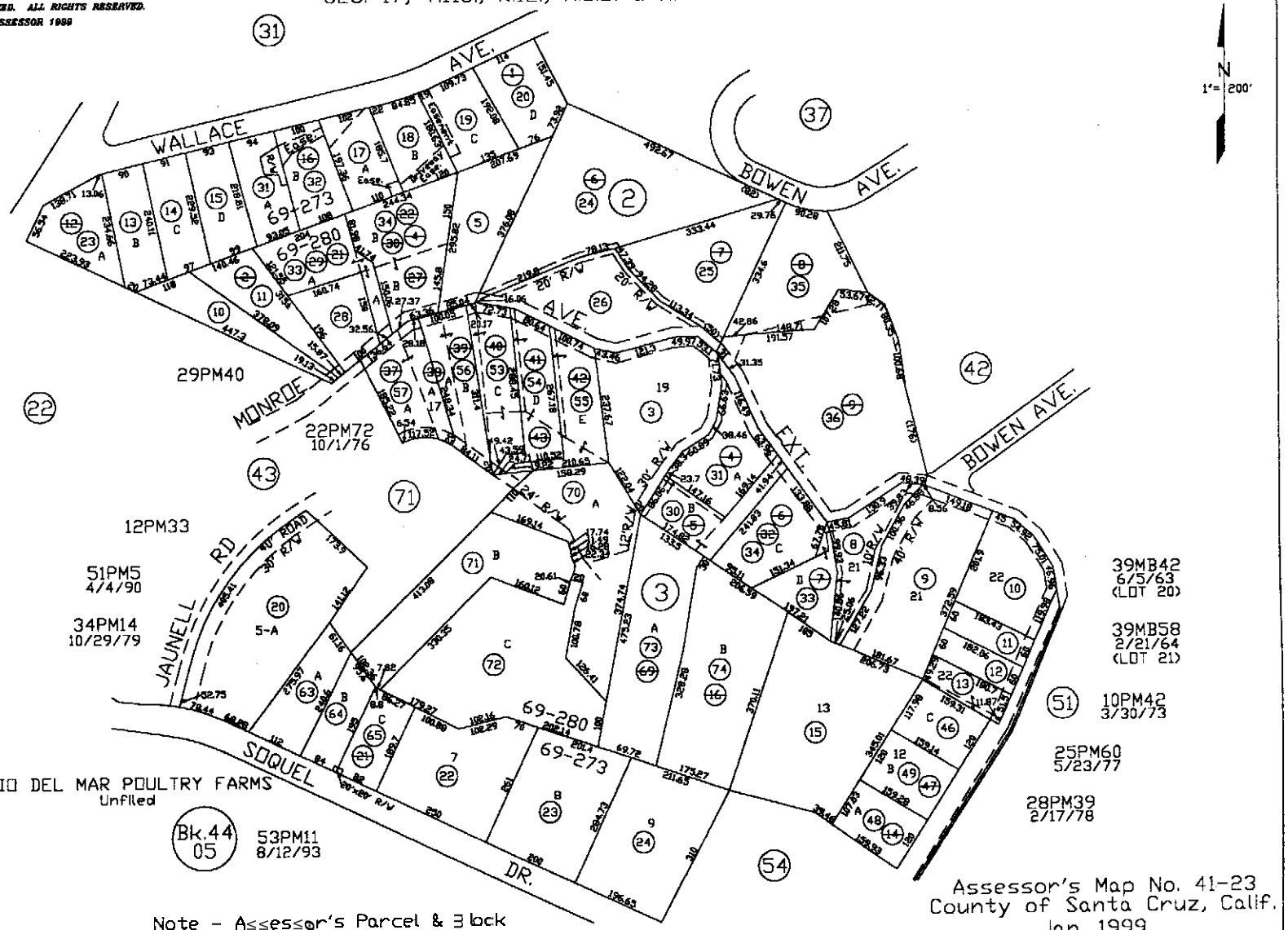
EXHIBIT D

FOR TAX PURPOSES ONLY

PUR. APTOS RANCHO
SEC. 17, T.11S., R.1E., M.D.B. & M.

Tax Area Code
69-273 69-280

41-23



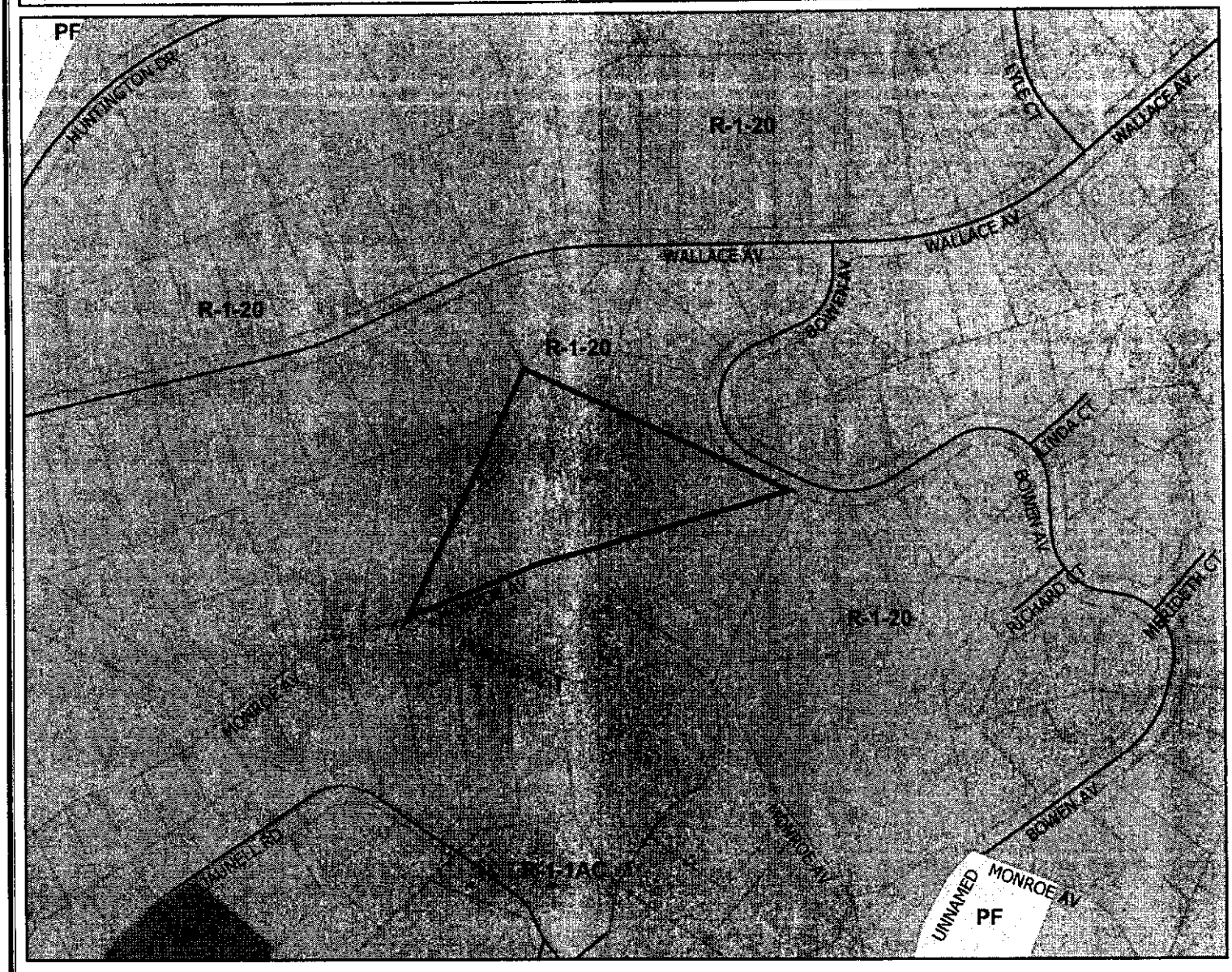
Note - Assessor's Parcel & Block Numbers Shown In Circles.

Assessor's Map No. 41-23
County of Santa Cruz, Calif.
Jan. 1999

Electronically Redrawn 1/6/99 rm
Rev 5/5/99 CB (TCA)
Rev 8/27/02 BD (per to pg 71)

EXHIBIT E

Zoning Map



0 200 400 800 1,200 1,600 Feet

Legend

- APN 041-232-24
- Assessors Parcels
- Streets
- RESIDENTIAL-SINGLE FAMILY (R-1)
- PUBLIC FACILITY (PF)
- RESIDENTIAL-MULTIFAMILY (RM)

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Map Created by
County of Santa Cruz
Planning Department
July 2005

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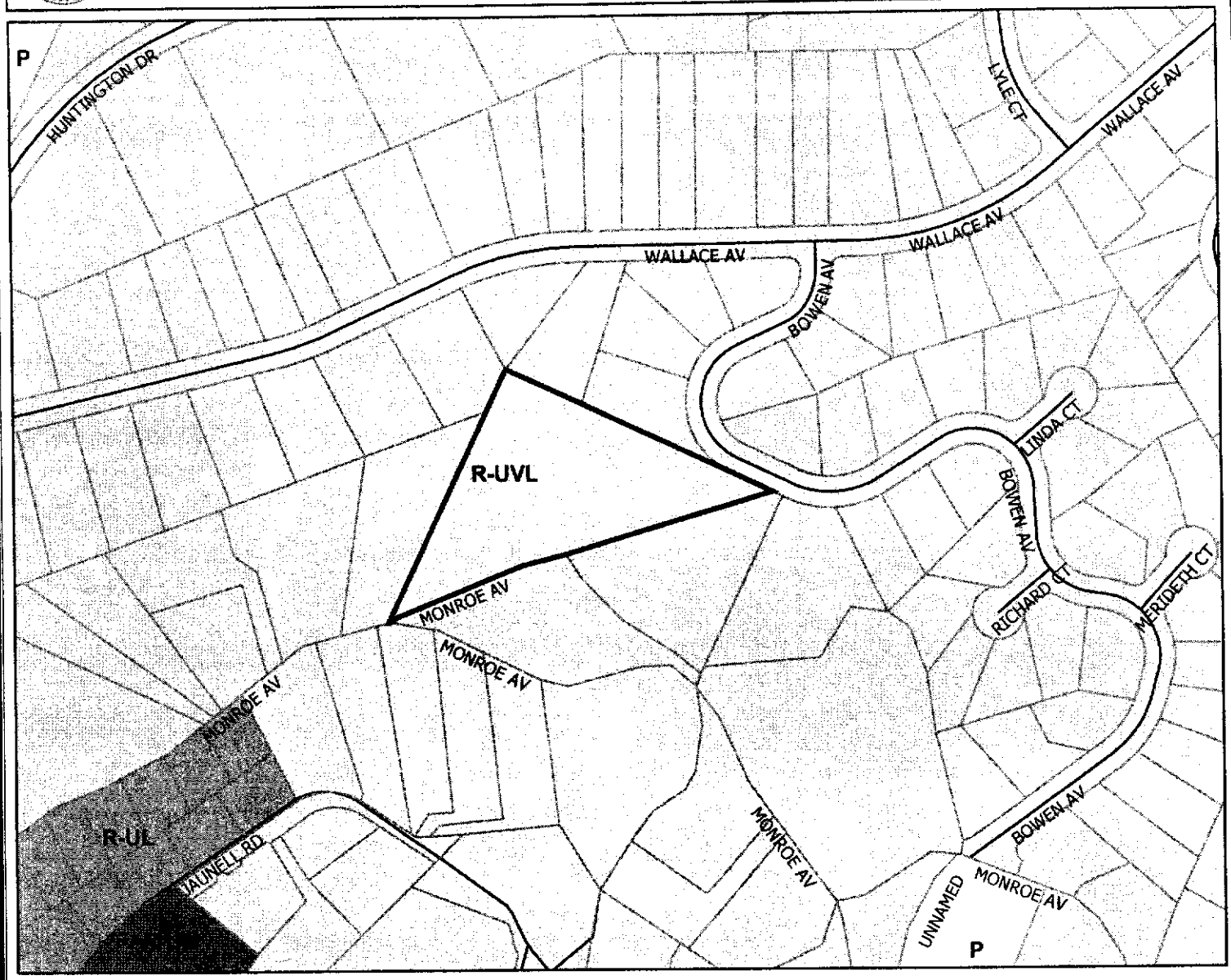
General Plan Designation Map



0 200 400 800 1,200 1,600 Feet

Legend

- APN 041-232-24
- Assessors Parcels
- Streets
- Residential - Urban Very Low Density (R-UVL)
- Residential - Urban Low Density (R-UL)
- Residential - Urban Medium Density (R-UM)
- Public Facilites **(P)**

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Map Created by
County of Santa Cruz
Planning Department
July 2005

Forest City Consulting
Matt Horowitz
PMB # 305
225 Crossroads Boulevard
Carmel, CA 93923
831-464-9302

September 28,2005

Don Connolly
9705 Monroe Av.
Aptos, CA
95003

Re: Arborist Report for 9705 Monroe Ave. (APN#041-232-24)

Dear MI. Connolly:

Introduction

This letter is to present my findings on the trees located on the parcel descrii as APN 041-232-24 located in Aptos California. Please refer to the attached Tree Map for the exact location of these trees, (numbered 1 through 51). You asked me to evaluate the construction project, document the condition of the trees, and describe protection measures for retained trees.

I inspected the trees on September 23,2005 and made the following observations:

Observations

The site is located in a residential neighborhood in Aptos. Bowen Ave borders the eastern edge of the building site. The site is moderately sloped near Bowen with steeper slopes occurring west of the building site.

The forest is mainly a mature stand of coast live oak trees (*Quarcus agrifolia*). There are a few mature Douglas fir (*Pseudotsuga menziesii*) trees present as well. Smaller oaks along with California Laurel (*Umbellularia californica*) and Califomia Hazel (*Corylus cornuta var californica*) make up the understory.

Invasive English Ivy (*Hedra Helix*) covers much of the site. This ivy is climbing the Coastal Live Oaks (*Quercus agrifolia*) as well as covering much of the ground. Other ground cover includes mixed varieties of blackberries (Rubus species) and poison oak (Rhus *diversiloba*)

EXHIBIT C

The following table is an inventory of all trees near the proposed project Please note all trees were measured at 4.5 feet above *grade* (dbh) using a standard diameter tape.

Tree Inventory

Tree Inventory		APN 041-232-24			
Tree #	Species	dbh in inches	remove?	condition	Comments
1	oak	9	n		
2	oak	16	n		
3	oak	9	n		2-stem 9,5
4	oak	16	n		
5	fir	24	n		
6	oak	6	n		
7	oak	10	y		compromised by driveway
8	oak	5	y		compromised by driveway
9	oak	15	y		compromised by driveway
10	oak	13	y		compromised by driveway
11	fir	48	n		3-stem 48,36,30
12	oak	27	n		
13	oak	17	y		2-stem 17,7 compromised by structure
14	oak	20	y		compromised by structure
15	oak	16	y		3-stem 16,14,10 compromised by structure
16	oak	14	y		compromised by structure
17	oak	8	y	extremely poor	compromised by structure
18	oak	12	y		compromised by structure
19	oak	12	y		compromised by structure
20	oak	10	y		compromised by structure
21	oak	8	y		compromised by structure

22	oak	11	y		compromised by structure
23	oak	27	y		compromised by structure
24	oak	12	y		compromised by structure
25	oak	12	y		compromised by structure
26	oak	12	y		compromised by structure
27	oak	9	y		compromised by structure
28	oak	10	y		compromised by structure
29	oak	11	n		
30	oak	9	y		compromised by retaining wall
31	oak	24	n		3-stem 24,15,14
32	oak	19	n	turkey tail conk	2-stem 19,11
33	oak	28	n		2-stem 28,27
34	oak	12	n		
35	oak	23	y		2-stem 23,19 compromised by structure
36	oak	10	y		2-stem 10,8 compromised by grading
37	oak	16	y		5-stem 16,13,10,5,5 compromised by grading
38	oak	18	n		
39	oak	12	n		
40	oak	23	y		3-stem 23,16,16 compromised by grading
41	oak	16	y		2-stem 16,12 compromised by grading
42	oak	9	y		compromised by structure
43	oak	21	n		

44	oak	17	n		5-stem 17,17,17,13, 12
45	oak	15	n		2-stem 15,13
					3-stem 15,15,13
47	oak	15	n	some heart ro	
48	oak	19	n	some heart ro	3-stem 19,16,14
					2-stem 23,19
50	oak	18	Y	heart rot	3-stem 18,15,14,
52	oak	33	n		

Ivy is climbing up *onto many* of the *oaks'* boles (trunks) into the crowns. This ivy is holding moisture against the boles and creating an unhealthy situation for the tree's hygiene. The ivy is also replacing the *oaks* foliage and reducing the trees ability to photosynthesize. Symptoms of stress from the ivy include reduced *growth* and vigor as well as dying limbs.

There were no symptoms of Sudden *Oak* Death *(Phytophora ramorum)* noted on any *oaks.*

Analysis and Testing

All observations were made from the ground. No root inspection was made and no invasive testing was done.

Discussion

Trees 7, 8, 9 and 10 all fall into the footprint of the proposed driveway. Trees 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 35 and 42 all fall into the footprint of the proposed structure. Tree 30 is compromised by the *retaining* wall that will protect trees 29,31, 32, 33 and 34 from proposed *grading.* Proposed *grading* compromises all *trees* 36, 37, 40, 41 and 50.

Approximately 995 cubic yards of material will be removed from the building area
Approximately 235 cubic yards of material will be used as fill in the parking area. Excess fill will be removed to an approved dumpsite.

Conclusions

Removal of the *trees* listed in the discussion section is necessary for the completion of the project This project as designed seeks to retain a visual barrier between Bowen and the home on the northwest edge of the site by retaining trees 29, 31, 32, 33 and 34. Setback and slope considerations preclude moving the footprint of the project to retain more of the trees.

Recommendations

I recommend removing trees listed in the discussion to allow for construction with the exception of trees 29, 31, 32, 33 and 34.

All trees on the site are also being stressed by invasive ivy growth. Ivy should be removed from the boles of trees as much as possible to help improve the health of the retained oaks and increase forest sanitation. To remove ivy, first cut ivy stems growing up boles at the root crown. If this is all that time allows it will go a long way to help the oaks. If time allows more work, remove as much ivy as possible from the oak's boles by hand pulling. Continue to remove ivy on the ground from below the dripline of the oaks as time permits. Caution should be used when clearing the ivy from the ground on the steep slopes. Clearing the ivy in late spring can reduce erosion caused by rain and allow time for native plants to reclaim the slopes. The ivy will need to be re-cleared periodically to protect the oaks. Please refer to the publication "A Plague of Plants" published by the Wildlands Restoration Team for more details on controlling ivy.

Dead and diseased wood should be removed from the oaks periodically.

Protection of retained trees

The trees to be retained will be protected from damage by the construction related activities. Most of the retained trees will be located away from development activities and can be easily protected by staging demolition and construction activities away from the trees. The primary method of limiting work areas away from the trees will be by installing a Tree Protection Fence.

Tree Protection Fence (TPF)

A temporary fence should be erected on the property and maintained through construction. The fence will incorporate the dripline of each retained tree, where possible.

All areas protected by the TPF shall be considered off-limits during all stages of development. These areas shall not be used to park cars, store materials, pile debris, or place equipment. Gates into the protected areas may be installed to allow normal residential use of the property.

Utility trenching

When possible, utilities should be placed in the same trench. Care will be taken to avoid trenching on two sides of a tree. Major roots encountered will be tunneled under or bridged over and retained when possible. The portion of the utility trenching within the area protected by the TPF shall be dug using hand-tools or with light equipment under the supervision of a qualified arborist or forester.

Roots encountered

Roots encountered during trenching, grading and excavation that are not to be retained will be cleanly cut to promote re-growth and to prevent increased damage from breaking the root closer to the tree than is necessary. If cutting the root(s) will significantly affect the stability or vitality of the tree, the roots will either be bridged over or tunneled under

where feasible

Pruning for construction

Branches located close to construction activities are subject to breakage from contact with heavy equipment and materials. A properly pruned branch will heal faster and is generally less damaging to the tree than a broken branch. Branches subject to breakage should be pruned when such pruning will not cause significant damage to the health, vitality and safety of the tree. Pruning should he conducted under the supervision of an Arborist certified by the International Society of Arboriculture.

Construction contracts

All construction *contracts* for the project shall include a provision requiring that all contractors and subcontractors performing work *on* this project be given a *copy* of the arborist report and conditions of approval and *agree* to implement the provisions of the arborist report and conditions ofapproval. In addition, the contracts shall also identify a County approved Arborist or Forester to be available to interpret this report or provide additional recommendations.

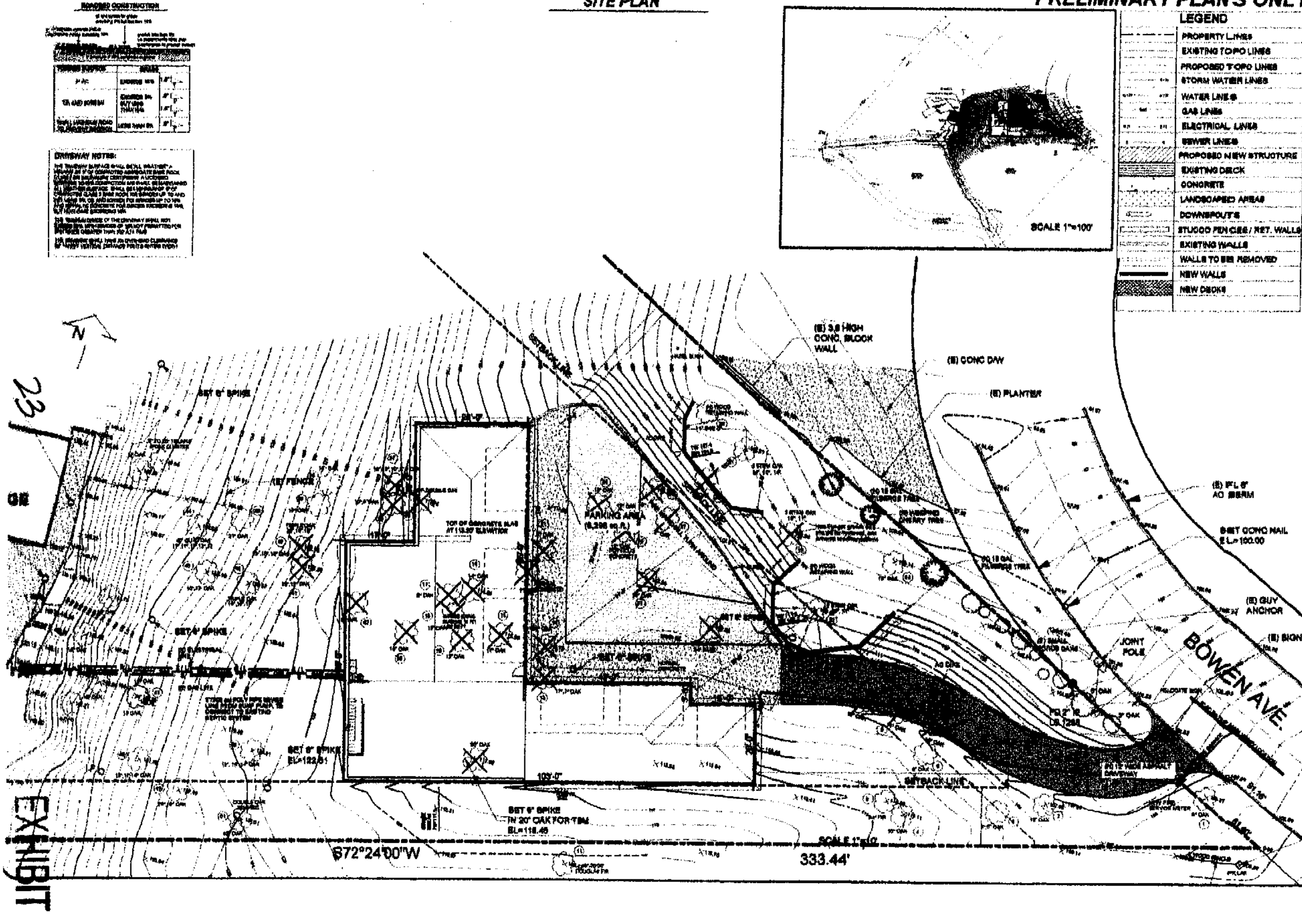
Sincerely,

Matt Horowitz

Matt Horowitz
Certified Arborist/Utility Specialist #3163
Member International Society Of Arboriculture
Member California Invasive Plant Council

SITE PLAN

PRELIMINARY PLANS ONLY



LEGEND
PROPERTY LINES
EXISTING TOPO LINES
PROPOSED TOPO LINES
STORM WATER LINES
WATER LINES
GAS LINES
ELECTRICAL LINES
SEWER LINES
PROPOSED NEW STRUCTURE
EXISTING DECK
CONCRETE
LANDSCAPED AREAS
DOWNSPOUTS
STUCCO FENCES / RET. WALLS
EXISTING WALLS
WALLS TO BE REMOVED
NEW WALLS
NEW DECKS

DRIVEWAY NOTES:

REVISIONS	BY

VEVANG ARCHITECTURE INC.
RESIDENTIAL DESIGN
(831) 724-5234

OWNER
Don Connolly
9705 Monroe Ave.
Aptos, Ca. 95003
(831) 685-1967

SITE PLAN

DATE: 7/19/05
SCALE: 1"=10'
DRAWN BY: KEVIN & LEILANI VEVANG
JOB: Connolly

SHEET
2

COUNTY OF SANTA CRUZ

PLANNING **DEPARTMENT**
701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
(831) 454-2580 **FAX** (831) 454-2131 TOO (831) 454-2123
TOM BURNS, PLANNING DIRECTOR

January 19,2006

Dee Murray
2272 Kinsley Street
Santa Cruz, CA, 95062

Subject: Review **of** Geotechnical Investigation **by** Haro, Kasunich *8* Associates, Inc.
Dated January **9,2006;** Project # **SC9059**
APN **041-232-24,** Application #: **06-0017**

Dear Applicant:

The purpose of this letter is to inform you that the Planning Department has accepted the subject report and the following items shall be required:

1. All construction shall comply with the recommendations of the report.

2. Final plans shall reference the report and include a statement that the project shall conform to the report's recommendations.

3. Prior to building permit issuance a plan review letter shall be submitted to Environmental Planning. The author of the report shall write the plan review letter. The letter shall state that the project plans conform to the report's recommendations.

After building permit issuance the soils engineer *must* remain involved with the project during construction. Please review the Notice to Permits Holders (attached).

Our acceptance *of* the report is limited to its technical content. Other project issues such as zoning, fire safety, septic or sewer approval, etc. may require resolution by other agencies.

Pleas submit **two** copies of the report at the time of building permit application.

Pl se all the undersigned at (831) 454-3168 if we can be of any further assistance.

Sincerely,

Kent dler
Civil Engineer

Cc: Andrea Koch, Environmental Planning
Donald Connolly, Owner
Haro, Kasunich &Associates, Inc.

(over)

24

EXHIBIT H

NOTICE TO RMIT HOLDERS WHEN A SOILS REPORT HAS BEEN PREPARED, REVIEWED AND ACCEPTED FOR THE PROJECT

After issuance of the building permit, the County requires your soils enaineer to be involved during construction. Several letters or reports are required to be submitted to the County at various times during construction. They are as follows:

1. When a project has engineered fills and/or grading, a letter from your soils engineer must be submitted to the Environmental Planning section of the Planning Department prior to foundations being excavated. This letter must state that the grading has been completed in conformance with the recommendations of the soils report. Compaction reports or a summary thereof must be submitted.

2. **Prior** to placing concrete for foundations, a letter from the soils engineer must be submitted to the building inspector and to Environmental Planning stating that the soils engineer has observed the foundation excavation and that it meets the recommendationsof the soils report.

3. At the completion **of** construction, a final letter from your soils engineer is required to be submitted to Environmental Planning that summarizes the observations and the **tests** the soils engineer has made during construction. The final letter must also state the following: "Based upon our observations and tests. the project has been completed in conformancewith our geotechnical recommendations."

   If the final soils letter identifies any items of work remaining to be completed or that any .portions of the project were not observed by the soils engineer, you will be required to complete the remaining items of work and may be required to perform destructive testing in order for your permit to obtain a final inspection.

EXHIBIT H

Project No. SC9059
9 January 2006

MR. DON CONNOLLY
9705 Monroe Avenue
Aptos, California 95003

Subject: GEOTECHNICAL PLAN REVIEW
Proposed Garage/Workshop
Bowen Avenue
A.P. N 041-232-24
Santa Cruz, County California

Reference: HARO, KASUNICH & ASSOCIATES
Geotechnical Investigation Dated January 2006

JOE L. AKERS CIVIL ENGINEER
Site Plan Sheet C1 of 5 Dated June 2005,
Grading and Drainage Plan Sheet C2 of 5 Dated June 2005
Profiles and Sections Sheet C3 of 5 Dated June 2005
Erosion Control Plan Sheet C5 of 5 Dated July 2005

Dear Mr. Connolly,

As requested, Haro, Kasunich and Associates has performed a geotechnical plan review of the referenced plan sheets prepared by Joe L. Akers and Associates, Civil Engineers. The intent of our review was to confirm that the plans were prepared in general accordance with our recommendations as presented in our geotechnical investigation report referenced above.

Haro, Kasunich & Associates has reviewed only the geotechnical aspects of these plans. We are not the Architects/Designer, Civil or Structural Engineers of Record for this project and accept no responsibility for designs prepared by others. We provide no warranties, either expressed or implied. concerning the dimensions or accuracy of the plans and analysis.

The referenced civil engineering plans show a new garage/workshop utilizing concrete retaining walls and a concrete slab on grade floors with continuous spread footings. The grading plan calls for a shallow (4 foot ±) 2:1 fill slope along the downslope outboard edge to contain the access driveway parking and turnaround areas for the development. Downspouts from roof runoff will be discharged to permeable concrete slabs that infiltrate storm water into a 2 foot thick drainage blanket underlying and supporting this permeable concrete slab. The water will percolate into the subgrade

EXHIBIT H
116 EAST LAKE AVENUE • WATSONVILLE, CALIFORNIA 95076 • (831)722-4175 • FAX (831)722-3202

below. Overflow water not able to be absorbed by the ground will be collected into a perforated pipe on the downslope end and discharged to Bowen Avenue in a controlled manner.

It should be clearly understood concrete slabs are not waterproof, nor are they vapor proof. The aforementioned moisture retardant system will help to minimize water and water vapor transmission through the slab; however moisture sensitive floor coverings require additional protective measures. Floor coverings must be installed according to the manufacturer's specifications, including appropriate waterproofing applications and/or any recommended slab and/or subgrade preparation.

Surface drainage improvements provided by the project civil engineer must be maintained by the property owner at all times. The landscape or drainage contractor must be made aware of the plan/report recommendations. Where surface drainage improvements are not properly provided and/or maintained, foundation or ground movement resulting in graded soil distress can occur.

On the basis of our review, we find the project plans to be in general conformance with our geotechnical investigation referenced above.

We appreciate the opportunity to be of service. If you have any questions, please call our office.

Sincerely,

HARO, KASUNICH AND ASSOCIATES, INC.

John E. Kasunich
G.E. 455

JEK/dk

Copies: 1 to Addressee
3 to Dee Murray
1 to Joe Akers and Associates

EXHIBIT H

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

Based on our investigation, the proposed garage/workshop is feasible for the site provided the recommendations presented in this report are incorporated into the design and construction of the project. Primary geotechnical concerns include foundational elements embedded into firm native material, strong seismic shaking, and site drainage.

The proposed building pad will be cut into the hillside, utilizing a 10 foot high wall to retain the cutslope. The proposed parking area along the outboard portion of the pad will be constructed with engineered fill. The plans indicate the proposed driveway will be graded to include 3 to 4 feet of engineered fill.

The following recommendations should be used as guidelines for preparing project plans and specifications:

Site Grading

1. The geotechnical engineer should be notified **at least four (4) working days prior to any site clearing or grading** so that the work in the field can be coordinated with the grading contractor, and arrangements for testing and observation can be made. The recommendations of this report are based on the assumption that the geotechnical

engineer will perform the required testing and observation during grading and construction. It is the owner's responsibility to make the necessary arrangements for these required services.

2. Where referenced in this report. Percent Relative Compaction and Optimum Moisture Content shall be based on ASTM Test Designation D1557.

3. Areas to be graded should be cleared of all obstructions including loose fill, trees not designated to remain, or other unsuitable material. All unsuitable material should be removed offsite. Existing depressions or voids created during site clearing should be backfilled with engineered fill.

4. Cleared areas should then be stripped of organic-laden topsoil. Stripping depth should be from 2 to 4 inches. Actual depth of stripping should be determined in the field by the geotechnical engineer. Strippings should be wasted off-site or stockpiled for use in landscaped areas if desired.

5. Engineered fill should be placed in thin lifts not exceeding 8 inches in loose thickness, moisture conditioned, and compacted to a minimum of 90 percent relative compaction. The upper 6 inches of pavement and slab subgrades should be

compacted to a minimum of 95 percent relative compaction. The aggregate base below pavements should likewise be compacted to a minimum of 95 percent relative compaction.

6. Materials used for engineered fill should be free of organic material, and contain no rocks or clods greater than 6 inches in diameter, with no more than 15 percent larger than 4 inches. Engineered fill should have a plasticity index (P.I.) <15 but have sufficient binder so that footing and utility trenches will not collapse.

7. All fill slopes should be keyed and benched into firm soil.

8. Fill slopes should have a maximum slope gradient of 2:1 (horizontal to vertical). The outboard edge of fill slopes should be well groomed and compacted. Following grading, exposed slopes should be planted as soon as possible with erosion-resistant vegetation.

9. After the earthwork operations have been completed and the geotechnical engineer has finished observation of the work, no further earthwork operations shall be performed except with the approval of and under the observation of the geotechnical engineer.

Foundations

10. The proposed residence may be supported on conventional spread footing embedded into firm native material.

Conventional Spread Footings

11. All shallow spread footings should be embedded into firm native, non-expansive soil a minimum depth of 15 inches for one-story structures and 18 inches for two story structures.

12. All footing excavations must be checked by the geotechnical engineer before steel is placed and concrete is poured to insure bedding into firm moisture conditioned native soil.

13. Foundations designed in accordance with the above may be designed for an allowable soil bearing pressure of 2800 psf for dead plus live loads. This value may be increased by one-third to include short-term seismic and wind loads.

14. A coefficient of sliding of 0.35 may be used.

EXHIBIT 1

Slabs-on-Grade

15. We recommend that proposed slabs-on-grade be supported on at least 8 inches of non-expansive granular material compacted to 95 percent density. Prior to construction of the slab, the subgrade surface should be proofrolled to provide smooth, firm, uniform surface for slab support. Slab reinforcing should be provided in accordance with the anticipated use of loading of the slab.

16. In areas where floor wetness would be undesirable, a blanket of 4 inches of free-draining gravel should be placed beneath the floor slab to act as a capillary break. In order to minimize vapor transmission, an impermeable membrane should be placed over the gravel. The membrane should be covered with 2 inches of sand or rounded gravel to protect it during construction. The sand or gravel should be lightly moistened just prior to placing the concrete to aid in curing the concrete.

17. Exterior concrete slabs-on-grade should be founded on firm, non-expansive, well-compacted ground. Reinforcing should be provided in accordance with the anticipated use and loading of the slab. The reinforcement should not be tied to the building foundations. These exterior slabs can be expected to suffer some cracking and movement. However, thickened exterior edges, a well-prepared subgrade including

pre-moistening prior to pouring concrete, adequately spaced expansion joints, and good workmanship should minimize cracking and movement.

Retaining Walls

18. Retaining walls may be founded on conventional spread footings bearing on firm native soil. Retaining walls should be designed to resist active earth pressures and any additional surcharge loads. For design of fully drained retaining walls, the following criteria may be used:

A. Unrestrain d walls should b designe3 to resist an active earth ressure equivalent to a fluid weight of 35 pcf for level backfills, and 50 pcf *for* sloping backfills inclined up to 2:1 (horizontal to vertical). Restrained walls should be designed to resist a rectangular distribution of **25H** psf per foot of wall height for level backfills, and **35** H psf per foot of wall height for sloping backfills (2:1 horizontal to vertical) where H is the height of the wall.

B. A passive pressure of **360** pcf (equivalent fluid weight) can be used for footing set **flush** against native soil.

C. Use a coefficient of friction between base of foundation and native soils of **0.35.**

19. For the above lateral pressures, we assumed the walls will be fully drained to prevent hydrostatic pressure behind the walls. Drainage materials behind the wall should consist of a **1** foot curtain of ¾ inch angular drain rock wrapped in a geotextile drainage fabric. The drain rock should extend from the base of the walls to within 12 inches of the top of the backfill. The drainage material should be at least 12 inches thick. **A** perforated pipe should be placed (holes down) about **4** inches above the bottom of the wall and be tied to a suitable drain outlet. Wall backdrains should be plugged at the surface with clayey material to prevent infiltration of surface runoff into the backdrains.

20. Surface runoff from the slopes above retaining walls should be collected and discharged in a controlled manner. If provisions are not made to collect runoff, some water may flow over the top of retaining walls during heavy rainfall.

Site Drainage

21. Thorough control of runoff is essential to the performance of the project.

22. Surface runoff from driveways. patios, roof surfaces and other hardscape areas must be collected and discharged into existing or new drainage facilities, which carry the accumulated storm water away from the perimeter of the garage/workshops and discharge the runoff in a controlled manner.

23. Roof gutters should be placed around eaves. Discharge from the roof gutters should be conveyed away from the downspouts with solid conduit pipe or on driveways discharging the runoff in a detention system to Bowen Avenue in a controlled manner.

24. Surface drainage should include provisions for positive gradients so that surface runoff is not permitted to pond adjacent to foundations and pavements. Surface drainage should be directed away from the building foundations. Surface drainage upslope of the residence should be directed away from the top of retaining walls and building foundations by concrete swales or subdrains.

25. No concentrated surface or roof runoff should be allowed to flow on to the slope located adjacent to the building pad and parking area.

26. The migration of water or spread of extensive root systems below foundations, slabs, or pavements may cause undesirable differential movements and subsequent damage to these structures. Landscaping should be planned accordingly.

Plan Review, Construction Observation, and Testing

27. Haro, Kasunich and Associates should be provided an opportunity to review project plans prior to construction to evaluate if our recommendations have been properly interpreted and implemented. We should also provide earthwork observations and testing and pier drilling and foundation excavation observations during construction. This allows us to confirm anticipated soil conditions and evaluate conformance with our recommendations and project plans. If we do not review the plans or provide observation and testing services during the earthwork phase of the project, we assume no responsibility for misinterpretation of our recommendations.

EXHIBIT 1